

ASX announcement

24 August 2017



POSITIVE DIAMOND DRILLING ASSAY RESULTS AT LONGONJO MAGNET METALS PROJECT ANGOLA

HIGHLIGHTS:

- Diamond drilling at the Longonjo Magnet Metal Project in Angola has successfully validated the previous air-core drilling results.
- Broad mineralised intercepts from surface include: -
 - 20m @ 6.47% TREO from surface.
 - 38m @ 5.04% TREO from surface.
 - 16m @ 7.04% TREO from surface.
 - 16m @ 6.04% TREO from surface.
- 2m composite assays grading up to 15.08% TREO, with high value magnet metals Nd/Pr (neodymium and praseodymium) accounting for 20.9% of the TREO content.
- All drill holes have returned significant rare earth mineralisation from surface to end of hole.
- Mineralisation remains open in all directions and at depth.
- AEMC Foster Wheeler preparing JORC Mineral Resource Estimate and Scoping Study.

Angolan focussed exploration and development company Rift Valley Resources Limited (ASX: RVY) ("the Company" or "Rift Valley") is pleased to announce highly encouraging assay results from its recently completed diamond drilling programme at its 70% owned Longonjo Magnet Metal Project, with the program delivering extensive high-grade Total Rare Earth Oxide ("TREO") results.

Commenting on the results, Rift Valley Chairman, Mr Stephen Dobson, said, *"The highly successful drilling campaign has significantly increased the potential of the Longonjo Magnet Metals Project, it has also confirmed the presence of mineralisation at depth. Significantly almost 21% of the mineralisation is represented by the in-demand magnet metals Neodymium and Praseodymium"*.

As previously announced (refer ASX announcement dated 6 June 2017), this diamond drilling which commenced in May 2017 and concluded in July 2017 twinned previous air core drill holes with large diameter (PQ-116mm) diamond drill core. Triple tube barrels were used to ensure maximum core recovery.

Diamond core was obtained to provide the sample integrity necessary for a JORC compliant mineral resource estimation (MRE) that is anticipated to be completed during the current quarter, as well as the

material needed for detailed metallurgical test work, both of which will be incorporated into the concomitant independent scoping study to be carried out by AMEC Foster Wheeler.

The results of this program not only provided sufficient data to meet the initial requirements of the Company and its advisors, but identified additional high grade TREO mineralisation and expanded the known mineralisation zones, with all drill holes returning significant rare earth mineralisation from surface to end of hole and the mineralisation remaining open in all directions and at depth.

A total of 10 holes were drilled for an advance of 650 metres, of which 7 holes were drilled to a depth of 50m with 3 holes to 100m. These exceeded the depth of their air core twins, which were drilled to blade refusal (typically 30m) and evidenced the continuation of rare earth mineralisation into the fresh, bedrock material at Longonjo.

ALL DRILL HOLE RESULTS

➤ LJD001 - 50m @ 3.65 % INCLUDING 20m @ 6.47% FROM SURFACE
➤ LJD002 - 100m @ 3.30% INCLUDING 38m @ 5.04% FROM SURFACE
➤ LJD003 - 50m @ 3.17% INCLUDING 20m @ 4.98% FROM SURFACE
➤ LJD004 -100m @ 1.85% INCLUDING 10m @ 4.64% FROM SURFACE
➤ LJD005 - 50m @ 2.55% INCLUDING 10m @ 5.69% FROM SURFACE
➤ LJD006 - 50m @ 1.30% INCLUDING 10m @ 2.04% FROM SURFACE
➤ LJD007 - 51m @ 3.24% INCLUDING 16m @ 7.04% FROM SURFACE
➤ LJD008 - 51m @ 3.45% INCLUDING 16m @ 6.04% FROM SURFACE
➤ LJD009 - 50m @ 1.59% INCLUDING 10m @ 4.37% FROM SURFACE
➤ LJD010 - 100m @ 2.19% INCULDING 12m @ 4.28% FROM SURFACE

