

# **Binjour Bauxite Resource Increased 51% to 37 Million Tonnes**

# Company resources grow to 137 million tonnes 1

- 37 million tonnes of thick, gibbsite trihydrate bauxite resources at Binjour, central QLD
- Based on 930 drill holes into approximately 75% of the identified bauxite layer that extends over 44 square kilometre Binjour Plateau (Figure 2)

Emerging bauxite producer, Australian Bauxite Limited (**ABx, ASX Code ABX**) holds tenements covering the core of the Eastern Australian Bauxite Province (see Figure 6). ABx considers its Binjour Project located 115kms southwest of Bundaberg Port (see Figure 1) to be a discovery of a major bauxite province which is being assessed to become the company's flagship project over the next 5 years. Resource estimations are confirming the significant potential of Binjour.

A 3 to 15 metres thick layer of bauxite extends over the entire 44 square kilometre Binjour Plateau (see Figure 2). Parts of this bauxite layer totalling 10.4 million tonnes is suitable for simple bulkmining and shipping as "DSO Bauxite 1" whilst other areas totalling 26.6 million tonnes contain silica gel veinlets which require processing with ABx's proprietary TasTech technology to reduce silica and upgrade the Al<sub>2</sub>O<sub>3</sub> content to meet the target production grade.

Mine planning and scheduling is in progress to determine the optimum mining and processing needed to achieve the two main Binjour Products, the grades of which have been established by a bulk sampling program that subsampled 2,000 tonnes of drillhole samples in December 2017.

Product	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	A/S ratio	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI %	Avl Al <sub>2</sub> O <sub>3</sub> % @ 143°	Rx SiO <sub>2</sub> % @ 143°	Avg Yield %
Metallurgical Grade	45%	5%	9.0	23%	4%	23	40%	4.5%	60%
Cement Grade	37%	10%	3.7	28%	4%	20	28%	9.5%	65%

Table 1: Target bauxite products from Binjour based on recent bulk sampling tests

# Table 2: Total Bauxite Resources at Binjour Plateau, Central Queensland

Cut-off: 3	0% Sievec	I Al <sub>2</sub> O <sub>3</sub>		Raw ar	nd Scre	eened B	auxite	Before	TasTech	Sorting			
Resource category	Tonnes millions	Bauxite Thick- ness m	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	A/S ratio	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI %	Avl Al <sub>2</sub> O <sub>3</sub> % @ 143°	Rx SiO <sub>2</sub> % @ 143°	Lab Yield %	Over- burden m	Internal Waste m
Inferred	14.2	4.3	40.7	7.3	5.6	24.7	4.3	22.1	32.3	6.7	80%	8.5	0.3
Indicated	22.8	4.0	33.5	19.2	1.7	24.9	4.2	16.8	15.8	17.4	63%	6.6	0.3
TOTAL	37.0	4.1	36.2	14.6	2.5	24.9	4.2	18.8	22.1	13.3	<b>69</b> %	7.33	0.29

Cut-off grades applied: Minimum 30% Al<sub>2</sub>O<sub>3</sub>, 2m thickness, 100m search ellipse. Leach conditions to measure available alumina "Al<sub>2</sub>O<sub>3</sub> Avl" & reactive silica "Rx SiO<sub>2</sub>" is 1g leached in 10ml of 90gpl NaOH at 143 degrees C for 30 mins. "A/S" ratio is Al<sub>2</sub>O<sub>3</sub>/SiO<sub>2</sub>; values above 6 are good. Tonnage is for bauxite in-situ. Yield is for screening lab samples at 0.26mm which approximates dry screening raw bauxite at 2.5mm. Tonnages requiring no upgrade have 100% yield.

 $^{1\cdot}$  See Resources Table 5 and Definitions Pages 9 & 10





# Figure 1

Locations of Binjour Project, the Toondoon Mining Lease, Brovinia bauxite discovery & Regional Logistics



# Figure 2

Locations of 930 drillholes drilled by ABx across the Binjour Plateau.

Map shows the extent of holes with bauxite above the cutoff-grades for metallurgical bauxite (30% Al203) and cement grade bauxite (Al203 + Fe203 > 60%)



# Table 3: Details of Binjour Bauxite Resources Estimations by Bauxite Type

Cut-off: 3	0% Sieved	Al <sub>2</sub> O <sub>3</sub>				Raw In-	Situ DS	SO <sup>*</sup> Bau	ixite				
Resource category	Tonnes millions	Bauxite Thick- ness	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	A/S ratio	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI %	Avl Al <sub>2</sub> O <sub>3</sub> % @ 143°	Rx SiO <sub>2</sub> % @ 143°	Yield %	Over- burden m	Internal Waste m
Inferred	7.7	4.5	42.0	6.4	6.6	23.7	4.4	22.8	34.3	5.8	100%	9.3	0.3
Indicated	2.7	4.9	41.6	6.4	6.5	23.8	4.5	22.9	34.2	5.9	100%	8.0	0.4
TOTAL	10.4	4.6	41.9	6.4	6.6	23.7	4.4	22.8	34.2	5.8	100%	8.96	0.35

# DIRECT SHIPPING ORE (DSO<sup>\*</sup>)

# **BAUXITE FOR TASTECH**<sup>\*\*</sup> UPGRADE

Cut-off: 3	0% Sievec	I Al <sub>2</sub> O <sub>3</sub>		Sc	reene	d Bauxit	e Befo	ore Tas	Fech Sorti	ng			
Resource category	Tonnes millions	Bauxite Thick- ness m	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	A/S ratio	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI %	AvI Al <sub>2</sub> O <sub>3</sub> % @ 143°	Rx SiO <sub>2</sub> % @ 143°	Lab Yield %	Over- burden m	Internal Waste m
Inferred	3.5	5.0	36.4	5.4	6.7	32.4	3.8	20.9	29.8	4.9	59%	8.0	0.2
Indicated	1.8	4.9	36.1	5.0	7.3	33.1	3.6	20.9	29.9	4.5	61%	5.9	0.5
TOTAL	5.3	5.0	36.3	5.2	6.9	32.7	3.7	20.9	29.8	4.7	60%	7.23	0.30

# HIGH SILICA BAUXITE FOR TASTECH<sup>\*\*</sup> UPGRADE & CEMENT-GRADE BAUXITE

Cut-off: 3	0% Al <sub>2</sub> O <sub>3</sub>			Sc	reene	d Bauxit	te Befo	ore Tas	Fech Sorti	ng			
Resource category	Tonnes millions	Bauxite Thick- ness m	Al <sub>2</sub> O <sub>3</sub> %	SiO <sub>2</sub> %	A/S ratio	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI %	Avl Al <sub>2</sub> O <sub>3</sub> % @ 143°	Rx SiO <sub>2</sub> % @ 143°	Lab Yield %	Over- burden m	Internal Waste m
Inferred	3.0	3.3	39.9	14.0	2.9	19.9	4.1	20.4	25.7	13.1	53%	7.2	0.1
Indicated	18.2	3.8	31.1	24.0	1.3	24.4	4.2	14.8	9.5	21.8	58%	6.4	0.3
TOTAL	21.3	3.7	32.4	22.6	1.4	23.7	4.2	15.6	11.9	20.5	57%	6.55	0.26

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# **Resource Estimation Details**

# 1. Location

Binjour Bauxite Project lies on a plateau located 115kms WSW from Bundaberg Export Port, in the Wide Bay Burnett Region of central Queensland, Australia. It is the best located of perhaps 5 projects in this region that may total in the order of 200 million tonnes of trihydrate gibbsite bauxite.

