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ASX release

Monday, 11 August 2014

### Direct Shipping Ore Inferred Resource declared for Bauxite Hills BH6 Tenement

#### **Highlights**

- A 19.85 million tonne Direct Shipping Ore (DSO) JORC compliant inferred resource has been estimated for the Bauxite Hills project BH6 tenement (Refer Table 1). Cape Alumina (ASX: CBX) had previously announced on 10 February 2012 a beneficiated bauxite inferred resource at BH6 of 15.1 million tonnes and *in-situ* resource of 22.1 million tonnes (Refer Table 2).
- Cape Alumina is pleased with the high quality of the DSO product which, at 51.2% Al<sub>2</sub>O<sub>3</sub>,
  has a similar total alumina level to the beneficiated product.
- The average reactive silica level (at 150°C) is also attractive at 6.7% and is only slightly higher than that of the beneficiated product (5.4%).
- BH1 and BH2 bauxite plateaus are also expected to contain a DSO resource, subject to the further activities referred to below.
- Key features of the Bauxite Hills project which contribute to improve its value include its high alumina content and its location which is very close to coastal waters and international shipping routes.
- The production of DSO avoids a number of significant costs in comparison to production of a beneficiated bauxite product, including:
  - o reduced infrastructure costs with no requirement for a large beneficiation plant; and
  - significantly reduced water, energy and tailings dam requirements.
- Cape Alumina will now progress reviewing fund raising options as additional funds will be required to enable the following activities to proceed, all of which are intended to add further value to the Bauxite Hills project:
  - extend the resource work to the BH1 and BH2 bauxite plateaus to investigate a possible DSO resource at each of them;
  - undertake additional technical and material handling studies, including bauxite characterisation work, to further define project costs and economics;
  - undertake further analyses of the in-fill drilling samples collected in the 2012 drilling campaign to enable an indicated or measured resource to be delineated; and
  - commence dry-season environmental works to progress the environmental approvals of the project which were started in 2012.



The Bauxite Hills mine and port project is situated 95 kilometres north of Weipa on Queensland's Cape York Peninsula and five kilometres south-east of the port at Skardon River (see Figure 1). Western Cape York is world-renowned for its deposits of high-quality, export-grade bauxite.

A recently completed internal review for Bauxite Hills has concluded that if a Direct Shipping Ore (DSO) product can be produced and transhipped via the Skardon or Ducie rivers then a low capital and low operating cost mine would have the potential to increase the economic viability of the project.

This internal review has given management sufficient confidence to push ahead with the preliminary stages of environmental approvals and to complete additional technical studies to firm up the existence of an economically mineable DSO product prior to committing to a feasibility study.

As announced to the ASX on 16 June 2014, the Queensland Government's release of the Regional Interests Area maps has confirmed there are currently no areas of Regional Interest over the Bauxite Hills mine and port project. This is a positive outcome that supports Cape Alumina's continued focus on development of this project, subject to the release of the Cape York Regional Plan which has been delayed by some months.

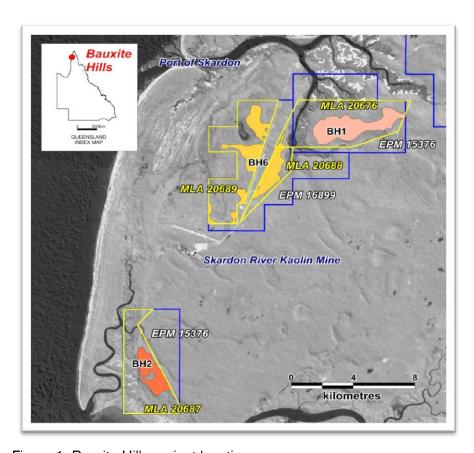


Figure 1: Bauxite Hills project location



#### **Bauxite Market**

Key features of the bauxite market are:

- The bauxite market is continuing to benefit from the ongoing export ban implemented by the Indonesian Government.
- The Government of India is also reported to be increasing the export tax on bauxite from 10% to 20%.
- On the demand front, China, India and the Middle East are also understood to show increasing demand for alumina to supply rising aluminium production and consumption.
- A combination of demand and supply influences are expected to place further upward pressure on bauxite prices in the coming periods.
- Alumina Limited reported to the ASX on 20 May 2014 the following diagram, which shows a
  potential supply short-fall (prior to reflecting the effects of the Indonesian export ban).

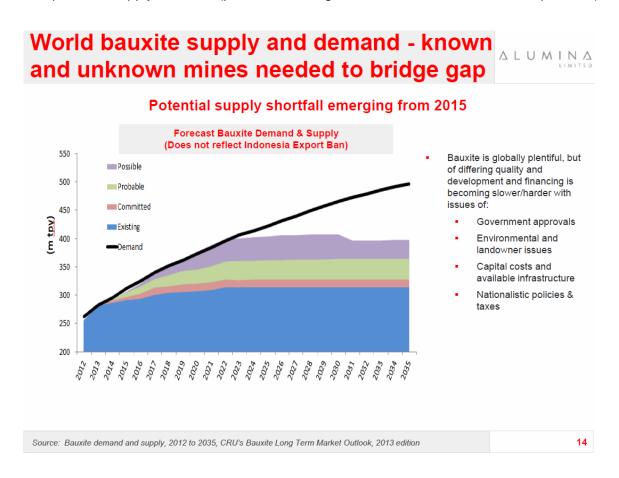


Figure 2: Alumina Limited ASX release on 20 May 2014





Figure 3, below, shows the DSO resource at the BH6 tenement of Bauxite Hills. The close proximity to the Skardon River can also be seen.