LONGONJO PROJECT DIAMOND DRILLING SIGNIFICANT INTERSECTIONS							
Hole ID	EASTING	NORTHING	RL	Depth From (m)	Depth To (m)	Width (m)	TREO (%)
LJD001	524226	8570700	1563	0	50	50	3.65
LJD002	524073	8570977	1577	0	100.4	100.4	3.30
LJD003	524260	8571016	1585	0	50.8	50.8	3.17
LJD004	524324	8570888	1566	0	101	101	1.85
LJD005	524362	8570820	1566	0	50.5	50.5	2.55
LJD006	524172	8570804	1568	0	50.1	50.1	1.30
LJD007	524018	8570898	1570	0	51	51	3.24
LJD008	524120	8571105	1601	0	51	51	3.45
LJD009	524091	8571199	1624	0	50.75	50.75	1.59
LJD010	524867	8571169	1589	0	100	100	2.19

TABLE 1 NOTE:

*Results are derived from 2 metre composite samples
Intersections calculated using no lower cut, no upper cut and thus no internal dilution.*

TREO% comprises of the following:

CeO ₂	Cerium(IV) oxide
Dy ₂ O ₃	Dysprosium oxide
Er ₂ O ₃	Erbium Oxide
Eu ₂ O ₃	Europium Oxide
Gd ₂ O ₃	Gadolinium Oxide
Ho ₂ O ₃	Holmium Oxide
La ₂ O ₃	Lanthanum Oxide
Lu ₂ O ₃	Lutetium Oxide
Nd ₂ O ₃	Neodymium Oxide
Pr ₆ O ₁₁	Praseodymium Oxide
Sm ₂ O ₃	Samarium Oxide
Tb ₄ O ₇	Terbium Oxide
Tm ₂ O ₃	Thulium Oxide
Y ₂ O ₃	Yttrium Oxide
Yb ₂ O ₃	Ytterbium Oxide



