RIFT VALLEY RESOURCES LIMITED

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Level 2/23 Barrack St
Perth

Tel +61 8 9221 00 90
Fax +61 8 9221 00 95

ABN 86 121 985 395

INITIAL METALLURGICAL RESULTS FROM LONGONJO PROSPECT

Rift Valley Resources Limited ("the Company") (ASX: RVY) is pleased to announce the results of the initial metallurgical assessment programme at the Company's 70% owned Longonjo rare earth prospect in Angola.

Highlights include: -

- **Metallurgical testwork confirms the high value geochemistry from drilling.**
- **Mineralogy indicates Synchesite as the major rare earth host mineral.**
- **Significant critical and heavy rare earths within the mix.**
- **A Rare Earth distribution comparing favourably with its peers.**

Figure 1: Longonjo Carbonatite vent, looking west from National highway

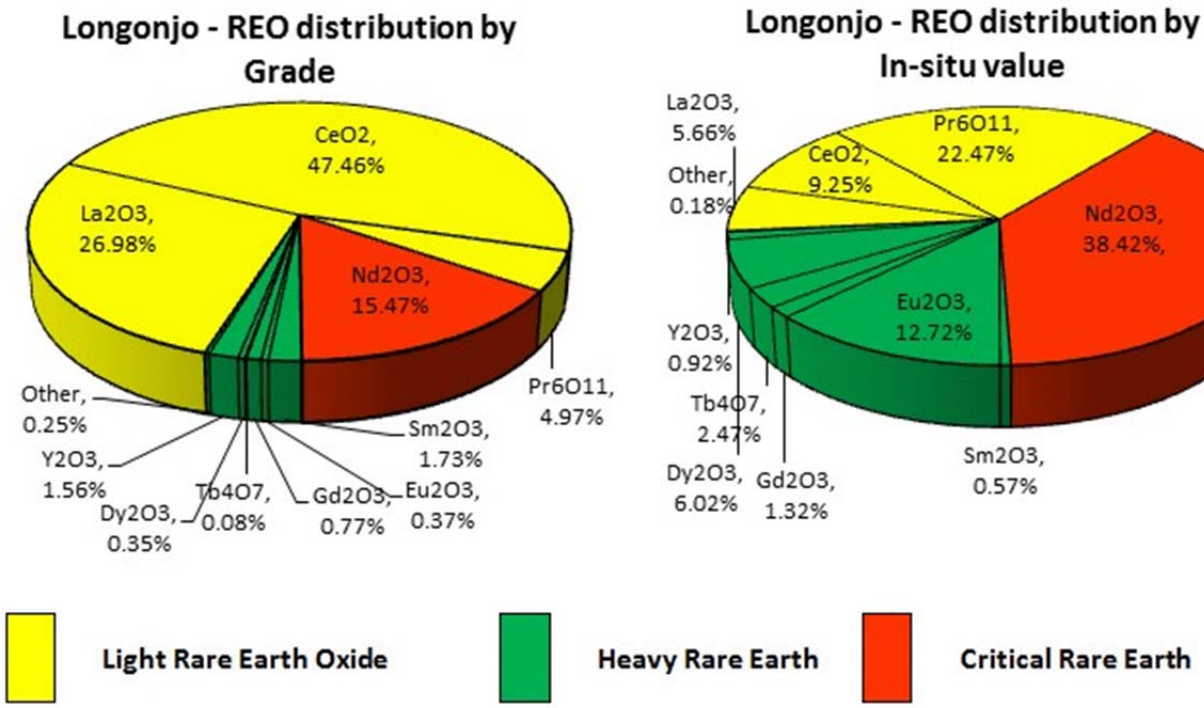
First pass exploratory drilling conducted at the Company's Longonjo prospect in February tested a robust geochemical anomaly and returned high grade rare earth assays, as total rare earth oxides (TREO), from every hole. From a total of 168 composite samples generated during the campaign, the highest grade returned was 11.32%, the lowest 0.45%, with an average of 2.96% TREO over all the samples. The distribution of the major rare earths for the average of the assay results is tabulated below:

	La_2O_3 %	CeO_2 %	Pr_6O_{11} %	Nd_2O_3 %	Sm_2O_3 %	Gd_2O_3 %	Y_2O_3 %	Other %	TREO %
RVY drill campaign	0.78	1.38	0.14	0.45	0.05	0.02	0.05	0.03	2.96

The distribution of the average rare earth oxide values from the drilling campaign compares quite closely with Peak Resources' published Total Ore Reserve distribution as per below:

	La_2O_3 %	CeO_2 %	Pr_6O_{11} %	Nd_2O_3 %	Sm_2O_3 %	Gd_2O_3 %	Y_2O_3 %	Other %	TOTAL %
RVY Drill Campaign	27	47	5	15	2	1	2	1	100
Peak Ore Resource	27	48	5	17	2	1	0	0	100

Of note is that the heavy rare earth oxide (HREO) distribution (Gd_2O_3, Y_2O and "Other") is 4% as opposed to Peak's 1%. The REO distributions at Longonjo by grade and value are presented in the following charts.



NB: Other REE's comprises Ho_2O_3, Er_2O_3, Tm_2O_3, YB_2O_3 and Lu_2O_3
Distribution does not take into account mining and processing recoveries.
Light rare earths (La - Sm), heavy rare earths (Eu - Lu) and critical (Nd)
Prices sourced from Metal Pages (01.05.14)
Critical metals defined by US Department of Energy Critical Materials Strategy 2010

As previously announced (31.03.14), an initial metallurgical characterisation programme was initiated in April on samples from the Company's Longonjo rare earth prospect aimed at better understanding the host mineralogy in order to appropriately focus future exploration efforts. The programme aimed to:

1. Identify if there is a natural size versus grade concentration that may aid ore beneficiation.
2. Assess if magnetics may be used for the upgrading rare earth minerals.
3. Investigate the potential for gravity separation.
4. Conduct a mineralogy assessment.

Size characterisations revealed that the distribution of the rare earth and gangue components closely followed mass yield and that there appears to be no advantage in screening fractions to increase grades. Magnetic separation returned a minor, but quantifiable, upgrade of rare earths as did gravity separation testwork. The results of the size distribution analysis, magnetic separation and gravity separation are detailed in Appendix 1.

The mineralogy report identified synchesite as the major rare earth host mineral. Synchesite is a common rare earth host mineral that is anomalously enriched in heavy rare earths. Mkango's (TSX-V: MKA) Songwe Hill project in Malawi is an example of a rare earth synchesite deposit.

The work to date suggests that the Longonjo material is most likely suited to physical upgrading via flotation. As such, a programme is planned to collect sufficient material for quantitative mineralogy (QEMSCAN) as well as leaching and flotation test work.

Background Information.

The Longonjo REE prospect is located within the Ozango Project, approximately 600km southeast of the Angolan capital Luanda and 50km west of the regional city of Huambo. It is located proximal to good infrastructure including roads, towns and the recently recommissioned railway which links the area to the deep water Atlantic port of Lobito.