The Skardon River or Ducie Rivers are being considered as options for product outloading with shallow draught barges which will tranship product 10 to 20 nautical miles offshore to load Handymax and Panamax size ships.

Transhipping provides a low environmental foot print, with minimal onshore buildings, stockpiles and reduced dust emissions as key benefits of the proposed transhipping system.

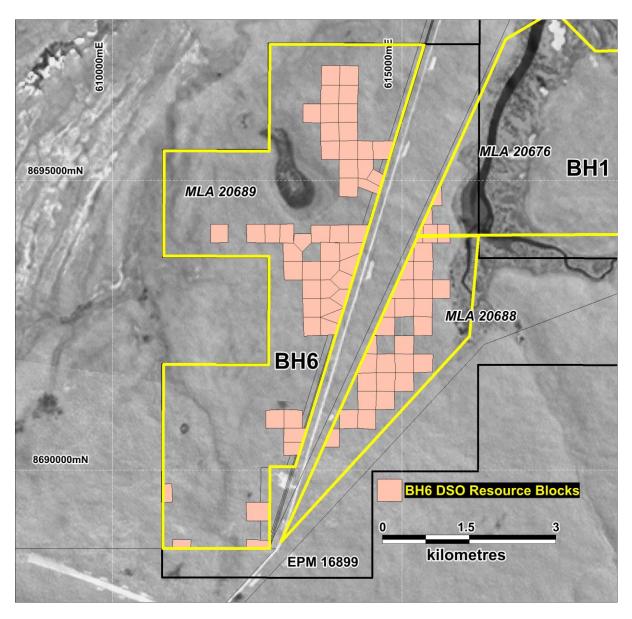


Figure 3: DSO Resource at BH6



### Table 1: BH6 - DSO\* Resource Estimate (Refer Appendix 1)

Area	Resource category	In-situ DSO tonnes (Mt)	Total Al <sub>2</sub> O <sub>3</sub> (%)	Total SiO <sub>2</sub> (%)	Total Fe <sub>2</sub> O <sub>3</sub> (%)	THA** (%)	RXSi*** (%)
вн6	Inferred	19.85	51.2	12.2	8.7	39.3	6.7

\*DSO \*\*THA "Direct shipping ore" is defined as bauxite that can be exported directly with minimal processing trihydrate available alumina (gibbsite alumina + kaolinite alumina – low temperature desilication product (DSP) alumina) at 150°C

\*\*\*RXSi

reactive silica at 150°C

### Table 2: BH6 – Beneficiated\* Resource Estimate (Refer Appendix 2)

Area	Resource category	In-situ tonnes (Mt)	beneficiated tonnes (Mt)	Total Al <sub>2</sub> O <sub>3</sub> (%)	Total SiO₂ (%)	Total Fe <sub>2</sub> O <sub>3</sub> (%)	THA** (%)	RXSi** * (%)
ВН6	Inferred	22.1	15.1	51.2	11.2	10.3	39.1	5.4

\*Beneficiated

The beneficiated tonnage and grades are based on the analyses of the coarse fraction of samples

that have been screened at 1.2mm and the % recovery of that coarse fraction

\*\*THA

trihydrate available alumina (gibbsite alumina + kaolinite alumina - low temperature desilication

product (DSP) alumina) at 150°C

\*\*\*RXSi

reactive silica at 150°C

#### **COMPETENT PERSON'S STATEMENT**

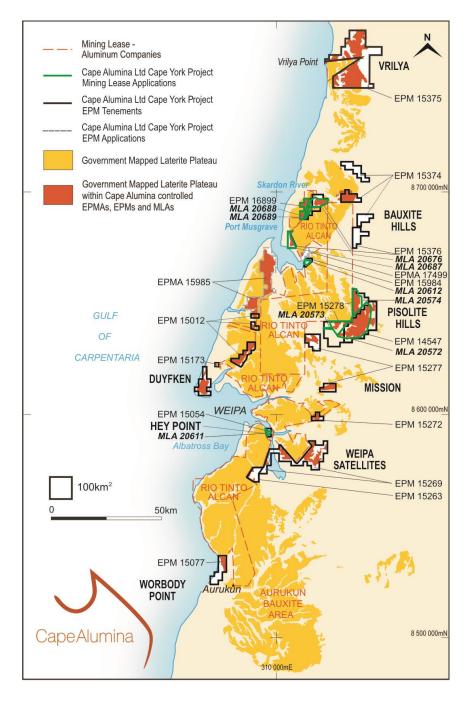
Technical information about exploration targets and ore resources on any Cape Alumina project in this document had been compiled by Neil McLean, who is a consultant for Cape Alumina Limited, a fellow of the Australian Institute of Mining and Metallurgy (F. AusIMM) and is a competent person and has relevant experience to the mineralisation being reported on to qualify as a Competent Person as defined by the 2012 edition of the Australasian Code for Reporting of Minerals Resources and Reserves. Neil McLean consents to the inclusion in the document of the matters based on the information in the form and context in which it appears. The resource information in this document has been released to the Australian Securities Exchange (ASX).