Hole LJD002 – CORE 36.25m- 39.25m grading 15.08% TREO

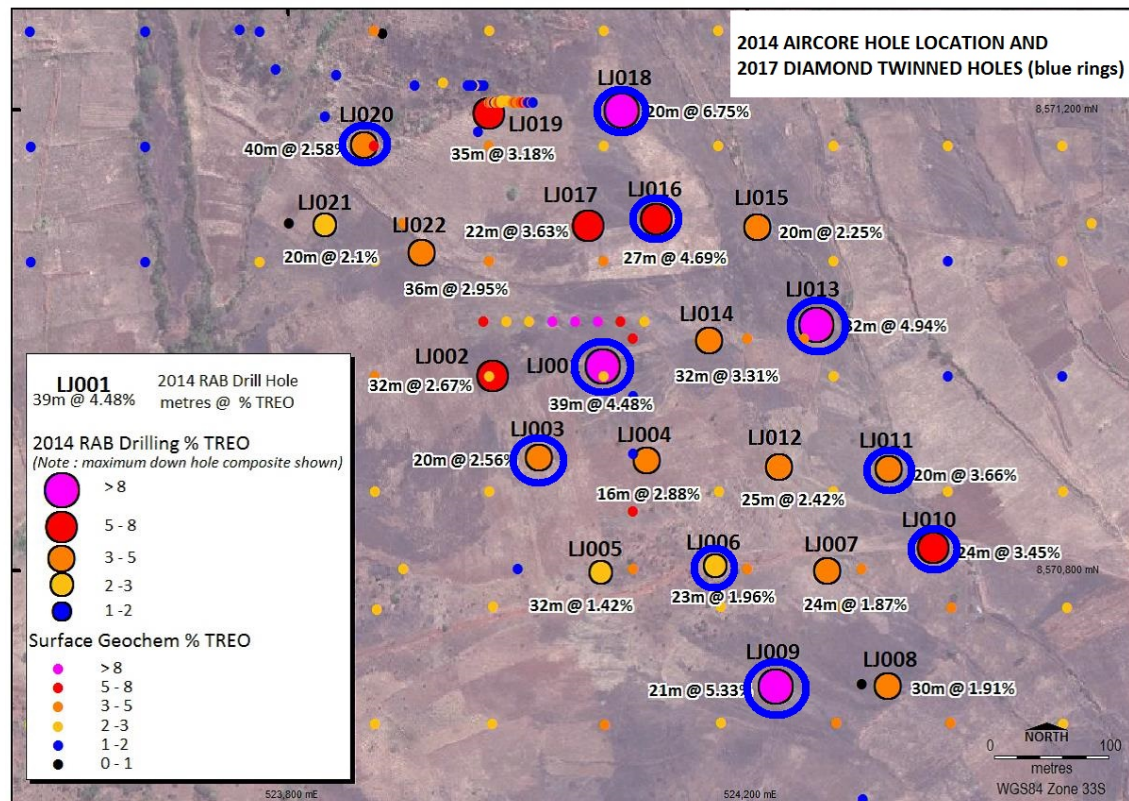


Figure 1 – Diamond Drill Hole Locations (blue ringed) with Respect to Previous Air Core Holes