Mid Point	Mid Northing	Mid Easting	Mid Elevation RL	Projection	Mid Latitude	Mid Longitude
coordinates:	7176062	347586	366 m	WGS84 56S	-25.5249	151.4832

# 2. Logistics: Product Transport Route

**Road Transport:** A transport study is in progress by two land transport operators and involving discussions with government transport officers. The main destination focus is the Port of Bundaberg. Discussions with QLD transport department officers are well advanced.

All roads are gazetted major highways but have axle loading constraints and total truck tonnage restrictions on certain bridges, as is normal in Queensland. Trucking from Binjour to the Port of Bundaberg ranges from 188km to 198km.

**Port Bundaberg** is a river port with inner port restrictions of 200 x 32 metre ship sizes due to swing basin limits and a 9.5 metre channel depth (11m at the loading pocket) at the lowest astronomical tide. However, studies of potential barge transhipment and loading onto Cape Size ships within the outer port limits are being studied in detail

Port Bundaberg connects directly to deepwater shipping routes via well-defined shipping channels with shifting sand seafloors. The shipping channels are located well south of the Great Barrier Reef and will have zero impact on it.

# 3. Tenement Holdings

ABx has two granted exploration permits-mining EPM 18014 Binjour and EPM 18772 Binjour Extension covering the Binjour Plateau. Resources estimated and reported herein are **all in EPM 18014** as shown in Figure 2 above. All tenements are in good standing and are unencumbered.

Other tenements in the area are shown in Figure 3 following and include a granted Mining Lease at Toondoon 25km south of Binjour and exploration tenements (EPMs) at Toodoon and Brovinia.



Figure 3: Tenements in the Binjour Region held by ABx



# 4. Land Status

The Binjour Bauxite Deposit occurs on land comprising freehold farms and lesser State Forest areas. It is not considered strategic cropping land but that will require confirmation in due course.

Native title applies to two small forestry reserve areas that may not be alienated land, covering approximately 7% of the bauxite resources. These can be excluded from any initial mining lease application should they prove to be native title so as to avoid undue project delays.



Figure 4: Land status for the Binjour Bauxite Resources

# 5. Geology

The district was subject to extensive tertiary alkali-basalt volcanic activity followed by deep weathering and topographic inversion (see Figure 5 overleaf). A residual bauxite layer covers the main topographic high, Binjour Plateau. The Bauxite is interpreted to have been deposited as a flat lying of volcanic tuffaceous origin. This strata has been preserved on a series of plateaus which are remnants of an old peneplain surface.

Most bauxite lies beneath a soft, dry red mud horizon of variable thickness (typically 6m to 8m). Much of the high grade bauxite occurs in lenses and bands. Some bauxite zones are considered best suited to cement-grade because of intergranular clay veins (often halloysite-clay) but ABx's proprietary TasTech processing technology may increase yields of metallurgical grade bauxite. Bauxite occurs in both nodular and massive forms with the nodular bauxite sitting directly above the massive bauxite.

Underlying the bauxite is another mottled clay-mud unit which is probably more than 70m thick.

The bauxite generally outcrops on the edges of slopes and has been inferred to be the result of weathering around the edge of the plateau. Good continuity of the bauxite layer is displayed away from the outcropping bauxite, with the same layer being intercepted under the red clay layer well into the plateau.

Because of concealment by the upper mud clay layer there is significant potential for the discovery of additional bauxite resources both at Binjour and regionally.

**Regional bauxite province:** A province of bauxite deposits of various sizes on bauxite-hosting plateau extend south-south-westwards from Binjour Plateau for over 100kms – see Figure 1 above.



- section

bauxite at Binjour contains, in places, some structures interpreted to be tree and ancient palm tree root holes, suggesting a semi-lake setting after bauxite formation.

**Resource Estimation** 6.

# **Drill Statistics**

Basalt

Stream sediment

A total of 930 RC aircore holes have been drilled for 19,098m (average depth 20.5 metres). 30 of these holes are excluded from the database because they were either not on EPM 18014 or were for non-resource purposes. For resource estimation, the results from the 900 aircore holes totalling 18,599m (average depth 20.7m) on EPM 18014 were extracted from the ABx master database system called ABacus.

Loose bauxite pisoliths

In addition, a 6-hole diamond drilling program was done at the end of the aircore drilling programs to assess the geological profile, collect samples for microscopy, petrology, mineralogy and density determinations by gravimetric methods (see below).

#### Drilling procedure and sample recovery

Drilling was undertaken using a light truck mounted reverse circulation rig using compressed air and drilling using the air core method. The rig operates with twin rear wide tyres for low ground pressure and minimal ground disturbance. The rig is fully contained carrying 3m rods and a compressor on board. A field support vehicle is required for mobility.

Drilling is conducted in a semi-random pattern largely governed by access and site availability. Drill spacing is typically between 75m and 150m. Drill chip recovery is extremely consistent at Binjour, mainly because of dry ground conditions above and through the bauxite layer. If the sample recovery was deemed to be significantly lower than expected, the hole was abandoned and a new hole started nearby.

### Location of data points

All drill hole locations were surveyed at the time of drilling using hand held GPS, with accuracy of ±5m. Topographic control was assessed using data from the 3 second SRTM derived digital elevation model. This procedure gives adequate accuracy for the level of the resource which has been defined using inverse distance squared grade interpolation in a 2-dimensional plan projection and confirmed by other methods.



### Sampling technique

Samples were collected at metre intervals and assessed by the geologist on site. All samples suspected of containing bauxite were split from the main sample bag using a broad headed, flat based shovel and placed in a calico bag for testing at ALS Laboratory in Brisbane.

A sub sample is also taken to be tested with the company's own mobile XRF device for rapid results, mainly silica determination. The mobile XRF results are used to lead further drilling.

A small grab sample of each 1 metre long sample is also added into a plastic mud-logger's chip tray. The remainder of the sample is stored in a secure lockup rented from the Forestry Department. All non-bauxite sample intervals are also stored at the lockup. All samples are stored in a neatly ordered pallet system allowing for easy recovery of every sample drilled.

#### Logging and lithology

Each metre interval is described in the field by colour, texture, lithology, apparent moisture and lumpiness (assessed visually). A brief description of the sample may also be written if there are interesting or distinguishing features that need to be recorded separately from the ABx coding system. Each sample, chip tray, and hole rehabilitation is photographed for record keeping and review. 100% of the samples are logged.

The computerised logging information, scans of the had-written log sheets, photos of all samples and the drillhole itself before drilling and after rehabilitation are stored in ABx's proprietary database called ABacus so as to allow real-time inspection of any information (see Data storage below).

#### Quality of assay data and laboratory tests.

The Assay work was completed at a fully certified ALS laboratory in Brisbane, Australia. For Standard XRF runs there was a minimum of 1 Blank, 2 Standards and 2 Duplicates per 43 Regular samples. For available Al<sub>2</sub>O<sub>3</sub> and reactive SiO<sub>2</sub> there was 1 Blank, 3 Standards and 2 Duplicates for 42 Regular samples. For the LOIs, there was 1 Standard and 1 Duplicate per 19 Regular samples. Leach conditions to measure available alumina "AvI Al2O3" and reactive silica "Rx SiO2" were 1g leached in 10ml of 90gpl NaOH at143 degrees C for 30 minutes.

