

Rare Earth Element Assays Confirm Source Rock and Expand Target Area

- A new sample from the DL130 bauxite project area in northern Tasmania has confirmed strong enrichment of the super-magnet rare earth element (REE) neodymium (Nd)
- The new sample taken from 9 to 10 metres depth in hole DL315 returned the highest Nd grade to date and is located 500 metres east of the next most Nd-enriched sample (see Figure 1)
- This is interpreted to be an ideal “**Source Rock**” that is deeply corroded and enriched in Nd, similar to the source rock results reported from DL130 tenement in February (ASX 09/02/21)
- This strata is described as a “**Source Rock**” because of the strong corrosion of the rock which would have allowed Nd to be released into the ancient groundwaters
- Elevated Nd values in source rock has been found over an area of 500 x 500 metres so far and is open in all directions
- New exploration programs are investigating a much wider area and test more structures

Australian Bauxite Limited (ASX:ABX) (**ABx** or **Company**) is pleased to report on confirmatory results from exploration at the DL130 bauxite project in northern Tasmania (see Figure 2) for rare earth elements (**REE**) that occur within the ABx bauxite geology and have the following features:

- **The confirmatory sample has returned the highest level of REE enrichment discovered to date**
- **In northern Tasmania, the most enriched element is Neodymium which is a critical strategic metal used in super-magnets used in electric vehicles, wind turbines, smart phones and military electronics**