Figure 2 – Diamond Drill Rig on site at Longonjo, June 2017



Figure 3: location of Ozango Project containing Longonjo REE prospect

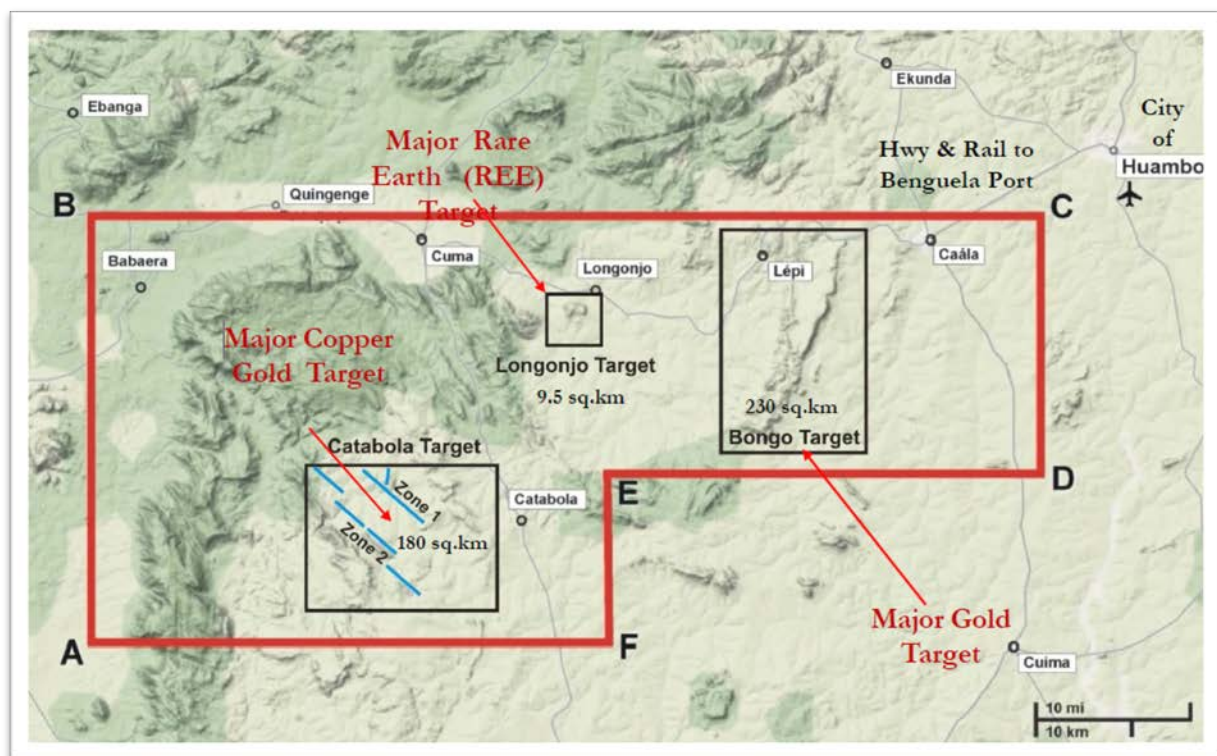
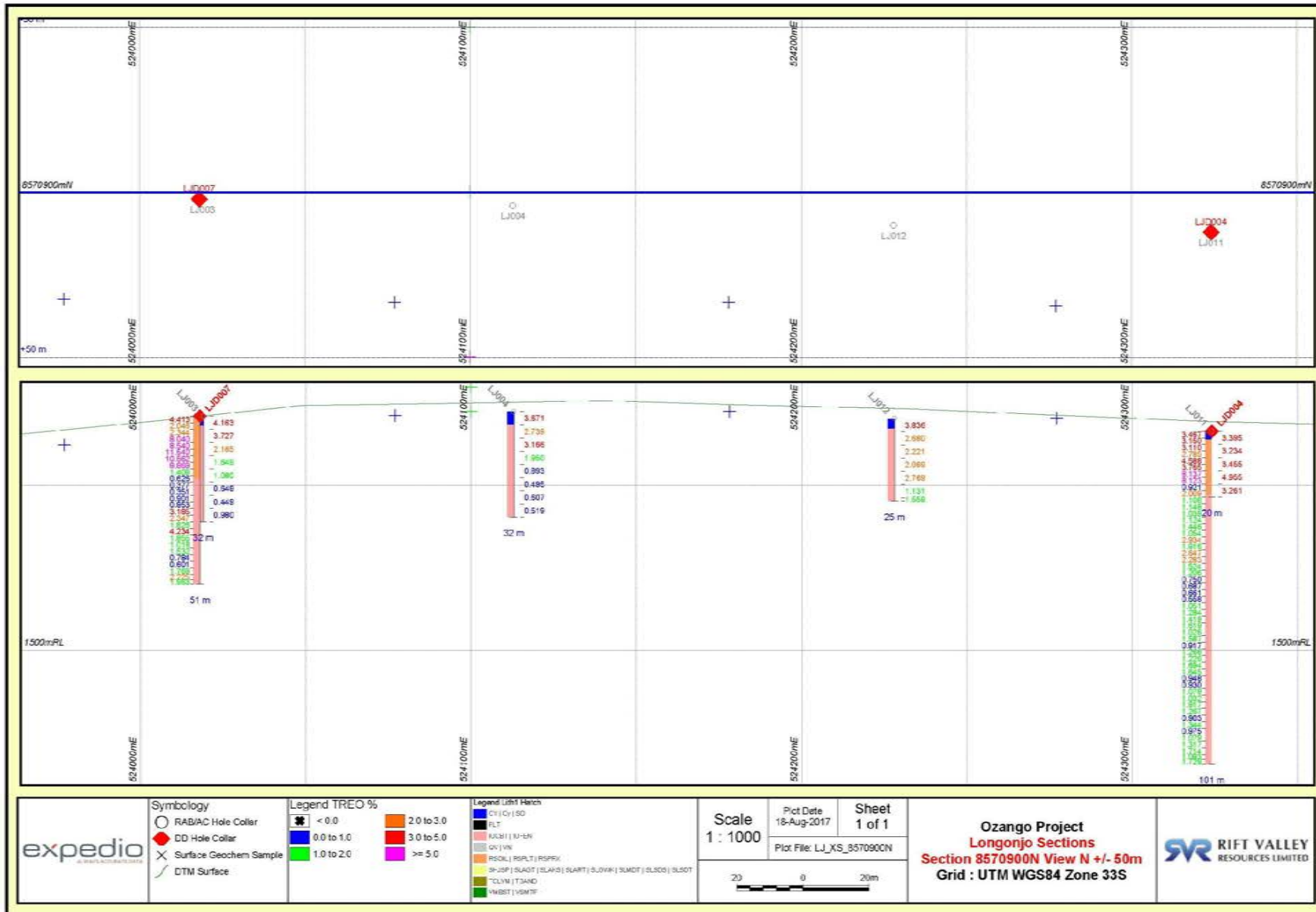


Figure 4: Ozango project showing Longonjo REE Project and other major targets



COMPETENT PERSON STATEMENT

We advise in accordance with Australian Stock Exchange Limited Listing Rules 5(6) that the exploration results contained within this report is based on information compiled by Mr. Greg Cunnold who is a member of the Australian Institute of Mining and Metallurgy. Mr Cunnold is a director of Rift Valley Resources Ltd and has consented in writing to the inclusion in this ASX Release of matter based on the information so compiled by him in the form and context in which it appears. Mr Cunnold has sufficient experience relevant to the style of mineralisation and type of deposit under consideration to be qualified as a Competent Person as defined by the 2012 Edition of the “Australian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves”.