#### **Resource Continuity**

Comparisons of results from twinned holes (Levy, June 2012 "Twinned Holes Report Jun12.doc") suggest that the repeatability or "precision" of individual metre samples is low, probably due to the combined effects of variations in sieving yields in the laboratory and variable quality distributions throughout the bauxite horizon. This is not unusual for bauxite.

However, average grades of the full drill intercepts thicknesses and grades display a greater degree of shortdistance continuity or "precision", probably due to random imprecision factors that average-out over the full bauxite intercept.

This supports the use of resource estimation methods which use full bauxite intercepts as the data points for block modelling, rather than block-modelling methods based on individual metre samples as the data points.

#### Data storage and database integrity

All assay, lithology, and collar data is securely stored on a proprietary Microsoft Access database system known as ABacus. ABacus has been specifically tailored for ABx by consultants GR-FX Pty Limited. The Database has inbuilt checks to ensure database integrity.

All data is checked to ensure it belongs to a valid hole, and that all sample numbers belong to a valid logged sample number that has been entered into the database.

Paper logs can be displayed on screen with the digital data for further verification. The assay data is verified by checking that the totals of at least three different analysis sum to the same total as the original file provided by the laboratory.

A photo of every sample, chip tray, hole rehabilitation, and scanned log sheet is also stored in the ABacus database. All hand written field logs are digitised by a trained database technician. The digital version is then double checked by the relevant geologist to ensure consistency.



#### **Block Modelling**

Resources estimation modelling was undertaken by Scandus Pty Ltd using intercept data provided by ABx. A cross-check estimation was done using a polygonal method which achieved satisfactorily similar results.

The Binjour data was provided to Scandus as intercepts (true width), thickness and assays (for sieved 0.26mm material) and ratios (AvI/Srx, A/S, Waste/Bauxite, Al2O3, avI Al2O3, LOI, SiO2, SiO2rx, TiO2, Fe2O3, thickness of Bauxite and Yield) as length weighted averages, and depth to bottom of overburden.

25x25m Blocks were created in the east and north orientation and the Z value was a nominal 5 m, however the z value was replaced with modelled thickness for volume determinations similar to seam modelling. Polygons were then created to constrain the model, these polygons were drawn based on geological knowledge of the deposit style and topographic constrains. The block model was coded with 'rock type' based on the blocks contained in the provided polygons, as were the intercepts. The estimation was carried out using Inverse Distance Squared, no top cut was used. A search ellipse of 400x400m with a minimum of 1 sample and maximum of 12 samples was used to estimate blocks to the edges of the observed geological/ ore boundary.

This search ellipse was deemed adequate based on variogram analysis which indicated geostatistical continuity at this distance. Confidence in this distance is further strengthened when the geological model for this deposit indicates good horizontal continuity.

The number of samples used in the estimation of each block was recorded as was the distance to the closest sample from the estimated block and this information is used to help classify the blocks. Blocks with fewer than 3 samples (ie. 3 holes) were then removed from the model. Blocks with between 3 and 9 data points were classified as being inferred resources, and blocks with over 9 samples being classified as indicated.

All assays, ratios, thickness Overburden and included dilution were modelled using the same parameters.

#### In-Situ Bulk Dry Density

An average of 1.9 t/m3 Specific Gravity was used to convert Volumes to Tonnes. This value was calculated by gravimetric and water displacement density testing methods based on samples collected from diamond drill core from a 6 hole diamond drilling program (Roach, 2012, "Core Program\_Report\_26102012\_blr.doc"). Results are summarised below:

#### Table 4: In-Situ Dry Bulk Density of Formations at Binjour

#### BINJOUR DENSITY USING GRAVIMETRIC & WATER DISPLACEMENT METHOD (Roach, 2012) Check method - by using core

volumes (assumes uniform

Rock Type	Hole	From	То	Length	Sample Length	Sample Diameter	Weight Grams	Water Volume displaced	Relative Density	Avgs	Agree d SG	Core volume	Weight Grams	SG	Avgs SG
		m	m	m	mm	mm	gms	mls	t/bcm	t/bcm	t/bcm	mls	gms	t/bcm	t/bcm

#### Overlying Red Mud Unit

MCT	BJC_001	2.00	2.10	0.10	110	82	1175	600	1.96			581	1175	2.02	
MCT	BJC_003	6.93	7.06	0.13	130	82	1347	675	2.00	1.886	1.90	687	1347	1.96	1.922
MCT	BJC_008	2.90	3.00	0.10	100	80	895	525	1.70			503	895	1.78	

#### BAUXITE LAYER

B	X BJC_001	12.30	12.55	0.14	140	80	1278	750	1.70			704	1278	1.82	
B	X BJC_002	12.00	12.15	0.15	150	82	1518	825	1.84			792	1518	1.92	
B	х вјс_003	15.24	15.34	0.10	100	80	1002	450	2.23			503	1002	1.99	
B	X BJC_003	15.40	15.48	0.08	80	80	691	375	1.84	1.966	1.90	402	691	1.72	1.810
B	X BJC_004	4.80	4.93	0.13	130	82	1390	600	2.32			687	1390	2.02	
B	X BJC_008	11.07	11.21	0.14	140	82	1351	700	1.93			739	1351	1.83	
B	X BJC_008	13.22	13.33	0.11	110	80	761	400	1.90			553	761	1.38	

#### Other rock types

Bx / Tuff	BJC_001	8.00	8.18	0.18	175	80	1462	900	1.62
Tuff	BJC_004	9.30	9.42	0.12	120	80	998	525	1.90

880	1462	1.66
603	998	1.65



#### **Qualifying statements**

#### General

The information in this report that relate to Exploration Information and Mineral Resources are based on information compiled by Jacob Rebek and Ian Levy who are members of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Rebek and Mr Levy are qualified geologists and Mr Levy is a director of Australian Bauxite Limited.

#### Mineral Resources

Information relating to Mineral Resources herein was prepared and disclosed in compliance with the JORC Code 2012. by lan Levy who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Levy is a qualified geologist and employed as CEO of Australian Bauxite Limited.

Geostatistical block modelling was carried out by independent consultant, Scott McManus using Gemcom mining software. Mr McManus is an experienced resource modelling consultant and a member of the Australian Institute of Geoscientists.

Mr Levy has sufficient experience which is relevant to the style of mineralisation and type of deposit under consid-eration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edi-tion of the Australasian Code for Reporting of exploration Results, Mineral Resources and Ore Resources. Mr McManus and Mr Levy have consented in writing to the inclusion in this announcement of the Exploration Infor-mation in the form and context in which it appears.

More detailed explanations regarding resource methodologies are included in the Appendix.

#### **Disclaimer Regarding Forward Looking Statements**

This ASX announcement (Announcement) contains various forward-looking statements. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which could cause actual values or results, performance or achievements to differ materially from the expectations described in such forward-looking statements. ABx does not give any assurance that the anticipated results, performance or achievements expressed or implied in those

ABx does not give any assurance that the anticipated results, performance or achievements expressed or implied in those forward-looking statements will be achieved.

#### Definitions

True Width: The true-width of the deposit is not known and will be determined by further resource definition drilling.