#### **About Cape Alumina**

Cape Alumina controls approximately 1,900 square kilometres of exploration tenements in western Cape York. This is the largest tenement holding in the region outside the Rio Tinto Alcan mining leases (see **Figure 4**).



Key features of the resources at Bauxite Hills and the Weipa region, expected to have positive implications for potential project economics, include:

- Very shallow, free-digging bauxite with minimal overburden thickness and very low strip ratios, which suggests that mining costs will be low;
- Very close to coastal waters and international shipping routes, potentially lowering transport capital and operating costs; and
- High alumina content compared to other Australian bauxite provinces (outside Weipa region) - a lower Bauxite to Alumina ratio reduces overall shipping and refinery input costs.

**Figure 4** (left): Location map of Cape Alumina's western Cape York mining and exploration tenements.

More information: Cape Alumina Limited +61 7 3009 8000



# Appendix 1: JORC Code, 2012 Edition – Table 1 report template

# Bauxite Hills Project - BH6 DSO ("Direct Shipping Ore") Resource Estimate

### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation - BH6 DSO ("Direct Shipping Ore")	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems</li> </ul>	Reverse Circulation aircore drillhole samples were collected in plastic bags over 0.25m intervals through a cyclone. All the material within the interval was collected. All samples were geologically logged at time of collection to determine 1) the type of bauxite material, 2) when to stop the hole, 3) which samples to retain for analyses and 4) which samples to composite over 0.5m intervals.
	<ul> <li>used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	Samples were composited over 0.5m intervals where the geologically logged material was similar or collected as individual 0.25m samples.
	<ul> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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</li> </ul>	The entire sample was collected to ensure, as much as possible, the representivity of the drilled material. Sample weights were between 2 and 5 kg depending on whether they were composited at the time of collection.
	problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	Samples that contained pisolites, in any volume, were assumed to be bauxitic and were retained for analyses.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	The drilling was carried out by Wallis Drilling Pty Ltd using a Mantis 100 Reverse Circulation aircore drill rig mounted on a light 4x4 truck. Shallow (4-6m) holes were drilled vertically using HQ rods with an aircore drill bit with a diameter of 96mm.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade</li> </ul>	Reverse Circulation aircore drilling was used because of its proven reliability in producing high sample recoveries and accurate interval depths. No formal method of measuring and recording recoveries was adopted.

Criteria	JORC Code explanation - BH6 DSO ("Direct Shipping Ore")	Commentary
	and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	To ensure representivity of the material being drilled the entire sample was collected from the drillhole.
		The aircore drilling method was used to ensure collection of as representative a sample as possible.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	All drilled intervals were geologically logged at 0.25m intervals. The logging was done in a qualitative manner and focussed on documenting the amount of pisolitic material, soil, clays and ironstone. In the field the bauxitic horizons were defined by the presence of pisolites and the absence of ferricrete.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to 8maximize representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	No sub-sampling of material was undertaken at the time of collection. The entire sample was collected over 0.25m intervals directly from the cyclone on the drill rig. The samples did not require any drying prior to bagging.  For the analyses of DSO bauxite the following sample preparation was undertaken.  • Create a composite sample (or samples) over the bauxite interval in each hole to be analysed using all the material in sample splits retained from earlier analyses of screened (beneficiated) samples (undertaken under the supervision of Cape Alumina).  • Report weight of received sample.  • Riffle split each sample down to an acceptable size for pulverizing and return split to original bag for storage (undertaken by ALS Global's Virginia laboratory in Brisbane).  • Pulverise the smaller portion of the split to a nominal 85% passing 75 microns (undertaken by ALS Global's Virginia laboratory in Brisbane).
		This preparation is regarded as being appropriate for bauxite analyses.
		As the entire sample was collected in the field no duplicate sampling was

Criteria	JORC Code explanation - BH6 DSO ("Direct Shipping Ore")	Commentary
		possible or deemed to be required.
Quality of assay data	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered and the state of	Sample analyses were undertaken by ALS Global at its Stafford laboratory in Brisbane.
and laboratory	<ul><li>partial or total.</li><li>For geophysical tools, spectrometers, handheld XRF instruments, etc,</li></ul>	The analytical methods applied to the pulverised sample were as follows:
tests  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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	<ul> <li>Total oxides by XRF (ALS code ME-XRF13b). Al<sub>2</sub>O<sub>3</sub>, BaO, CaO, Cr<sub>2</sub>O<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub>, K<sub>2</sub>O, MgO, Na<sub>2</sub>O, P<sub>2</sub>O<sub>5</sub>, SiO<sub>2</sub>, SO<sub>3</sub>, SrO, TiO<sub>2</sub>, V<sub>2</sub>O<sub>5</sub>, Zn, ZrO<sub>2</sub>.</li> <li>H<sub>2</sub>O/LOI by TGA furnace (ALS code ME-GRA05)</li> <li>Available alumina in bauxite by ALS method Al-LICP01 (150°C)</li> <li>Reactive silica by ALS method Si-LOCP01 (150°C)</li> </ul>	
		Two standard reference samples for bauxite were obtained from Geostats Pty Ltd, renumbered, and provided to the laboratory to insert in each batch. One of each sample was inserted approximately every twenty (20) samples. This was regarded as a measure of the accuracy of the laboratory. The results were all within one standard deviation of the certified values indicating no significant bias between sample batches.
		No field duplicate samples were collected as the total sample was submitted for analysis.
		In the laboratory as a Quality Control measure, every 10 <sup>th</sup> sample was completed in duplicate and four laboratory standards and one blank were run in conjunction with the samples and data reported to Cape Alumina.
Verification of sampling and	<ul> <li>alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	In the laboratory every 10 <sup>th</sup> sample was completed in duplicate as listed above.
assaying		Twinned holes have been drilled but have not been analysed as they did not coincide with the 320m by 320m hole pattern selected for analyses.
		Analytical data were provided by the laboratory in csv format and as pdf. The data have been compiled by Cape Alumina into Excel spreadsheets and merged with drill hole location data and sample intervals.