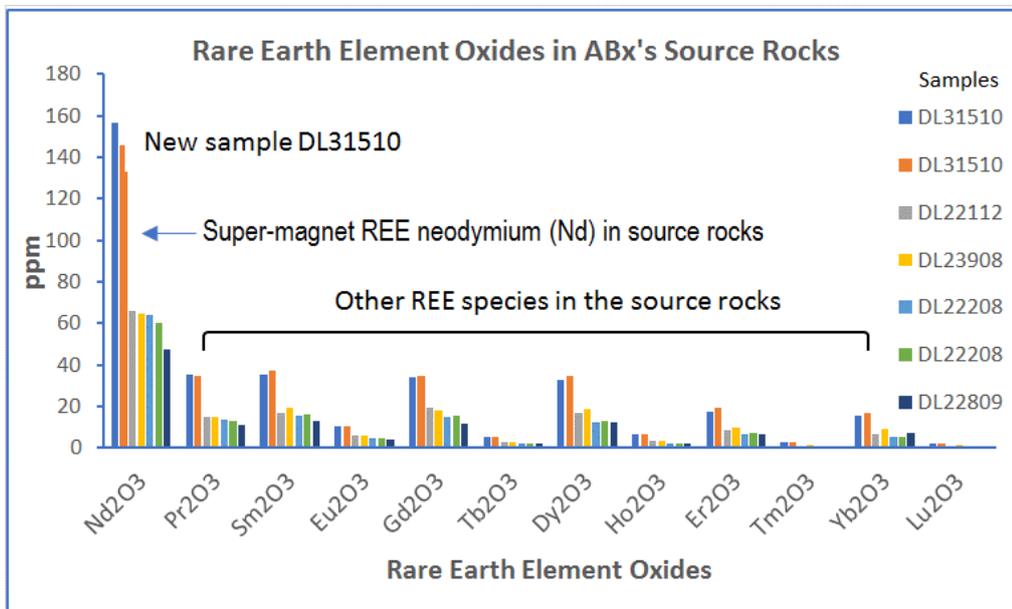


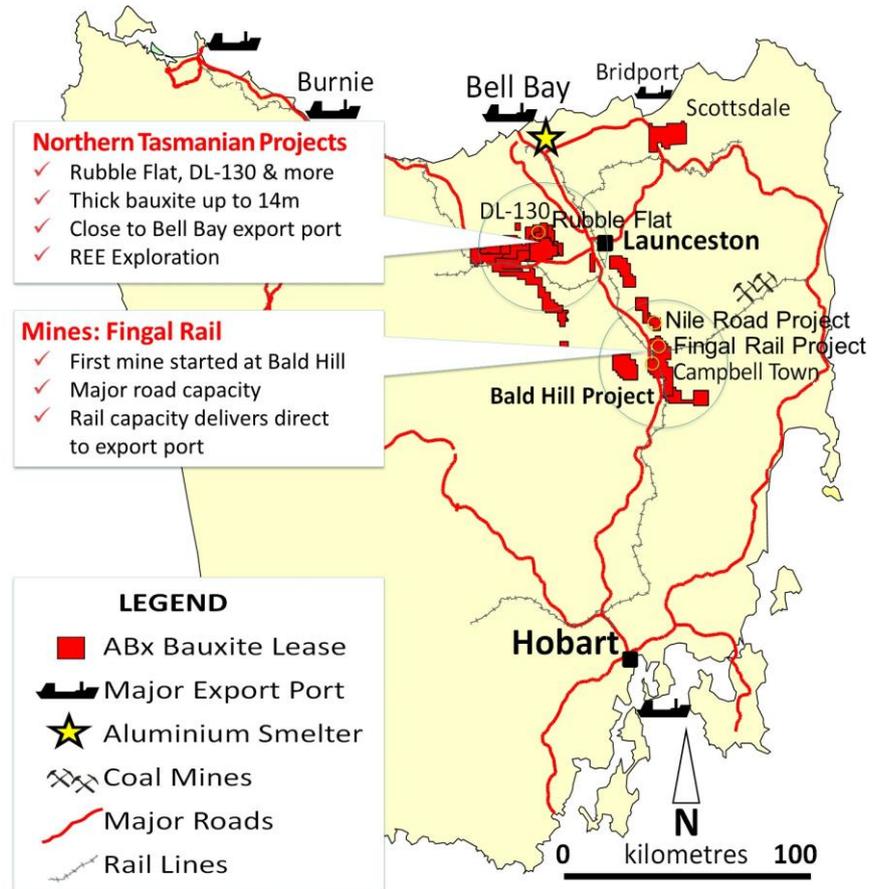
Figure 1
Rare Earth Elements in ABx's source rock at DL130 Project, Northern Tasmania.
 The strong enrichment of neodymium (Nd2O3) is clearly evident compared to other REE.
 NOTE: The latest sample DL31510 is the most enriched in neodymium discovered to date

- **Clays in the highly corroded “Source Rocks” have been found to contain soluble REE**
- **The mineralisation appears likely to be Ionic Adsorption Clay deposits (“IAC”) which have been a major source of low-cost REE production in southern China**
- **Exploration is focussing on extensions to the 500 x 500 metre zone of source rocks that has been confirmed by 7 samples to date**

Figure 2

Locations in Tasmania.

ABx's Rare Earth Element exploration is focussed across the northern Tasmanian project areas of DL130, Rubble Flat, Westbury and Rosebourne



Hole	Depth		Nd2O3 ppm	Pr2O3 ppm	Tb2O3 ppm	Dy2O3 ppm
	from (m)	to (m)				
DL315	9	10	156.30	35.58	5.46	32.82
DL315 repeat	9	10	145.80	34.52	5.55	34.55
DL221	11	12	66.13	14.75	2.87	16.81
DL239	7	08	64.50	14.69	3.05	18.71
DL222	7	08	64.03	13.46	2.12	12.28
DL222 repeat	7	08	60.42	12.87	2.27	13.31
DL228	8	09	47.59	11.32	2.04	12.62
DL303	8	09	43.39	9.76	1.51	9.41
DL303 repeat	8	09	41.76	10.28	1.60	9.74
DL238	7	08	35.34	7.64	1.34	8.75
DL238 repeat	7	08	33.94	8.17	1.44	9.24
DL228	6	07	30.09	7.28	1.37	8.47
DL228 repeat	6	07	29.98	7.16	1.29	8.08

Table 1

Summary of assays of the super-magnet related rare earth elements (REE) from the DL130 bauxite project area in northern Tasmania:

Neodymium (Nd2O3),
Praseodymium (Pr2O3),
Terbium (Tb2O3) and
Dysprosium (Dy2O3)

Complete REE assays are shown in Table 2 below

ABx's Exploration Strategy is as follows:

1. To explore for REE that are in strongest demand. ABx is exploring for Neodymium because its price is growing strongly (see Figure 3) and it is the main metal used for super-magnets that are critical strategic components in electric vehicles, wind turbines, smart phones and military electronics
2. To focus on a deposit type that can be quickly developed with a low capital cost and has a low operating cost. So, ABx explores for the Ionic Adsorption Clay (IAC) style of mineralisation which is analogous with the IAC deposits that have produced REE in southern China using simple leaching.
3. To explore in areas where an IAC leaching project will not interfere with alternative land use
4. To always comply with ABx's paramount policy to leave land better than we find it and only operate where welcome



Figure 3
Recent prices for Neodymium REE

ABx’s Exploration Tactics are as follows:

1. To assess the regional extent of the **source rock** that is rich in Neodymium and highly corroded and leached so that it has released REE into ancient groundwaters (this announcement)
2. Discovery of **transport pathways** that have transported the neodymium, and
3. To identify and drill-test the **traps** where fairly large REE deposits will exist.

Geological setting: At the end of the ice age, northern Tasmania was wet lowlands at the northern edge of a melting glacial ice sheet (the one that formed Cradle Mountain). This generated swamplands that deeply rotted the source rocks, which released REE into the groundwaters. This is how Southern China’s REE deposits formed and ABx has found similar features in its bauxite geology.

Therefore, any REE orebody discovered by ABx in northern Tasmania will probably be water-soluble (called Ionic Adsorption Clay or “IAC-REE”) which can be rapidly developed as a low-cost, in-situ leaching project as per the diagram below.

Unlike southern China, Tasmania does not have rice paddies on top of these deposits and most exploration targets lie in hardwood plantations where the ground is fairly infertile due to bauxite formation.

Socio-environmental setting: In-situ leaching is widely used in the USA and is currently being conducted for uranium extraction in South Australia at Beverley without problems since 2001. ABx’s REE leaching would be much more benign, but as always, ABx would have to earn its social licence to operate case-by-case, as ABx has done successfully since 2013.

ABx has worked hard on its rehabilitation technology and is always respectful and cooperative with landholders and all stakeholders. Should an orebody be found, ABx is well positioned to prove that ABx could carry-out in-situ leaching operations in a safe manner. ABx feels its REE exploration is well-focused.

ABx Exploration Technology for IAC-REE Orebodies

Water-soluble Ionic Adsorption Clay Rare Earth Element (IAC-REE) Targets

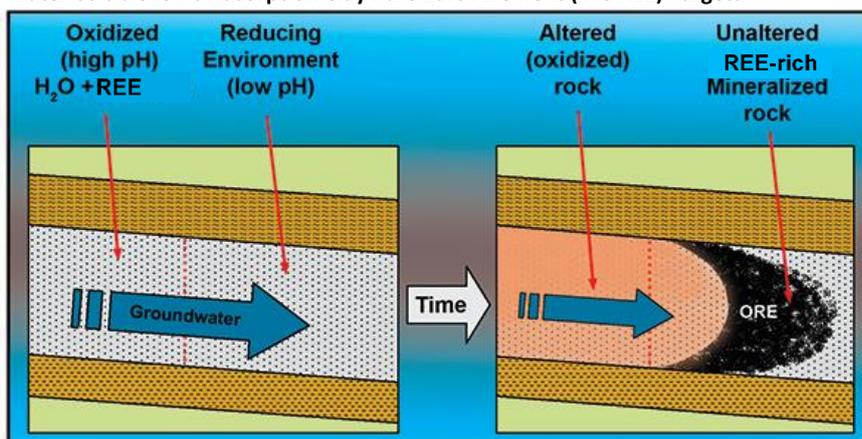


Figure 4
Possible transport pathways and trap mechanism for ABx’s REE exploration targets
ABx has identified several pathways in northern Tasmania that will be tested in coming months