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About the Longonjo Magnet Metal Project

The Longonjo prospect is located within the Ozango Project area 50km west of the regional city of Huambo. It is located proximal to good infrastructure including roads, towns and recently recommissioned railway infrastructure which links to the deep water Atlantic port of Lobito. The geology is typical of REE mines and prospects globally including Lynas Corp’s Mt Weld deposit in Western Australia, Peak Resources’ Ngualla deposit in Tanzania and similar to Arfura’s Nolans Bore Project.

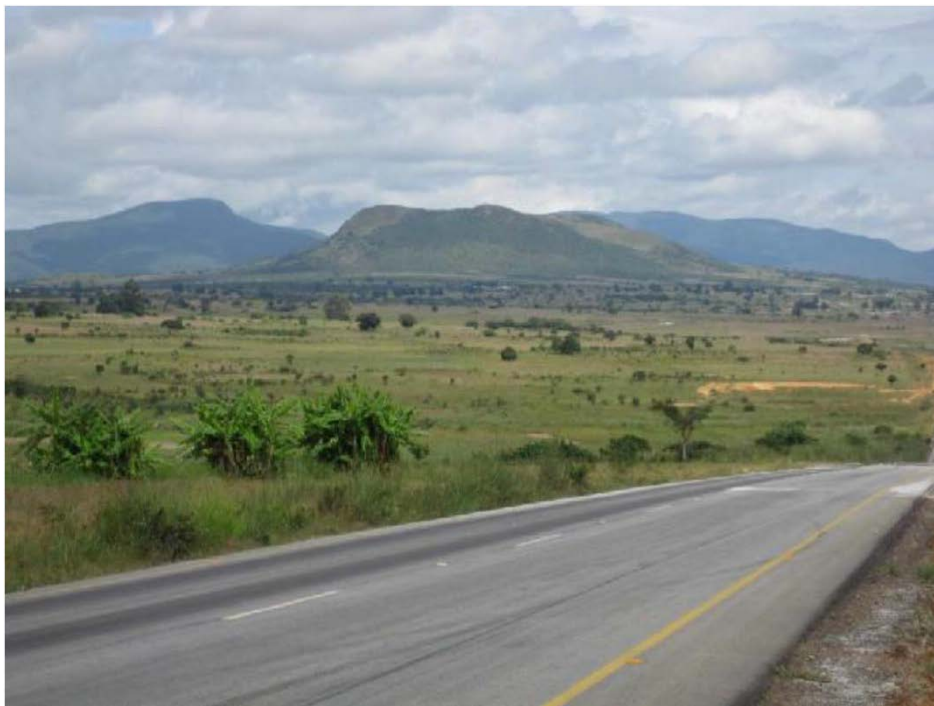


Figure 1 Carbonatite Vent – National Highway to Port (319km)

Metallurgical Drilling and Trenching

A soil geochemical sampling program undertaken at Longonjo over an area of 6km² and defined a large robust 3.5km long and 1.7km wide +0.5% REO geochemical anomaly which remains open to the west. A follow up trenching and pitting program carried out to test the bedrock within the soil anomaly returned highly encouraging results of up to 18.9% TREO from the pit bedrock samples.

First pass exploratory drilling conducted at the Company's Longonjo prospect in 2014 (see ASX announcement "*Initial Metallurgical Results from Longonjo Prospect – 7th May 2014*") tested the centre of the geochemical anomaly and returned high grade rare earth assays from every hole. From a total of 168 composite samples generated during the campaign, the highest grade returned was 11.32%, the lowest 0.45%, with an average of 2.96% TREO over all the samples.

The distribution of the high value neodymium and praseodymium rare earths in the mineralization was found to be substantial, accounting for more than 75% of the in-situ value as shown graphically in Figure 2.