Criteria	JORC Code explanation - BH6 DSO ("Direct Shipping Ore")	Commentary
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Drillhole collar positions were surveyed by Fugro Spatial Solutions Pty Ltd using Trimble RTK GPS units. Three units were used; one base station and two rovers. Easting and Northing co-ordinates were quoted to three decimal places based on datum GDA94 using zone 54. Elevation was quoted to two decimal places using an adopted AHD from Ausgeoid'09.
Data spacing and	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the</li> </ul>	In the BH6 area 505 holes were drilled on a nominal 160m x 160m north-south, east-west grid.
distribution	<ul> <li>degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	Samples from a subset of the drilling program, representing a nominal 320m x 320m grid, were submitted for analyses. The remainder of the samples have been retained in storage.
		This data spacing is deemed sufficient to establish the degree of geological and grade continuity appropriate for an Inferred Mineral Resource estimate.
		For the purposes of the DSO bauxite Mineral Resource estimate, samples have been composited over the entire bauxite interval in each hole as determined by earlier analyses of screened samples over 0.25m and 0.5m intervals.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	All drillholes are vertical and intersect the mineralisation at an approximate 90° angle. The mineralisation is known to be near horizontal with a tabular attitude. This is typical of bauxite deposits in the Weipa area. There is therefore no sampling bias resulting from the orientation of the drilling and that of the mineralised body.
Sample security	The measures taken to ensure sample security.	The samples are collected in large plastic sample bags on site which are secured with industrial quality duct tape and then placed, along with other samples from the drillhole, in large polyweave bags which are secured with cable ties.
		Due to the nature of bauxite mineralisation there is little opportunity to tamper with or otherwise modify the sample.
		The samples used in the DSO bauxite Mineral Resource estimate were

Criteria	JORC Code explanation - BH6 DSO ("Direct Shipping Ore")	Commentary
		stored in secure containers in a locked shed in a secured industrial estate in Raceview, Ipswich, Queensland.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No independent audits of the drilling and sampling have been undertaken.

# **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation - BH6 DSO ("Direct Shipping Ore")	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	BH6 lies within EPM 16899 wholly owned by Cape Alumina Limited. The tenement lies within the Mapoon DOGIT with whom Cape Alumina has a Conduct and Compensation agreement.  The underlying tenement is in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	An appraisal has been undertaken of previous exploration for bauxite.  Although some widespread sampling existed there was no evidence of systematic, grid-based drilling.
Geology	Deposit type, geological setting and style of mineralization.	The deposit type is lateritic bauxite derived from the weathering of aluminous sediments in a tropical to sub-tropical environment.
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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, the Competent Person should clearly</li> </ul>	All the drillhole information, including surveyed collars with easting, northing, elevation and depth, geological logs and analytical data are presented in Excel spreadsheets. These data were used in the estimation of the Mineral Resources. The data are stored within Cape Alumina's server which is regularly backed-up.

Criteria	JORC Code explanation - BH6 DSO ("Direct Shipping Ore")	Commentary
	explain why this is the case.	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	For each drillhole bauxite intervals are based on a cut-off of $\geq$ 45% total $Al_2O_3$ and $\leq$ 15% total $SiO_2$ based on the analyses of beneficiated (+1.2mm) samples. A minimum thickness of 0.5m was applied and the top 0.25m was considered to be overburden and was not aggregated. Down-hole assays were weighted on the basis of both intercept thickness and intercept recovery (wt% +1.2mm material) to determine the weighted average assay for the bauxite zone in each drill intercept. No upper cut-off grades were applied.
		The DSO bauxite samples used in this Mineral Resource estimate were created by compositing the splits over the entire bauxite interval, as defined by the cut-offs described above, for each hole.
Relationship between mineralization widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	All drillholes are vertical and intersect the mineralisation at an approximate 90° angle. The mineralisation is known to be near horizontal with a tabular attitude. Intercept lengths are therefore approximately the same as the true widths of the mineralisation This is typical of bauxite deposits in the Weipa area.
Diagrams	<ul> <li>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.</li> </ul>	See diagrams in the report.
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.	This is not deemed to be Material for the reporting of the Mineral resources which considers all the analytical data.
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.	Apart from the samples obtained from the Reverse Circulation aircore drilling a small number of bulk samples were collected over 1m intervals from the aircore drilling for dispatch to potential customers.

Criteria	JORC Code explanation - BH6 DSO ("Direct Shipping Ore")	Commentary
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	No further exploration drilling is planned at any of the bauxite plateaus.