DSO bauxite: Bauxite that can be exported directly with minimal processing

Averaging method: Aggregated average grades are length-yield-weighted averages of each metre grades & yields.

# For further information please contact:

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About Australian Bauxite Limited	ASX Code ABX	Web: www.australianbauxite.com.au
Australian Bauxite Limited (ABx) has its first bauxite mine	e in Tasmania and	holds the core of the Eastern Australian Bauxite
Province. ABx's 22 bauxite tenements in Queensland, New	v South Wales & Ta	smania exceed 1,975 km <sup>2</sup> and were selected for
(1) good quality bauxite; (2) near infrastructure connected	ed to export ports;	& (3) free of socio-environmental constraints. Al
tenements are 100% owned, unencumbered & free of thin	rd-party royalties. A	Bx's discovery rate is increasing as knowledge
technology & expertise grows.		

The Company's bauxite is high quality gibbsite trihydrate (THA) bauxite that can be processed into alumina at low temperature.

ABx has declared large Mineral Resources at Inverell & Guyra in northern NSW, Taralga in southern NSW, Binjour in central QLD & in Tasmania, confirming that ABx has discovered significant bauxite deposits including some of outstandingly high quality.

At Bald Hill near Campbell Town, Tasmania, the Company's first bauxite mine commenced operations in December 2014 – the first new Australian bauxite mine for more than 35 years. ABx has created significant bauxite developments in 3 states - Queensland, New South Wales and Tasmania. Its bauxite deposits are favourably located for direct shipping of bauxite to both local and export customers.

ABx endorses best practices on agricultural land, strives to leave land and environment better than we find it. We only operate where welcomed.

Directors		Officers	
Paul Lennon Ian Levy Ken Boundy	Chairman CEO & MD Director	Leon Hawker Jacob Rebek Paul Glover	Chief Operating Officer Chief Geologist Logistics & Exploration Manager
Henry Kinstlinger	Company Secretary		



# **Resource Statement, Definitions and Qualifying Statement**

Tabulated below are the Mineral Resources for each ABx Project. The initial ASX disclosure for these Resources is given in the footnotes to the table. Refer to these announcements for full details of resource estimation methodology and attributions.

### Table 5: ABx JORC Compliant Resource Estimates

Region	Resource	Million	Thickness	$Al_2O_3$	SiO <sub>2</sub>	A/S	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	LOI	Al <sub>2</sub> O <sub>3</sub> Avi	Rx SiO <sub>2</sub>	Avl/Rx	% Lab	O'Burden	Int.Waste
	Category	Tonnes	(m)	%	%	ratio	%	%	%	@143°C %	%	ratio	Yield	(m)	(m)
CAMPBELL TOWN	Inferred	1.3	3.0	42.6	3.5	12	25.4	3.5	24.6	36.7	3.0	12	50	2.1	0.1
AREA TASMANIA <sup>7</sup>	Indicated	1.4	3.2	42.5	3.2	14	26.4	3.0	24.5	36.2	2.8	14	55	1.8	0.1
	Total	2.7	3.1	42.5	3.3	13	25.9	3.3	24.5	36.5	2.9	13	52	2.0	0.1
Fingal Rail Cement-	Inferred	2.4	3.3	30.9	19.5		35.4	3.9	16.7					1.9	0.1
Grade Bauxite <sup>8</sup>	Indicated	3.9	3.8	31.1	19.0		35.2	4.0	16.9					1.7	0.1
	Total	6.3	3.6	31.0	19.2		35.3	4.0	16.8					1.8	0.1
DL-130 AREA TAS <sup>1</sup>	Inferred	5.7	3.8	44.1	4.3	10	22.8	3.1	25.0	37.6	3.2	12	55	1.5	0.1
	Total Tas	14.7	3.6	38.2	10.5	n.a.	28.7	3.5	21.4	n.a.	n.a.	n.a.	54	1.7	0.1
BINJOUR QLD <sup>2</sup>	Inferred	14.2	4.3	40.7	7.3	6	24.7	4.3	22.1	32.3	6.7	5	80	8.5	0.3
DSO, Screen & Cement	Indicated	22.8	4.0	33.5	19.2	2	24.9	4.2	16.8	15.8	17.4	1	63	6.6	0.3
	Total	37.0	4.1	44.1	3.6	12	23.1	3.7	24.6	39.0	3.0	13	61	8.9	0.3
TOONDOON QLD <sup>3</sup>	Inferred	3.5	4.9	40.2	7.2	6	25.3	4.9	21.7	32.8	5.2	6	67	1.5	0.0
TARALGA S. NSW <sup>4</sup>	Inferred	9.9	3.1	40.4	5.7	7	24.6	4.1	22.2	35.2	1.9	18	54	0.1	0.2
	Indicated	10.2	3.7	41.3	5.3	8	25.9	4.0	22.9	36.1	1.9	19	55	0.7	0.4
	Total	20.1	5.6	40.8	5.5	7	25.3	4.0	22.6	35.7	1.9	19	55	0.5	0.3
PDM-DS0*	Inferred	7.6	2.5	37.0	6.0	6	38.4	3.5	13.3	22.1*	1.3	17	72	0.2	0.1
	Indicated	10.3	3.1	37.6	3.9	10	40.4	3.7	13.5	22.4*	1.1	20	71	0.7	0.4
	Total	17.8	5.8	37.3	4.8	8	39.6	3.6	13.5	22.3*	1.2	18	72	0.5	0.3
	Total Taralga	37.9	5.7	39.2	5.2	8	32.0	3.8	18.3	35.4	1.6	23	63	0.5	0.3
INVERELL N. NSW 5	Inferred	17.5	4.7	39.8	4.8	8	27.7	4.3	22.2	31.0	4.2	7	61	2.3	
	Indicated	20.5	4.8	40.6	4.7	9	26.9	4.1	22.5	32.0	4.0	8	60	2.4	
	Total	38.0	4.8	40.2	4.7	9	27.3	4.2	22.4	31.6	4.1	8	61	2.4	
GUYRA N. NSW 6	Inferred	2.3	4.2	41.4	3.6	12	26.2	3.3	24.6	35.0	2.8	13	56	3.4	
	Indicated	3.8	5.9	43.1	2.6	16	27.3	3.9	24.5	37.4	2.0	18	61	4.4	
	Total	6.0	5.3	42.5	3.0	14	26.9	3.7	24.5	36.5	2.3	16	59	4.0	
		4074								* PDM is Al	O <sub>o</sub> spinel A	Al <sub>o</sub> O <sub>o</sub> Avl at	225°C is :	>35%	

GRAND TOTAL ALL AREAS 137.1

Explanations: All resources 100% owned & unencumbered. Resource tonnage estimates are quoted as in-situ, pre mined tonnages. All assaying done at NATA-registered ALS Laboratories, Brisbane. Chemical definitions: Leach conditions to measure available alumina "Al2O3 AVI" & reactive silica "Rx SiO2" is 1g leached in 10ml of 90gpl NaOH at 143°C for 30 minutes. LOI = loss on ignition at 1000°C. "AV/Rx" ratio is (Al2O3 AVI)/(Rx SiO2) and "A/S" ratio is Al2O3/SiO2. Values above 6 are good, above 10 are excellent. Tonnage is for bauxite in-situ. Lab Yield is for drill dust samples screened by ALS lab at 0.26mm. Production yields are not directly related and are typically between 60% and 75%. Tonnages requiring no upgrade will have 100% yield. Resource estimates exclude large tonnages of potential extensions, overburden & interburden detrital bauxite and underlying transitional bauxite mineralisation. Production will clarify these materials.