In-Situ Leaching of IAC-REE Deposits

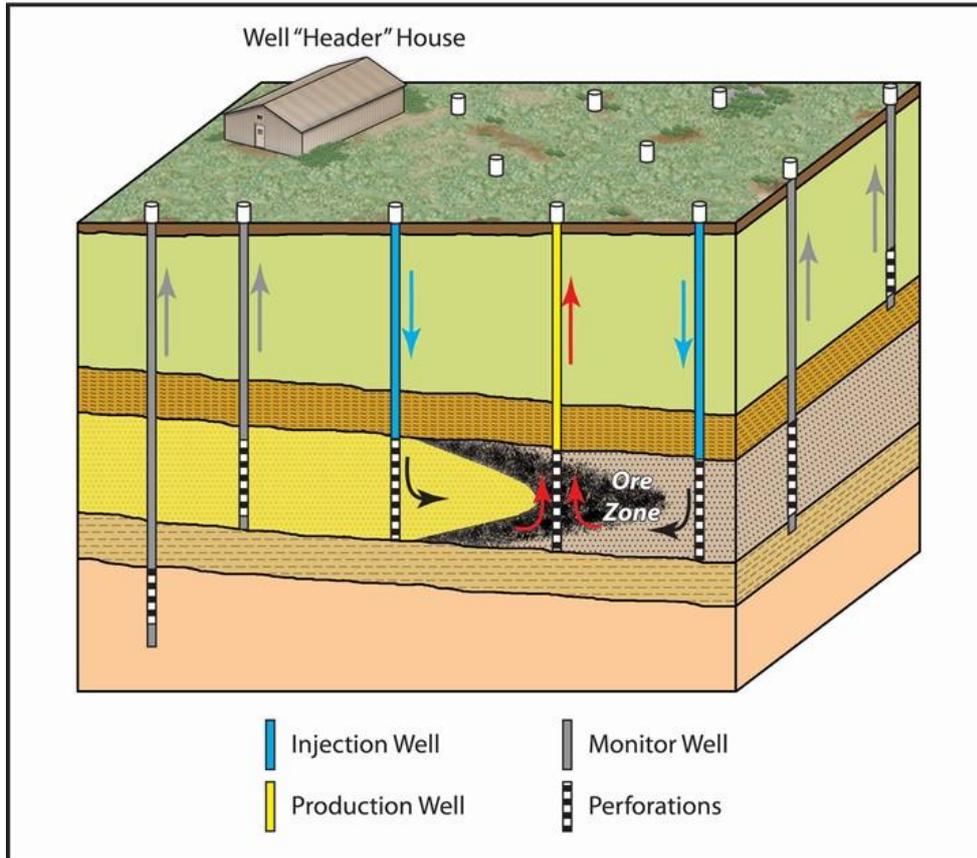


Figure 5

Summary of an in-situ leaching project

This production technology can only be conducted in suitable areas and after rigorous testing of the environmental technology

This announcement is authorised by the Board of Australian Bauxite Limited.

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Table 2: Rare Earth Element Results
Assays by NATA-registered ALS Commercial Laboratories, Brisbane and LabWest, Perth

Hole	Depth		Lab &	Nd2O3	Pr2O3	Sm2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Y2O3	La2O3	Ce2O3	Total
	from (m)	to (m)	Method	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL315	9	10	LabWest - AF02	156.30	35.58	35.13	10.63	33.89	5.46	32.82	6.33	17.50	2.65	15.49	2.47	153.7	116.8	175.7	800
DL315	9	10	LabWest - MMA04	145.80	34.52	37.45	10.16	34.58	5.55	34.55	6.54	19.55	2.91	16.74	2.48	157.5	110.1	171.0	789
DL221	11	12	ALS - ME-MS81	66.13	14.75	17.10	5.97	19.25	2.87	16.81	3.17	8.42	1.14	6.57	0.93	95.0	49.1	116.5	424
DL239	7	08	ALS - ME-MS81	64.50	14.69	19.19	6.14	18.33	3.05	18.71	3.51	9.74	1.50	9.45	1.31	77.5	45.2	301.0	594
DL222	7	08	LabWest - AF02	64.03	13.46	15.77	4.82	14.64	2.12	12.28	2.22	6.54	0.93	5.47	0.80	61.0	36.0	152.3	392
DL222	7	08	LabWest - MMA04	60.42	12.87	16.35	4.71	15.33	2.27	13.31	2.47	7.33	0.98	5.50	0.81	64.8	35.3	148.8	391
DL228	8	09	ALS - ME-MS81	47.59	11.32	12.81	4.19	11.51	2.04	12.62	2.35	6.82	1.05	7.32	1.02	44.3	35.7	231.9	433
DL303	8	09	LabWest - AF02	43.39	9.76	9.51	3.02	9.31	1.51	9.41	1.68	4.77	0.75	5.01	0.78	36.8	29.2	298.7	464
DL303	8	09	LabWest - MMA04	41.76	10.28	10.77	2.94	9.67	1.60	9.74	1.86	5.75	0.89	5.57	0.80	39.1	30.0	223.7	394
DL238	7	08	LabWest - AF02	35.34	7.64	10.09	2.95	8.41	1.34	8.75	1.64	4.67	0.75	5.69	0.77	31.7	21.9	342.0	484
DL238	7	08	LabWest - MMA04	33.94	8.17	9.97	2.79	8.14	1.44	9.24	1.65	5.41	0.87	5.55	0.74	33.3	21.5	253.0	396
DL228	6	07	LabWest - MMA04	30.09	7.28	8.28	2.23	7.46	1.37	8.47	1.58	5.29	0.85	5.19	0.80	37.0	22.9	297.5	436
DL228	6	07	LabWest - AF02	29.98	7.16	8.00	2.48	7.54	1.29	8.08	1.59	4.72	0.70	4.90	0.74	34.3	23.0	402.9	537