## **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 - BH6 DSO ("Direct Shipping Ore")	Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	Analytical data was received from the laboratory in csv format and merged with drillhole locational and from-to data in Excel spreadsheets.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	The CP, Neil McLean, supervised the drilling program and was on site a number of times during the program.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	The geological interpretation is grade-based using a threshold of $\geq$ 45% total Al <sub>2</sub> O <sub>3</sub> and $\leq$ 15% total SiO <sub>2</sub> to define economic bauxite. The continuity of the geological interpretation is confirmed with a reasonable degree of confidence. As the data points are spaced at 320m in a nominal grid pattern there is less confidence on the variability of the thickness although drill holes at a closer spacing, that were not analysed, do provide some additional confidence in the geological interpretation. Information from other deposits in the Weipa area, such as Cape Alumina's Pisolite Hills project where Mineral Resource estimates exist, provide additional confidence in the geological model.
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 mineralisation within the BH6 bauxite plateaus is flat lying and tabular in form. It covers an area of 8.5km <sup>2</sup> in several portions separated by another company's Mining Lease.
		The average thickness of the bauxite mineralisation in BH6 is 1.7m.

Criteria	JORC Code explanation - BH6 DSO ("Direct Shipping Ore")	Commentary
		Average overburden thickness is around 0.5m and the topographic surface is generally flat.
Estimation and modelling techniques	<ul> <li>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.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	A simple, weighted polygonal block model was the modelling technique used. It is deemed appropriate for an Inferred Mineral Resource estimate.  Nominally 320m x 320m spaced drillhole data from the BH6 bauxitic plateau were reviewed, entered into an Excel spreadsheet and colour coded to reflect bauxite mineralisation and waste intervals using the following thresholds: 0.25m minimum overburden, 0.5m minimum thickness, ≥45% total Al₂O₃, ≤15% total SiO₂. No upper cut was applied as this is not appropriate for estimating bauxite resources. The analyses of the DSO bauxite were obtained from samples that were created by compositing all the splits over the bauxite intervals, as defined by the above protocols, in each drill hole.  A plan of the drillholes for each plateau was prepared with areas of influence placed around each mineralised drillhole based on the midpoints between adjacent drillholes. The areas were calculated and entered into a spreadsheet.  A simple polygonal volume calculation was made based on the mineralisation interval thickness and area of influence of each drillhole. This volume was multiplied by an assumed bulk density of 1.8 g/cm³ (based on bulk density measurements undertaken on similar mineralisation at the Pisolite Hills deposit located approximately 60km to the southeast of Bauxite Hills in a similar geological setting) to determine the <i>in situ</i> tonnage.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	The tonnes include any natural moisture content but that this content has not been measured.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Mineralised zones are defined by grades ≥45% total $Al_2O_3$ and ≤15% total $SiO_2$ .

Criteria	JORC Code explanation - BH6 DSO ("Direct Shipping Ore")	Commentary
Mining factors or assumptions	<ul> <li>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.</li> </ul>	The resource model assumes open pit mining for all defined resources using loaders and trucks. No blasting is envisaged based on bauxite mining operations elsewhere in the Weipa area.
Metallurgical factors or assumptions	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.	THA (trihydrate alumina) and RxSi (reactive silica) analyses have been undertaken an all beneficiated (+1.2mm) samples as well as the composited, DSO bauxite samples. These results are used together with the results from the XRF analyses to calculate an estimated BA (boehmite alumina) content. The calculation makes the assumption that all Al <sub>2</sub> O <sub>3</sub> is contained within gibbsite, boehmite and kaolinite and that all SiO <sub>2</sub> occurs in kaolinite and quartz. A small proportion of Al <sub>2</sub> O <sub>3</sub> may occur in an amorphous form and result in a small error in the amount of calculated BA. A small number of negative BA numbers were reported from the calculation.
		The preliminary results suggest that the DSO bauxite at BH6 may be suitable for processing to alumina using the high temperature Bayer process.
Environmen- tal factors or assumptions	<ul> <li>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.</li> </ul>	An EIS has not been undertaken over the Bauxite Hills deposits. Small-scale mining of kaolin has been undertaken at the Skardon Mine located to the south of the BH6 deposit indicating that the district is not necessary regarded as 'greenfields'.
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	An <i>in situ</i> density of 1.8 g/cm <sup>3</sup> has been assumed for the resource estimations. No bulk density testwork has been carried out on material from Bauxite Hills. The bulk density assumption is based on

Criteria	JORC Code explanation - BH6 DSO ("Direct Shipping Ore")	Commentary
	<ul> <li>representativeness of the samples.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	determinations undertaken at Cape Alumina's Pisolite Hills bauxite deposits located in a similar geological and topographic setting to the Bauxite Hills deposits approximately 60 km to the southeast. This bulk density represents an average from different materials within the mineralised bauxite zones and is comparable to values generally accepted for bauxite resources on the Weipa plateau.
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	All the Mineral Resources have been classified as Inferred. This reflects the density of sampling at nominal 320m centres, the assumption of a bulk density derived from similar deposits elsewhere in the Weipa area and the utilisation of a manual polygonal block model. This classification appropriately reflects the CP's confidence in the Mineral Resource estimates.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	An internal review of the Mineral Resource estimates has been undertaken. An external review has not been undertaken.
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	No studies have been undertaken to quantify the confidence in the Mineral Resource estimates.