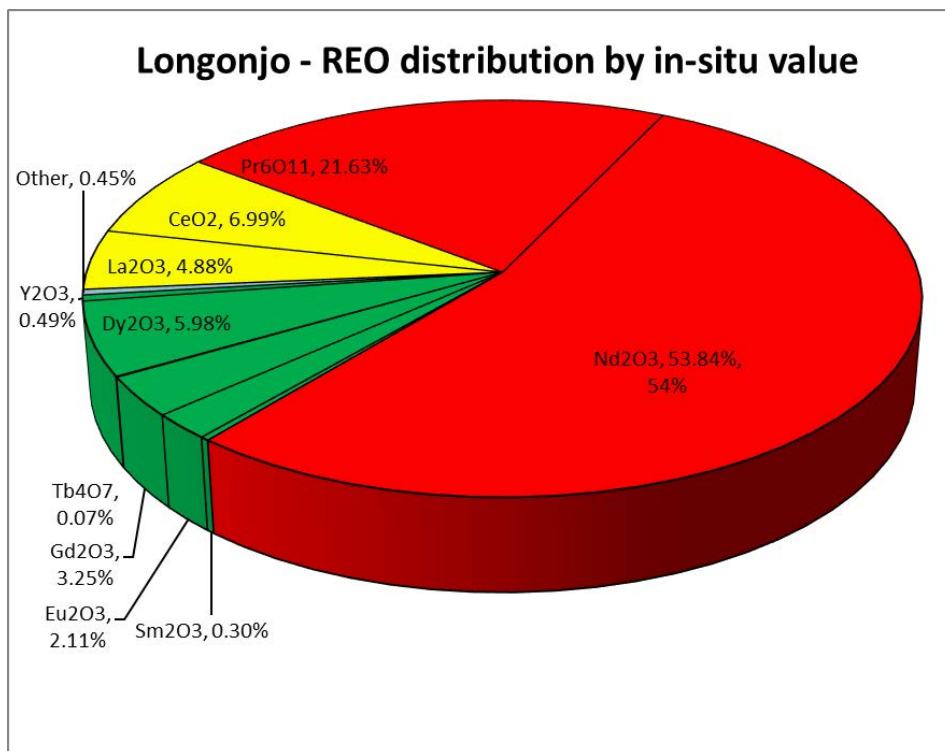


Figure 2 – In-Situ Value Distribution

(Source: Metals Pages – 16th November 2016)

Neodymium and Praseodymium metals are essential for the production of high strength permanent magnets. They are used in wind turbines, MRI machines, electric motors, drones, mobile phones, computers and many more technology and industry applications.

APPENDIX 1 – JORC TABLE 1

The following Table and Sections are provided to ensure compliance with the JORC Code (2012) edition requirements for the reporting of exploration results and Mineral Resources.

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</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 (e.g. ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> 2m composite samples taken from quartered diamond (PQ) core. Core quartered with a diamond saw in competent material and a knife in the less competent intervals. Standards & replicate assays taken by the laboratory. Diamond core was geologically logged over 1m intervals and sampled over 2m composite lengths from the surface. Depending on the hole depth, the maximum interval was 2, and minimum was 1m. Samples assayed for a suite of REE minerals as well 49 other elements. Diamond drilling was used to obtain continuous core from which 2m composite samples from which 3kg was pulverised to produce a 30g charge for fusion and ICP-MS analysis.
Drilling techniques	<ul style="list-style-type: none"> <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type,</i> 	<ul style="list-style-type: none"> Diamond drilling with PQ (116mm) core and triple tube barrels.

	<i>whether core is oriented and if so, by what method, etc).</i>	
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and 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"> • Diamond core recovery and meterage was assessed by comparing drill cutting volumes (sample bags) for individual meters. Recoveries were recorded. Routine check for correct sample depths are undertaken every rod (3m). • Core recoveries were visually checked for recovery, measured and recorded. • Due to the good drilling conditions (dry, firm material) the geologist believes the samples are homogenous and representative.
<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"> • Core logging was completed on one metre intervals on sitre by the geologist. The log was made to Ocris logging software in detail. RAB drilling does not, however, support resource estimations. • Logging was qualitative in nature • 100% of all meterages were geologically logged.
<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"> • Core samples were routinely quartered using a diamond saw in the competent material and a knife in the less competent intervals. • The sample preparation followed industry best practice. Sample were oven dried followed by pulverization of the entire sample in an LM5 or equivalent pulverizing mill to a grind size of 85% passing 75 micron. • Standards and blanks routinely (1 in 20) inserted. QC involves the review of laboratory supplied certified reference material, in house controls, blanks, splits and duplicates. These QC results are reported by the laboratory with final assay results. • No field duplicates were taken as it was core. It is envisaged that sample splits and pulp duplicates will suffice • The sample sizes are considered more than adequate to ensure that there are no particle size effects.