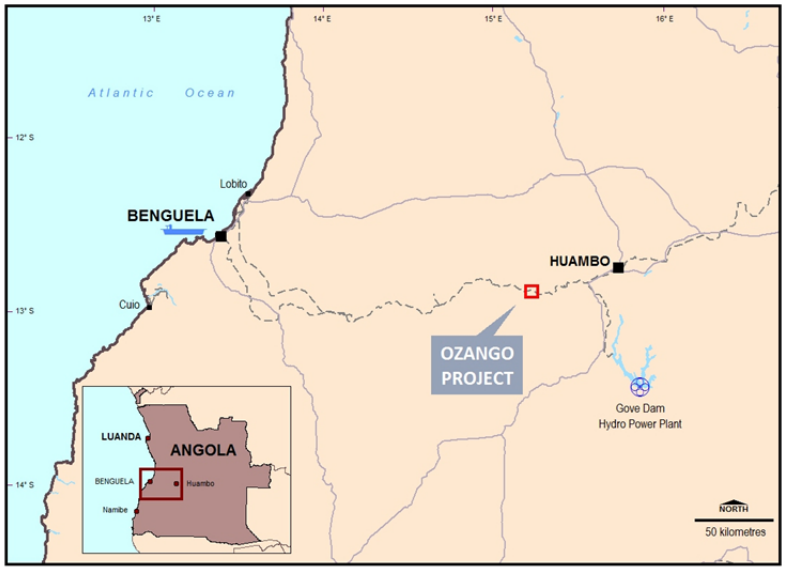


Figure 2: location of Ozango Project containing Longonjo REE prospect

The Ozango Project consists of a single Exploration Licence (009/01/07T.P/ANG-MGMI/2011) that covers a Large area of 3,670 square kilometres. The property extends for 100 kilometres in an east-west direction and varies between 28 to 46 kilometres in width. The northeast corner of the property comes to within 17 kilometres of Huambo.

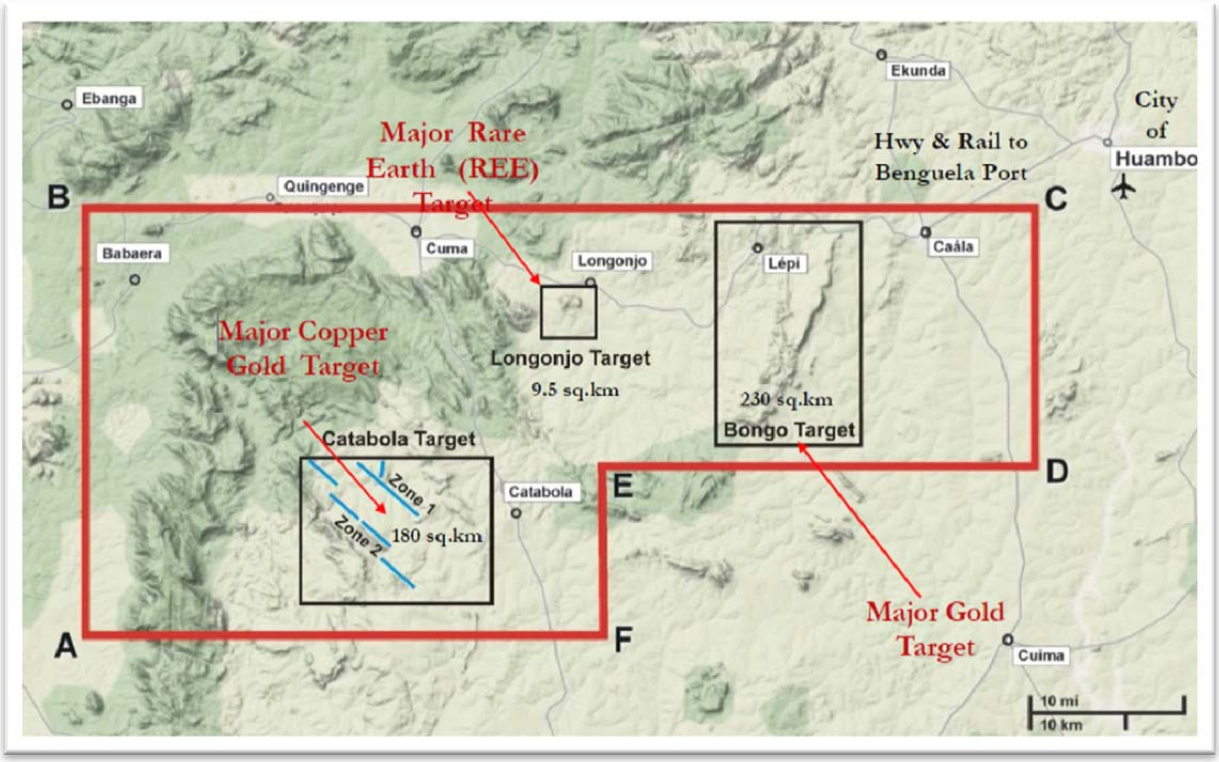


Figure 3: Ozango project showing Longonjo REE Prospect and other major targets

The Project area covers some 3,670km^2 of Archaean/Palaeoproterozoic greenstone rocks that have been intruded by Cretaceous felsic volcanics, carbonatites and kimberlites. These rocks are considered highly prospective for REE, phosphate, copper, iron ore and gold. To date, however, this area has seen very little modern exploration.