# Appendix 2: JORC Code, 2012 Edition – Table 2 report template

# **Bauxite Hills Project -BH6 Beneficiated Resource Estimate**

### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
Sampling techniques  Drilling	<ul> <li>Nature and quality of sampling (eg 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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple</li> </ul>	Reverse Circulation aircore drillhole samples were collected in plastic bags over 0.25m intervals through a cyclone. All the material within the interval was collected. All samples were geologically logged at time of collection to determine 1) the type of bauxite material, 2) when to stop the hole, 3) which samples to retain for analyses and 4) which samples to composite over 0.5m intervals.  Samples were composited over 0.5m intervals where the geologically logged material was similar or collected as individual 0.25m samples.  The entire sample was collected and dispatched to the laboratory to ensure, as much as possible, the representivity of the drilled material. Sample weights were between 2 and 5 kg depending on whether they were composited.  Samples that contained pisolites, in any volume, were assumed to be bauxitic and were retained for analyses.  The drilling was carried out by Wallis Drilling Pty Ltd using a Mantis 100 Payerse Circulation gissers drill rig mounted on a light 4x4 trule. Shellow
techniques	or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Reverse Circulation aircore drill rig mounted on a light 4x4 truck. Shallow (4-6m) holes were drilled vertically using HQ rods with an aircore drill bit with a diameter of 96mm.
Drill sample	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	Reverse Circulation aircore drilling was used because of its proven

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
recovery	<ul> <li>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.</li> </ul>	reliability in producing high sample recoveries and accurate interval depths. No formal method of measuring and recording recoveries was adopted.
		To ensure representivity of the material being drilled the entire sample was collected from the drillhole.
		The aircore drilling method was used to ensure as representative sample as possible and to avoid grinding of the material as much as possible. This was to ensure that the pisolites, which contain the highest grades of bauxite were not pulverised to any extent. The analyses of the samples were undertaken on material which did not pass a 1.2mm screen.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	All drilled intervals were geologically logged at 0.25m intervals. The logging was done in a qualitative manner and focussed on documenting the amount of pisolitic material, soil, clays and ironstone. In the field the bauxitic horizons were defined on the presence or absence of pisolites and the absence of ferricrete.
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to 18maximize representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	No sub-sampling of material was undertaken at the time of collection. The entire sample was collected over 0.25m intervals directly from the cyclone on the drill rig. The samples did not require any drying prior to bagging.  The following sample preparation was undertaken at the laboratory (ALS Chemex, Virginia, Queensland).  Report weight of received sample Riffle split into two nominal halves and return one split for storage Weigh 'wet' sample Dry sample at 105°C Weigh dried sample and report moisture content Sieve sample to 1.2mm and discard fine fraction Dry at 105°C

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
		<ul> <li>Pulverise entire sample to a nominal 85% passing 75 microns</li> </ul>
		This preparation is regarded as being appropriate for bauxite analyses. Screening of the sample is designed to reduce the amount of reactive silica, some of which is contained within the clay fraction.
		As the entire sample was collected in the field no duplicate sampling was possible or necessary.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	The analytical methods applied to the pulverised sample were as follows:  • Total oxides by XRF (ALS code ME-XRF13b). Al <sub>2</sub> O <sub>3</sub> , BaO, CaO, Cr <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> , K <sub>2</sub> O, MgO, Na <sub>2</sub> O, P <sub>2</sub> O <sub>5</sub> , SiO <sub>2</sub> , SO <sub>3</sub> , SrO, TiO <sub>2</sub> , V <sub>2</sub> O <sub>5</sub> , Zn, ZrO <sub>2</sub> .  • H <sub>2</sub> O/LOI by TGA furnace (ALS code ME-GRA05)  • Available alumina in bauxite by ALS method Al-LICP01 (150°C)  • Reactive silica by ALS method Si-LOCP01 (150°C)  Two standard reference samples for bauxite were obtained from Geostats Pty Ltd, renumbered, and provided to the laboratory to insert in each batch. One of each sample was inserted approximately every fifty (50) samples. This was regarded as a measure of the accuracy of the laboratory. The results were all within one standard deviation of the certified values indicating no significant bias between sample batches.  The laboratory was asked to prepare two duplicate samples from each batch as nominated by Cape Alumina. In each case the duplicates were prepared from the other half of the first split prior to any preparation. The results demonstrate a very small and acceptable error of sampling.  No fled duplicate samples were collected as the total sample was submitted for analysis.  In the laboratory as a Quality Control measure, every 10 <sup>th</sup> sample was completed in duplicate and four laboratory standards and one blank were run in conjunction with the samples and data reported to Cape Alumina.