The information above relates to Mineral Resources previously reported according to the JORC Code (see Competent Person Statement) as follows:

- <sup>1</sup> Maiden Tasmania Mineral Resource, 5.7 million tonnes announced on 08/11/2012
- <sup>2</sup> Binjour Mineral Resource, 37.0 million tonnes announced on 18/06/2018 (this report)
- <sup>3</sup> QLD Mining Lease 80126 Maiden Resource, 3.5 million tonnes announced on 03/12/2012
- <sup>4</sup> Goulburn Taralga Bauxite Resource Increased by 50% to 37.9 million tonnes announced on 31/05/2012
- <sup>5</sup> Inverell Mineral Resource update, 38.0 million tonnes announced on 08/05/2012
- <sup>6</sup> Guyra Maiden Mineral Resource, 6.0 million tonnes announced on 15/08/2011
- <sup>7</sup> Initial resources for 1<sup>st</sup> Tasmanian mine, 3.5 million tonnes announced on 24/03/2015
- <sup>8</sup> Resource Upgrade for Fingal Rail Project, Tasmania announced on 25/08/2016

Tabulated Resource numbers have been rounded for reporting purposes. The Company conducts regular reviews of these Resources and Reserve estimates and updates as a result of material changes to input parameters such as geology, drilling data and financial metrics.

### Global Mineral Resources declared to 18/06/2018 total 137.1 million tonnes.





#### Figure 6

ABx Project Tenements & Major Infrastructure in ABx's major bauxite project areas nearest export ports in Eastern Australia as follows, from south to north:

1. Northern Tasmania, south of Bell Bay Port of Launceston

2. Southern NSW Taralga & Penrose pine forest west of Port Kembla

Central Queensland based on the major Binjour Bauxite Project, southwest of Port of Bundaberg