<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>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.</i> • <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> • The fusion digest is a complete digest and is the best available for the ICP-MS finish. Checks against a 4 acid (hydrofluoric, nitric, perchloric and hydrochloric acids) will be carried out on the pulps as a check. • Laboratory No geophysical or portable analysis tools were used to determine assay values stored in the database. Handheld XRF machine was only used as a guide while drilling and readings have not been included in review of the data. Assay data only is used. • QC results (blanks, duplicates, standards) were in line with commercial procedures, reproducibility and accuracy.
<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • Work was supervised by the Technical Director experienced in metals assaying. QC data reports confirm the sample quality and methodology. • The diamond drilling twinned previous air core drilling as reported. • Data storage as OCRIS files on company PC in Perth office and backed up offsite. • No adjustments to the assay data have been made.
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> • <i>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.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • All drill collar locations were surveyed using a hand held GPS, accurate to within 3-5m. Holes were drilled on an approximate 100m x 100m grid. The area was The grid system used is WGS84 Zone 338. All reported coordinates are referenced to this grid. The topography was undulating. • Topography was flat to undulating, small differences in elevation between drill holes will have little effect on mineralisation widths on initial interpretation.
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>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</i> 	<ul style="list-style-type: none"> • A nominal 100m x 100m drill pattern to an average depth of 50m • Yes. A new resource is being calculated. No Previous resource calculation has been published as the air core drilling would not qualify for a JORC compliant estimate.

	<ul style="list-style-type: none"> <i>classifications applied.</i> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> Yes, as detailed previously. 2m composites of diamond drill core have been reported. Previous air core drilling intersections quoted pertain to 4m composites.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>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.</i> 	<ul style="list-style-type: none"> No, drilling vertical holes is routine in this style of mineralisation. Unbiased sample was achieved. The deposit type is well known. The mineralisation is demonstrably disseminated throughout the host rock. There is no mineralised structure introducing a sample bias.
<i>Sample security</i>	<ul style="list-style-type: none"> <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> Sample security is managed by the Company. After preparation in the field samples are packed into polyweave bags and dispatched to the laboratory. All bags were transported by the Company directly to the freight forwarders. The assay laboratory audits the samples on arrival and reports any discrepancies back to the Company. No such discrepancies occurred.
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> Sampling techniques and data were both audited by AMEC Foster Wheeler as part of the due diligence for the resources estimate and concomitant scoping study. All aspects were passed.

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"> Prospecting License 013/03/09/T.P/ANG-MGM/2015 The tenements are in good standing and no known impediments exist.
<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"> Previous workers in the area include Black Fire Minerals and Cityview Corporation LTD to NI43-101 standards.
<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"> Cretaceous, carbonatite hosted, disseminated rare earth and niobium.

<i>Drill hole Information</i>	<ul style="list-style-type: none"> • A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> ○ easting and northing of the drill hole collar ○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> • Table in release • Table 1 in release • Table 1 in release • Vertical • From surface to end of hole • No information is excluded
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> • In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> • No weighting or averaging calculations were made, assays reported and compiled on the “first assay received” basis. No cuts applied. • N/A • TREO's were calculated from raw element assay data. The molecular weight of the element and the accompanying oxygen in the elements oxide form were calculated.
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> • These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect 	<ul style="list-style-type: none"> • Intersect Length represents true widths • N/A • N/A

	(e.g. 'down hole length, true width not known').	
<i>Diagrams</i>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Map included
<i>Balanced reporting</i>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Hole reported in its entirety
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • See details from previous ASX releases dealing with Longonjo work activities and programmes; these can be accessed via the internet.
<i>Further work</i>	<ul style="list-style-type: none"> • The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> • Independent Scoping Study and JORC resource calculation. • Not applicable, commercially sensitive.