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
Verification of sampling	The verification of significant intersections by either independent or alternative company personnel.  The very of twice of the last.	In the laboratory every 10 <sup>th</sup> sample was completed in duplicate as listed above.
and assaying	<ul> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Twinned holes have been drilled but have not been analysed as they did not coincide with the 320m by 320m hole pattern selected for analyses.
		Analytical data were provided by the laboratory in csv format and as pdf. The data have been compiled by Cape Alumina into Excel spreadsheets and merged with drill hole location data and sample intervals.
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	Drillhole collar positions within the BH6 area were surveyed by Fugro Spatial Solutions Pty Ltd using Trimble RTK GPS units. Three units were used; one base station and two rovers. Easting and Northing coordinates were quoted to three decimal places based on datum GDA94 using zone 54. Elevation was quoted to two decimal places using an adopted AHD from Ausgeoid'09.
Data spacing and	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the</li> </ul>	In the BH6 area 505 holes were drilled on a nominal 160m x 160m north-south, east-west grid.
distribution	<ul> <li>degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	Samples from a subset of the drilling program, representing a nominal 320m x 320m grid, were submitted for analyses. The remainder of the samples have been retained in storage.
		This data spacing is deemed sufficient to establish the degree of geological and grade continuity appropriate for an Inferred Mineral Resource estimate.
		Samples have been composited over 0.5m intervals where the material is logged as geologically similar. Otherwise the samples represent 0.25m intervals.
Orientation of data in relation to geological	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a</li> </ul>	All drillholes are vertical and intersect the mineralisation at an approximate 90° angle. The mineralisation is known to be near horizontal with a tabular attitude. This is typical of bauxite deposits in the Weipa area. There is therefore no sampling bias resulting from the orientation of

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
structure	sampling bias, this should be assessed and reported if material.	the drilling and that of the mineralised body.
Sample security	The measures taken to ensure sample security.	The samples are collected in large plastic sample bags on site which are secured with industrial quality duct tape and then placed, along with other samples from the drillhole, in large polyweave bags which are secured with cable ties.
		Due to the nature of bauxite mineralisation there is little opportunity to tamper with or otherwise modify the sample.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No independent audits of the drilling and sampling have been undertaken.

## **Section 2 Reporting of Exploration Results**

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

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> </ul>	The BH6 area lies within EPM 16899 wholly owned by Cape Alumina Limited. The tenement lies within the Mapoon DOGIT. Cape Alumina has a Conduct and Compensation agreements with the DOGIT.
	<ul> <li>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.</li> </ul>	The underlying tenement is in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	An appraisal has been undertaken of previous exploration for bauxite.  Although some widespread sampling existed there was no evidence of systematic, grid-based drilling.
Geology	Deposit type, geological setting and style of mineralization.	The deposit type is lateritic bauxite derived from the weathering of aluminous sediments in a tropical to sub-tropical environment
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> </ul>	All the drilhole information, including surveyed collars with easting, northing, elevation and depth, geological logs and analytical data are presented in Excel spreadsheets. These data were used in the

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> <li>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, the Competent Person should clearly explain why this is the case.</li> </ul>	estimation of the Mineral Resources. The data are stored within Cape Alumina's server which is regularly backed-up.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	For each drillhole down-hole assays were aggregated using a cut-off of ≥45% total Al <sub>2</sub> O <sub>3</sub> and ≤15% total SiO <sub>2</sub> .A minimum thickness of 0.5m was applied and the top 0.25m was considered to be overburden and was not aggregated. Down-hole assays were weighted on the basis of both intercept thickness and intercept recovery (wt% +1.2mm material) to determine the weighted average assay for the bauxite zone in each drill intercept. No upper cut-off grades were applied.
Relationship between mineralizatio n widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	All drillholes are vertical and intersect the mineralisation at an approximate 90° angle. The mineralisation is known to be near horizontal with a tabular attitude. Intercept lengths are therefore approximately the same as the true widths of the mineralisation This is typical of bauxite deposits in the Weipa area.
Diagrams	<ul> <li>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.</li> </ul>	See diagrams in the report.
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.	This is not deemed to be Material for the reporting of the Mineral resources which considers all the analytical data.
Other	Other exploration data, if meaningful and material, should be reported	Apart from the samples obtained from the Reverse Circulation aircore

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
substantive exploration data	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.	drilling a small number of bulk samples were collected over 1m intervals from the aircore drilling for dispatch to potential customers.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	No further exploration drilling is planned at any of the bauxite plateaus.

## **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 - BH6 Beneficiated Resource	Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	Analytical data was received from the laboratory in csv format and merged with drillhole locational and from-to data in Excel spreadsheets.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	The CP, Neil McLean, supervised the drilling program and was on site a number of times during the program.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	The geological interpretation is grade-based using a threshold of $\geq$ 45% total Al <sub>2</sub> O <sub>3</sub> and $\leq$ 15% total SiO <sub>2</sub> to define economic bauxite. The continuity of the geological interpretation is confirmed with a reasonable degree of confidence. As the data points are spaced at 320m in a grid pattern there is less confidence on the variability of the thickness although drill holes at a closer spacing, that were not analysed, do provide some additional confidence in the geological interpretation.
		Information from other deposits in the Weipa area, such as Cape Alumina's Pisolite Hills project where Mineral Resource estimates exist,