 $\mathcal{X}$ 

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Mineral Resource         Overburden varies from 0 to 12m.           Estimation & modelling         Nature & appropriateness of estimation technique(s) applied & key assumptions, including treatment of externe grade values, domaining.         Method 1: Block model 25m x 25m horizontally inside geological boundaries. Thickness set by intercepts in holes. Grades interpolated Gemcom software by areas asomple length. Samples meeting grade cutoffs accumulated by tornage very filting.           • Availability of check estimates active as the reduction records & whether the account of such data.         • Good consistency between initial estimates & re- estimations after additional drilling.           • The assumptions made regarding recovery of by- products.         • The assent of block model interpolation, the block stach inelation to the average sample spacing & the search employed.         • Bouke tamas many grades, including assiste and pleterious elements.           • Avary assumptions behind modelling of selective mining mints.         • Blocks 25m, 15m, 15m &		depth below surface to the upper & lower limits of	Bauxite thickness varies from 1 to 14 metres.
Estimation & modelling techniques       • Nature & appropriateness of estimation techniques       • Method 1: Block model 25m x 25m horizontally inside geological boundaries. Thickness set by intercepts in holes. Grades interpolated Gemoom software by inverse distance squared methods. Search ellipse 400m.         • Availability of check estimates, previous estimates used.       • Method 2: Block model 25m x 25m horizontally inside geological boundaries. Thickness set by intercepts in holes. Grades interpolated Gemoom software by inverse distance squared methods. Search ellipse 400m.         • Availability of check estimates, previous estimates used.       • Method 1: Block model 25m x 25m horizontally inside geological boundaries. Thickness set by intercepts in holes. Grades interpolated Gemoom software by inverse distance squared methods. Search ellipse 400m.         • Availability of check estimates, previous estimates used.       • Method 1: Block model 25m x 25m horizontals estimates appropriate account of such data.         • The assumptions made regarding recovery of by products.       • Biocks 25m x 25m. Suitis irregular drill spacing of 50 to 75m and fits the gological shapes. Search ellipse 250m and gratis by 150m         • In the case of block model interpolation, the block size in relation to the average sample spacing & the search employed.       • Blocks 25m x 25m. Suitis irregular drill spacing of 50 to 75m and fits the gological shapes. Search ellipse 250m and gratis by 150m         • Available of control the resource estimates.       • Nilinimum thickness of 1.25m, 1.5m & 2m to suit ore geometry & depth. Mine has achieved 1.25m         • Assumptions behind modelling of selective mining mints       • Method		Mineral Resource.	Overburden varies from 0 to 12m.
Indeeling techniques         techniques         interpolation parameters & maximum distance of extrapolation from date points. If a computer assisted estimation method was chosen include a description of computer software & parameters         endescription of computer software & parameters           •         Availability of check estimates, previous estimates &/or mine production records & whethere the Mineral Resource estimate takes appropriate account of such data.         •         Good consistency between initial estimates & re- estimations after additional chilling.           •         The assumptions made regarding recovery of by- products.         •         Buy products are not reported but will be produced.           •         Estimation of deleterious elements or other non- grade variables of economic significance         •         Buy products are not reported but will be produced.           •         In the case of block model interpolation, the block size in relation to the average sample spacing & the search employed.         •         Buxuet here succe estimates.         •           •         Ary assumptions about correlation between variables.         •         Nill         •           •         Assumptions about correlation between variables.         •         Nill         •           •         Ary assumptions about correlation between variables.         •         Nill         •           •         In the case of block model interpolation products.         •         Buxuets by 150m <td>Estimation &amp;</td> <td>Nature &amp; appropriateness of estimation</td> <td>Method 1: Block model 25m x 25m horizontally inside</td>	Estimation &	Nature & appropriateness of estimation	Method 1: Block model 25m x 25m horizontally inside
Interplation parameters         interplation parameters         interplation parameters           issued estimation method was chosen include a description of computer software & parameters         used.         Method 2: each dillisample is allocated an area half wayto a sasted estimation method was chosen include a description of computer software & parameters         issued estimation method was chosen include a description of computer software & parameters         issued estimation method was chosen include a description of computer software & parameters         issued estimation method was chosen include a description of computer software & parameters         issued estimation safet estimates & re-estimations after additional drilling.           •         Availability of check estimates, previous estimates         •         Good consistency between initial estimates & re-estimations after additional drilling.           •         The assumptions made regarding recovery of by-products.         •         Buckte has many grades, including reactive silica (Rx Si26), which is the main deleterious element.           •         In the case of block model interpolation, the block size in relation to the average sample spacing & the samptions about correlation between variables.         •         Biocks 25m x25m. Suits irregular drill spacing of 50 to 75m and fits the geological shapes. Search ellipse 250m along strike by 150m           •         Assumptions about correlaton between variables.         •         Nill           •         Assumptions about correlaton between variables.         •         Nill           <	techniques	technique(s) applied & key assumptions, including	geological boundaries. Thickness set by intercepts in holes. Grades interpolated Gemcom software by inverse.
extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software & parameters used.         Method 2: each drill sample is allocated in area half wayto next holes, to a limit of 60 metres. Tornage is density xarea x sample length. Samples meeting grade cubics accumulated by tornage weighing. Good correlation with Method 1.                A valiability of check estimates, previous estimates &/or mine production records & whether the Mineral Resource estimate takes appropriate account of such data.              Good consistency between initial estimates & re- estimations after additional drilling.              Guod consistency between initial estimates & re- estimations after additional drilling.              Guod consistency between initial estimates & fee estimations after additional drilling.              Guod consistency between initial estimates & fee estimations after additional drilling.              Guod consistency between initial estimates & fee estimation of deleterious elements or other non- grade variables of economic significance              Subscience in the second back weither is the search employed.              Bucks 25m x 25m. Subscience is fighted estimation of how the geological interpretation was used to control the resource estimates.              Nilinimum thickness of 1.25m, 1.5m & 2m to suit or geometry & depth. Mine has achieved 1.25m               Moisture             Cut-off pa- cutting or capping.             Process of validation, checking process used, comparison of modia data to drill hole data, & use of reconciliation data if available.              Nilinig fac- se for with natural moisture, & the method of determination of the moisture content.	coninques	interpolation parameters & maximum distance of	distance squared methods. Search ellipse 400m.
assisted estimation method was chosen include a       next holes, to a limit of 60 metres. Tornage is density xareax sample length. Samples meeting grade cutoffs accumulated by fornage weighting. Good consistences theme the Mineral Resource estimate takes appropriate account of such data.       next holes, to a limit of 60 metres. Tornage is density xareax sample length. Samples meeting grade cutoffs accumulated by fornage weighting. Good consistency between initial estimates account of such data. <ul> <li>Availability of check estimates, previous estimates account of such data.</li> <li>Good consistency between initial estimates 4 re-estimations after additional drilling.</li> <li>Besumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing &amp; the search employed.</li> <li>Ansumptions about correlation between variables.</li> <li>Assumptions about correlation between variables.</li> <li>Description of mow the geological interpretation was used to control the resource estimates.</li> <li>Nili</li> <li>Description of model data to drill hole data, &amp; use of econalitation data in available.</li> <li>Discussion of basis for using or not using grade cutifies are main eresults.</li> <li>Moisture</li> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, &amp; the method of deternination of the adopted cut-off grade(s) or quality rameters applied.</li> <li>Mining factors or assumptions made regarding prossible mining methods.</li> <li>Process of validation, checking processu seq or offrect parameters applied.</li> <li>Mining</li></ul>		extrapolation from data points. If a computer	• Method 2: each drill sample is allocated an area half way to
description of computer software & parameters used.       sample english, Samples meting grade cutoffs accumulated by tonage weighting. Cool correlation with Method 1.         Availability of check estimates, previous estimates & formine production records & whether the Mineral Resource estimates takes appropriate account of such data.       Good consistency between initial estimates & re-estimation between mined results & drill estimates - usually mined yields are higher.         The assumptions made regarding recovery of by-products.       Bryproducts are not reported but will be produced & sold. Viability not dependent on by-products.         Estimation of deleterious elements or other non-grade variables of concomic significance       Buxite has many grades, including reactive silica (Rx SiQ) which is the main deleterious element.         In the case of block model interpolation, the block size in relation to the average sample spacing & the search employed.       Blocks 25m x 25m. Suits irregular drill spacing of 50 to 75m and fits the geological shapes. Search ellipse 250m along strike by 150m         Any assumptions behind modelling of selective mining units.       Minimum thickness of 1.25m, 1.5m & 2 m to suit ore geometry & depth. Mine has achieved 1.25m         Discussion of basis for using or not using grade cuting or capping.       Nil         Discussion of model data tor drill hole data, & use of reconciliation, dreading nethods, by the module data drill hole data, & use of reconciliation data if available.       Nil         Moisture       Whether the tonnages are estimated on a dry basis uppriors as of the adopted cut-off grade(s) or quality miner geost well known.       2 e		assisted estimation method was chosen include a	next holes, to a limit of 60 metres. Tonnage is density x area x
<ul> <li>Availability of check estimates, previous estimates &amp;/or mine production records &amp; whether the Mineral Resource estimates takes appropriate account of such data.</li> </ul> <ul> <li>God Consistency between initial estimates &amp; re- estimations after additional drilling.</li> <li>Moderate correlation between mined results &amp; drill estimations after additional drilling.</li> <li>Moderate correlation between mined results &amp; drill estimations after additional drilling.</li> <li>Moderate correlation between mined results &amp; drill estimates - usually mined yields are higher.</li> <li>By-products are not reported but will be produced &amp; solid. Viability not dependent on by-products.</li> </ul> <ul> <li>In the case of block model interpolation, the block size in relation to the average sample spacing &amp; the search employed.</li> <li>Ary assumptions behind modelling of selective mining units.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Method 12 Smx25m blocks kept inside boundaries.</li> <li>Method 2: Voronoi polygons also inside main boundaries.</li> <li>Description of how the geological interpretation was used of control the resource estimates on a dry basis or with natural moisture, &amp; the method of determination of the moisture content.</li> <li>Cut-off pa- mining methods &amp; parameters when estimating (method) sumptions</li> </ul> <ul> <li>Moderate correlation at a simpofrana explanaling (methods)</li> <li>Mining is s</li></ul>		description of computer software & parameters	sample length. Samples meeting grade cutoffs accumulated by toppage weighting. Good correlation with Method 1
&/or mine production records & whether the Mineral Resource estimate takes appropriate account of such data.       estimations after additional drilling.         Moderate correlation between mined results & drill account of such data.       Moderate correlation between mined results & drill estimates - usually mined yields are higher.         • The assumptions made regarding recovery of by- products.       Busite has many grades, including reactive solica (Rx SlQ) which is the main deleterious element.         • In the case of block model interpolation, the block size in relation to the average sample spacing & the search employed.       Blocks 25m x 25m. Suits irregular drill spacing of 50 to 75m and fits the geological shapes. Search ellipse 250m along strike by 150m         • Any assumptions about correlation between variables.       • Nil         • Assumptions about correlation between variables.       • Nil         • Description of how the geological interpretation was used to control the resource estimates.       • Nil         • Discussion of basis for using or not using grade cutting or capping.       • Nil         • Whether the tonnages are estimated on a dry basis or with natural moisture, & the method of determination of the mosisture content.       • Dry density factor applied so tonnages and grades are on a dry basis. Moisture is measured gravimetrically by weighing wet and after drying         Moisture       • Mining fac- tors or as- sumptions       • Assumptions made regarding possible mining methods, but the assumptions made regarding mining methods b, but the assumptions made regarding mining methods b, but the assumptions made regarding		Availability of check estimates, previous estimates	Good consistency between initial estimates & re-