Qualifying statements

General regarding exploration data and reporting:

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.

Ian Levy has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Ian Levy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mainland

The information relating to Mineral Resources on the Mainland was prepared and first disclosed under the JORC Code 2004. It has not been updated since to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported.

Mr Rebek and Mr Levy have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which they are undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of exploration Results, Mineral Resources and Ore Reserves. Mr Rebek and Mr Levy have consented in writing to the inclusion in this report of the Exploration Information in the form and context in which it appears.

Tasmania

The information relating to Exploration Information and Mineral Resources in Tasmania has been prepared or updated under the JORC Code 2012. Mr Rebek and Mr Levy have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which they are undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

Mr Rebek and Mr Levy have consented in writing to the inclusion in this report of the Exploration Information in the form and context in which it appears.

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 forward-looking statements will be achieved.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <i>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.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>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.</i> 	<ul style="list-style-type: none"> Drill holes samples to 25 metres depth
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <i>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).</i> 	<ul style="list-style-type: none"> Reverse circulation rotary percussion
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <i>Method of recording & assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery & ensure representative nature of the samples.</i> <i>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.</i> 	<ul style="list-style-type: none"> Weight tests indicated reliable sample recovery
<i>Logging</i>	<ul style="list-style-type: none"> <i>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.</i> <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> Geologically logged in detail by senior professionals. Every sample photographed, with photos and logs and assays entered into ABx’s ABacus database.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>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.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> Chips are subsampled using bauxite shovel method in accordance with SO standards

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> All assaying done at NATA-registered commercial laboratory of ALS Brisbane Australia. Round robin assays with 4 other major laboratories confirmed accuracy and precision meets industry standards.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> All assaying done at NATA-registered commercial laboratory of ALS Brisbane Australia. Round robin assays with 4 other major laboratories confirmed accuracy and precision meets industry standards.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> GPS hole locations have been tested for accuracy on many prospects, all satisfactorily.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> Drilling typically at 50 to 75 metre spacing on mineralised prospects
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> Vertical holes through flat-dipping bauxite is as good as it gets
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Samples collected and assembled onto pallets every day
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> Several audits confirmed reliability

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • Satisfactory to excellent. All tenements are unencumbered....
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • 3 industry majors and two customers have approved exploration methods and data collection, interpretation and reporting
<i>Geology</i>	<ul style="list-style-type: none"> • <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> • Bauxite deposit on Lower Tertiary basalts
<i>Drill hole Information</i>	<ul style="list-style-type: none"> • <i>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:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> • <i>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.</i> 	<ul style="list-style-type: none"> • GPS location. • Airborne Radar RL topography • All holes are short straight vertical holes
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> • <i>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.</i> • <i>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.</i> • <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> • No data aggregation used.

Criteria	JORC Code explanation	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <i>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').</i> 	<ul style="list-style-type: none"> • Mineralisation typically 3 to 6 metres thick and Drillholes are sampled at 1 metre intervals
<i>Diagrams</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • N.A.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • All new results are reported in this report
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> • <i>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.</i> 	<ul style="list-style-type: none"> • N.A.
<i>Further work</i>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> • To be planned