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
		provide additional confidence in the geological model.
Dimensions	length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	The mineralisation within the BH6 bauxite plateaus is flat lying and tabular in form. It covers an area of 8.5km <sup>2</sup> in several portions separated by another company's Mining Lease.
		The average thicknesses of the bauxite mineralisation in BH6 it is 1.75m. Average overburden thickness is around 0.6m. The topographic surface is generally flat at all the plateaus.
Estimation and modelling	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	A simple, weighted polygonal block model was the modelling technique used. It is deemed appropriate for an Inferred Mineral Resource estimate.
techniques	<ul> <li>of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	320m x 320m spaced drillhole data were reviewed, entered into an Excel spreadsheet and colour coded to reflect Low Monohydrate Bauxite mineralisation (LMB), Mixed Boehmite Trihydrate Bauxite mineralisation (MBH) and waste intervals using the following thresholds: 0.25m minimum overburden, 0.5m minimum thickness, $\geq$ 45% total Al <sub>2</sub> O <sub>3</sub> , $\leq$ 15% total SiO <sub>2</sub> and a minimum thickness of 1m where the two mineralisation types are present in a drillhole. No upper cut was applied as this is not appropriate for estimating bauxite resources.
		A plan of the drillholes was prepared with areas of influence placed around each mineralised drillhole based on the midpoints between adjacent drillholes. The areas were calculated and entered into a spreadsheet.
		For each drillhole down-hole assays were weighted on the basis of both intercept thickness and intercept recovery (wt% +1.2mm material) to determine the weighted average assay for each mineralised zone in each drill intercept. The data were then further weighted on the basis of total mineralised zone thickness, weighted average recovery (wt% +1.2mm material) for each drill intercept and area of influence of each drill hole to determine the weighted average grade of Al <sub>2</sub> O <sub>3</sub> , SiO <sub>2</sub> , Fe <sub>2</sub> O <sub>3</sub> , TiO <sub>2</sub> and LOI within each deposit.
		A simple polygonal volume calculation was made based on the

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
		mineralisation interval thickness and area of influence of each drillhole. This volume was multiplied by an assumed bulk density of 1.8 g/cm <sup>3</sup> (based on bulk density measurements undertaken on similar mineralisation at the Pisolite Hills deposit located approximately 60km to the southeast of Bauxite Hills in a similar geological setting) to determine the <i>in situ</i> tonnage.
		The beneficiated product tonnage was calculated for each deposit by multiplying the <i>in situ</i> tonnage by the weighted recovery (wt% +1.2mm material) for each drillhole intercept.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	The tonnes include any natural moisture content but that this content has not been measured.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	Mineralised zones are defined by grades ≥45% total Al <sub>2</sub> O <sub>3</sub> and ≤15% total SiO <sub>2</sub> . Zones of Low Monohydrate Bauxite (LMB) are defined by BA ≤3% where BA is alumina in boehmite calculated stoichiometrically. Zones of Mixed Boehmite Trihydrate Bauxite are defined by BA >3%. The BH6 mineralisation is deemed to be Mixed Boehmite Trihydrate Bauxite
Mining factors or assumptions	<ul> <li>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.</li> </ul>	The resource model assumes open pit mining for all defined resources using loaders and trucks. No blasting is envisaged based on bauxite mining operations elsewhere in the Weipa area.
Metallurgical factors or assumptions	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	Particle size determination work undertaken at Cape Alumina's Pisolite Hills project has shown that beneficiation using a +1.2mm wet screen will improve the quality of the bauxite by removing a proportion of the reactive silica contained in fine clays. Wet screening is undertaken elsewhere in the Weipa area. All the analyses on drillhole samples from Bauxite Hills have been undertaken on +1.2mm wet screened material.

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
	the basis of the metallurgical assumptions made.	THA (trhydrate alumina) and RxSi (reactive silica) analyses have been undertaken on all samples that meet the cut-off parameters of $\geq\!45\%$ total $Al_2O_3$ and $\leq\!15\%$ total $SiO_2$ . These results are used together with the results from the XRF analyses to calculate an estimated BA (alumina in boehmite) content. The calculation makes the assumption that all $Al_2O_3$ is contained within gibbsite, boehmite and kaolinite and that all $SiO_2$ occurs in kaolinite and quartz. A small proportion of $Al_2O_3$ may occur in an amorphous form and result in a small error in the amount of calculated BA. A small number of negative BA numbers were reported from the calculation.
Environmen- tal factors or assumptions	<ul> <li>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.</li> </ul>	An EIS has not been undertaken over the Bauxite Hills deposits. Small-scale mining of kaolin has been undertaken at the Skardon Mine located to the south of the BH6 deposit indicating that the district is not necessary regarded as 'greenfields'.
Bulk density	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	An <i>in situ</i> density of 1.8 g/cm <sup>3</sup> has been assumed for the resource estimations. No bulk density testwork has been carried out on material from Bauxite Hills. The bulk density assumption is based on determinations undertaken at Cape Alumina's Pisolite Hills bauxite deposits located in a similar geological and topographic setting to the Bauxite Hills deposits approximately 60 km to the southeast. This bulk density represents an average from different materials within the mineralised bauxite zones and is comparable to values generally accepted for bauxite resources on the Weipa plateau.
Classificatio n	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>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,</li> </ul>	All the Mineral Resources have been classified as Inferred. This reflects the density of sampling at 320m centres, the assumption of a bulk density derived from similar deposits elsewhere in the Weipa area and the utilisation of a manual polygonal block model. This classification appropriately reflects the CP's confidence in the Mineral Resource

Criteria	JORC Code explanation - BH6 Beneficiated Resource	Commentary
	<ul> <li>quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	estimates.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	An internal review of the Mineral Resource estimates has been undertaken.
Discussion of relative accuracy/ confidence	<ul> <li>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.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	No studies have been undertaken to quantify the confidence in the Mineral resource estimates.