Mineral Resource estimate takes appropriate account of such data.       Moderate correlation between mined results & drill estimates - usually mined yields are higher.         • The assumptions made regarding recovery of by- products.       • Bauxite has many grades, including reactive silica (Rx Sil) which is the main deleterious element.         • In the case of block model interpolation, the block size in relation to the average sample spacing & the search employed.       • Blocks 25m x 25m x 25m. Suits irregular drill spacing of 50 to 75m and fits the geological shapes. Search ellipse 250m along strike by 150m         • Any assumptions behind modelling of selective mining units.       • Mili         • Description of how the geological interpretation was used to control the resource estimates.       • Nil         • Discussion of basis for using or not using grade comparison of model data to drill hole data, & use of reconciliation data if available.       • Nil         Moisture       • Whether the tonanges are estimated on a dry basis or with natural moisture, & the method of determination of the meisture content.       • Dry density factor applied so tonanges and grades are on a dry basis. Moisture is measured gravimetically by weighing wet and after drying mining diuton. It is always necessary as part of the process of altermining reasonable prospects for evertual economic stardont o consider potential mining methods, but the assumptions made regarding mining methods, but the assumptions made regarding mining methods, but the assumptions made regarding mining methods, but the assumptions of modulation of the exert with a neighbories with energination of the determination of the metastore wither weinther aneplase and grades of products.		&/or mine production records & whether the	estimations after additional drilling.
account of such data.       estimates - usually mined yields are higher.         • The assumptions made regarding recovery of by-products.       By-products are not reported but will be produced & sold. Viability not dependent on by-products.         • Estimation of deleterious elements or other non- grade variables of economic significance       Bautist has many grades, including reactive silica (Rx SiO <sub>2</sub> ) which is the main deleterious element.         • In the case of block model interpolation, the block size in relation to the average sample spacing & the search employed.       Blocks 25m x 25m. Suits irregular drill spacing of 50 to 75m and fits the geological shapes. Search ellipse 250m along strike by 150m         • Any assumptions about correlation between variables.       Minimum thickness of 1.25m, 1.5m & 2m to suit ore geometry & depth. Mine has achieved 1.25m         • Assumptions about correlation between variables.       • Mithod 1 25mx25m blocks kept inside boundaries.         • Discussion of how the geological interpretation was used to control the resource estimates.       • Method 1 25mx25m blocks kept inside boundaries.         • Discussion of basis for using or not using grade cutting or capping.       • Method 1 25mx25m blocks kept inside boundaries.         • Discussion of model data to drill hole data, & use of reconciliation data if available.       • Method 1 25mx25m blocks kept inside boundaries.         • Discussion of model data to drill hole data, & use of reconciliation data if available.       • Method 2 voronoi polygons also inside main boundaries.         • Discussion of model data to drill hole data, & u		Mineral Resource estimate takes appropriate	Moderate correlation between mined results & drill
<ul> <li>The assumptions made regarding recovery of by-products.</li> <li>Broutes are main deterious elements or other non-grade variables of economic significance</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing &amp; the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Assumptions about correlation between variables.</li> <li>Assumptions about correlation between variables.</li> <li>Assumptions about correlation between variables.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>Process of validation, checking process used, comparison of model data to drill hole data, &amp; use of reconciliation data if available.</li> <li>Process of validation, checking process used, comparison of model data to drill hole data, &amp; use of reconciliation data if available.</li> <li>Whether the tomages are estimated on a dry basis. or with natural moisture, &amp; the method of determining fractor sorts or asmining dilution. It is always necessary as part of the process of validations made regarding process for eventual economic extraction to consider potential mining methods, but the assumptions made regarding methods for users or asmining methods, but the assumptions made regarding mining methods, but the assumptions made regarding mining methods, but the assumptions made regarding methors when estimating file models as assumptions made regarding methors beindle proposeds for eventual economic extraction to consider potential mining dimensions &amp; promose when estimating file models and regarding mining methods, but the assumptions made regarding mining methods for accentral mining methods, but the assumptions made regarding mining methods for accentral mining methods for accentral mining methods as ported with an explanation of the when explanation of the basis of the adopted cut-off grade(s) or quality parameters applied.</li> <li>Mining factor so asmi</li></ul>		account of such data.	estimates – usually mined yields are higher.
<ul> <li>Estimation of deleterious elements or other non- grade variables of economic significance</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing &amp; the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Assumptions about correlation between variables.</li> <li>Nii</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using grout using grade cutting or capping.</li> <li>Method 1 25mx25m blocks kept inside boundaries.</li> <li>Method 2: Voronoi polygons also inside main boundaries.</li> <li>Discussion of basis for using grone using grade cutting or capping.</li> <li>Bauxite grades are major elements &amp; normally distributed without outliers : best left uncut.</li> <li>Process of validation, checking process used, comparison of model data to drill hole data, &amp; use of reconciliation data if available.</li> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, &amp; the method of determination of the moisture content.</li> <li>Cut-off pa- rameters or assortions made regarding possible mining methods, but the assumptions sumptions</li> <li>Mining fac- tors or as- sumptions</li> <li>Assumptions made regarding possible mining methods, but the assumptions made regarding mining methods, but the assumptions the region consider potential mining methods, but the assumption state regions when estimating Mineral Resources may not always be rigrous. Where this is the case, this should be reported with an explanation of the barbit of the moisting remoted with an explanation of the case, this should be reported with an explanation of the barb</li></ul>		<ul> <li>The assumptions made regarding recovery or by- products.</li> </ul>	<ul> <li>By-products are not reported but will be produced &amp; sold. Viability not dependent on by-products.</li> </ul>
In the case of block model interpolation, the block size in relation to the average sample spacing & the search employed.       Blocks 25m x 25m. Suits irregular drill spacing of 50 to 75m and fits the geological shapes. Search ellipse 250m along strike by 150m         Any assumptions behind modelling of selective mining units.       Minimum thickness of 1.25m, 1.5m & 2m to suit ore geometry & depth. Mine has achieved 1.25m         Assumptions about correlation between variables.       Nil         Description of how the geological interpretation was used to control the resource estimates.       Nil         Discussion of basis for using or not using grade cutting or capping.       Nethod 1 25mx25m blocks kept inside boundaries.         Process of validation, checking process used, comparison of model data to drill hole data, & use of reconciliation data if available.       Vestimet methods correspond reasonably. Holes compare well with twinned holes, pit samples & reasonably well with mine results.         Moisture       Whether the tranages are estimated on a dry basis or with natural moisture, & the method of determination of the moisture content.       Process of validation, the with moisture, & the method of determination of the moisture content.         Cut-off pa- rameters or acts or as- tors or as- sumptions       Assumptions made regarding possible mining methods, but we that a date day diff grade(s) or quality parameters applied.       Mining is simple quarrying - costs well known.         Screen performance results to date suggest yields of bauxite will range between 65% & 75%       Mining & screening are less than 10% of costs (logistics +90%) so exact estimations of yi		<ul> <li>Estimation of deleterious elements or other non- grade variables of economic significance</li> </ul>	<ul> <li>Bauxite has many grades, including reactive silica (Rx SiO<sub>2</sub>) which is the main deleterious element</li> </ul>
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search employed.       250m along strike by 150m         Any assumptions behind modelling of selective mining units.       Minimum thickness of 1.25m, 1.5m & 2m to suit ore geometry & depth. Mine has achieved 1.25m         Assumptions about correlation between variables.       Nil         Description of how the geological interpretation was used to control the resource estimates.       Method 1 25mx25m blocks kept inside boundaries.         Discussion of basis for using or not using grade cutting or capping.       Bauxite grades are major elements & normally distributed without outliers : . best left uncut.         Process of validation, checking process used, comparison of model data to drill hole data, & use of reconciliation data if available.       Bauxite grades are major elements & normally distributed without outliers : . best left uncut.         Moisture       Whether the tonnages are estimated on a dry basis or with natural moisture, & the method of determining on of the moisture content.       Dry density factor applied so tonnages and grades are on a dry basis. Moisture is measured gravimetrically by weighing wet and after drying         Cut-off parameters       Assumptions made regarding possible mining methods, or assonably mining dilution. It is always necessary as part of the process of determining methods, but the assumptions made regarding mining methods, be prometers when estimating Mineral Resources may not always be rigorous. Where this is the case, this shuld be reported with an explanation of the moisture cononic extraction to consider potential minin		size in relation to the average sample spacing & the	to 75m and fits the geological shapes. Search ellipse
<ul> <li>Any assumptions behind modelling of selective mining units.</li> <li>Assumptions about correlation between variables.</li> <li>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>Discussion of basis for using or not using grade cutting or capping.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>Discussion of model data to drill hole data, &amp; use of reconciliation data if available.</li> <li>Process of validation, checking process used, comparison of model data to drill hole data, &amp; use of reconciliation data if available.</li> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, &amp; the method of determination of the moisture content.</li> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, &amp; the method of determination of the moisture content.</li> <li>Cut-off pa-rameters applied.</li> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> <li>Mining fac-tors or as-minimg dimensions &amp; intemal (or external) mining methods, but the assumptions made regarding possible mining methods, but the assumptions made regarding mining methods, but the assumptions made regarding function.</li> <li>Mining &amp; screening are less than 10% of costs (logistics +90%) so exact estimations of yields are not as important as logistics and grades of products.</li> <li>All subgrades do yround and and the reported with an explanation of the waits do more there wantal genome the assend function of the moisting fore the regarding function of the moisting fore more than a mane envirtee mandel function of the mo</li></ul>		search employed.	250m along strike by 150m
<ul> <li>Assumptions about correlation between variables.</li> <li>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>Discussion of basis for using or not using grade cutting or capping.</li> <li>Process of validation, checking process used, comparison of model data to drill hole data, &amp; use of reconciliation data if available.</li> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, &amp; the method of determination of the moisture content.</li> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, &amp; the method of determination of the moisture content.</li> <li>Cut-off parameters applied.</li> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> <li>Mining factors or as- sumptions</li> <li>Assumptions</li> <li>Assumptions</li> <li>Misture</li> <li>Misture</li> <li>Misture</li> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, &amp; the method of determination of the moisture content.</li> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> <li>Mining factors or as- sumptions</li> <li>Mining factors or dasting methods, but the assumptions made regarding methods, but the assumptions made regarding mining methods, but the assumptions made regarding mining methods, but the assumptions made regarding funcarial mining methods, but the assumptions 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 active to mining methods, but the assumptions made regarding mining methods approtential mining methods, but the assumptions made regarding funcarial mining methods approtent with an explanation of the process of determination of th</li></ul>		<ul> <li>Any assumptions behind modelling of selective mining units</li> </ul>	<ul> <li>Minimum thickness of 1.25m, 1.5m &amp; 2m to suit ore</li> </ul>
<ul> <li>Method 1 25mx25m blocks kept inside boundaries.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>Discussion of model data to drill hole data, &amp; use of reconciliation data if available.</li> <li>Moisture</li> <li>Mothether the tonnages are estimated on a dry basis or with natural moisture, &amp; the method of determination of the moisture content.</li> <li>Cut-off parameters applied.</li> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> <li>Mining factors or assumptions</li> <li>Assumptions</li> <li>Assumptions</li> <li>Assumptions</li> <li>Assumptions</li> <li>Assumptions</li> <li>Assumptions made regarding possible mining methods, but the assumptions made regarding mining methods but the assumptions of the case, this should be reported with an explanation of the basis of the and planation of the case in the individuation of the moisture context.</li> <li>Mine &amp; site addition of the assumptions made regarding minin</li></ul>		Assumptions about correlation between variables	Nil     Nil
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nass of the mining assumptions made		case, this should be reported with an explanation of the basis of the mining assumptions made	dilution which is easily screened out.



Criteria	JORC Code explanation	Commentary
Metallurgical factors or as- sumptions	<ul> <li>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 &amp; 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.</li> </ul>	<ul> <li>Screen performance results to date suggest yields of bauxite will range between 60% &amp; 70%</li> <li>Mining &amp; screening are less than 10% of costs (logistics are +80%) so yield prediction is less important than logistic costs &amp; product grade predictions.</li> <li>Bulk tests confirmed that dry-screening at 2.5mm mesh size produces similar yield and grade results to laboratory wet screening at 0.26mm.</li> </ul>
Environmen- tal factors or assumptions	Assumptions made regarding possible waste & 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 & 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.	<ul> <li>All material extracted is either saleable or returned to exhausted pit areas. Bauxite is widely used because it is chemically benign.</li> <li>Soils over bauxite are invariably dry and thin but are easily reinstated immediately a pit is exhausted and reformed.</li> <li>Area selection criteria is to be free of socio-environmental constraints. ABx gets environmental clearances before any drilling.</li> <li>Land access agreements are in place for all near-term development areas.</li> </ul>
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 &amp; 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 &amp; differences between rock &amp; alteration zones within the deposit.</li> <li>Dire process periods for bulk deposity optimates used in the</li> </ul>	<ul> <li>Measured densities - dry in-situ by volumetric methods from 6 drillholes, cross-checked against surface samples</li> <li>Broken density &amp; stowage factors for transport, plus the angle of repose for stockpiling estimated too.</li> <li>Measured volumetrically by diamond blade sawing of precise channels, drying &amp; weighing.</li> <li>9 diamond drill cores measured and weighed dry corroborated pit channel sample estimates of 1.9 to 2.1 tonnes per cubic metre (high due to high Fe<sub>2</sub>O<sub>3</sub>)</li> </ul>
Classification .	<ul> <li>Decide any point of a function of the different materials.</li> <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 &amp; metal values, quality, quantity &amp; distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the denosit</li> </ul>	<ul> <li>Method 1: number of data points per block</li> <li>Method 2: nearness to next holes</li> <li>Resources will not be classified as measured until mining experience is gained sufficient to correlate resource predictions with actual production outcomes. Data variability is similarly high in holes and in mine openings.</li> <li>Estimation results appropriately reflects Competent Persons' views of denosits</li> </ul>
Audits or re- views	Competent Person's view of the deposit.     Results of any audits or reviews of Mineral     Resource estimates.	<ul> <li>None. Mine reconciliations are the key reviews/audits</li> </ul>
Discussion of relative accu- racy/ confi- dence	Where appropriate a statement of the relative accuracy & 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 & confidence of the estimate.	<ul> <li>All Competent Persons do manual, volume-based checks of estimates to be satisfied with results from Method 1 (geostatistical block modelling) &amp; Method 2 (voronoi polygon estimation).</li> <li>Competent Persons have signed approvals for publicly released resource reports.</li> <li>No objections to date &amp; comments are welcomed</li> </ul>
-	<ul> <li>Statement should specify whether it relates to global or local estimates, &amp;, if local, state the relevant tonnages, which should be relevant to technical &amp; economic evaluation. Documentation should include assumptions made &amp; the procedures used.</li> <li>Statements of relative accuracy &amp; confidence of the</li> </ul>	<ul> <li>Each deposit is estimated individually.</li> <li>Each 25m x 25m block in Method 1 (geostatistical block modelling) is individually estimated locally</li> <li>Is always being done, in accordance with industry.</li> </ul>
	estimate should be compared with production data, where available.	practice & common sense triple-checking.