The Longonjo REE prospect is the first target within the Ozango Project to be drill tested by Rift Valley. Located near the town of Longonjo in the north-central portion of the Project area the prospect centres on a Cretaceous age, carbonatite intrusive. The geology is typical of REE mines and prospects globally including Lynas Corp's Mt Weld deposit in Western Australia and Peak Resources' Ngualla deposit in Tanzania.

A soil geochemical sampling program undertaken at Longonjo over an area of 8km^2 defined a large and robust 3.5km long and 1.7km wide +0.5% REO 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. The drilling program aims to test the subsurface mineralization and will also provide sufficient sample for an initial metallurgical assessment to be carried out.

We advise in accordance with Australian Stock Exchange Limited Listing Rules 5(6) that the exploration results contained within this ASX Release 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 consultant 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".

The information in this release that relates to Metallurgical Testwork is based on information compiled and / or reviewed by Mr Gavin Beer who is a Member of The Australasian Institute of Mining and Metallurgy and a Chartered Professional. Mr Beer is a Consulting Metallurgist with sufficient experience relevant to the activity which he is undertaking to be recognised as competent to compile and report such information. Mr Beer consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For further information please contact:

Geoff Gilmour
Managing Director

Rift Valley Resources Limited
Tel + 61 8 9430 9966
Fax + 61 8 9430 9965

info@riftvalleyresources.com.au

Appendix 1 - Metallurgical Characterisation Results

Size (mm)	Yield %	SiO2 %	Fe2O3 %	TREO %
+0.71	20.40	21.99	20.74	20.34
+0.5	19.88	20.90	19.98	19.84
+0.25	25.23	26.25	25.28	24.81
+0.125	13.16	12.85	13.17	12.21
+0.106	2.74	2.59	2.75	2.56
+0.075	3.99	3.79	3.86	3.74
+0.063	2.07	1.93	2.00	1.96
+0.053	1.11	1.07	1.06	1.07
+0.038	2.71	2.48	2.56	2.62
+0.020	2.82	2.50	2.68	2.87
-0.020	5.88	3.65	5.94	7.97
	100	**100**	**100**	**100**

Size by Assay Distribution – Sample MS 4

-0.5+0.25mm Size Fraction				
SG Fraction	**Yield %**	**SiO2 %**	**Fe2O3 %**	**TREO %**
+3.3	9.66	6.16	21.49	6.12
-3.3+2.96	30.99	28.16	32.15	40.90
-2.96	59.36	65.68	46.36	52.98
	100	**100**	**100**	**100**
-0.106+0.063mm Size Fraction				
+3.3	9.66	3.45	14.04	9.80
-3.3+2.96	30.99	4.86	8.24	10.63
-2.96	59.36	91.68	77.73	79.57
	100	**100**	**100**	**100**

SG Fraction by Assay Distribution (2 size fractions) – Sample MS 4

-0.25+0.125mm Fraction				
Size (mm)	**Yield %**	**SiO2 %**	**Fe2O3 %**	**TREO %**
4500 Gauss	1.55	1.22	7.35	0.29
6500 Gauss	2.41	1.40	6.28	0.39
8500 Gauss	16.91	6.35	22.64	5.09
1000 Gauss	31.73	22.90	36.59	22.89
1200 Gauss	23.97	27.77	19.08	32.12
Non-magnetic	11.13	17.25	5.47	14.13
	100.00	**100.00**	**100.00**	**100.00**
-0.053+0.02mm Fraction				
4500 Gauss	5.17	1.59	11.52	1.11
6500 Gauss	24.67	8.56	34.99	12.14
8500 Gauss	24.67	16.00	29.29	23.53
1000 Gauss	9.83	8.67	10.05	12.65
1200 Gauss	7.83	9.87	6.15	13.33
Non-magnetic	27.83	55.32	8.00	37.23
	100.00	**100.00**	**100.00**	**100.00**

Magnetic Fraction by Assay Distribution (2 size fractions) – Sample MS 4

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	• Rock chip samples from outcrop.
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• None taken.
	• *Aspects of the determination of mineralisation that are Material to the Public Report.*	• Samples assayed for a suite of REE elements as well at U, Th, P, Fe and Ca.
	• *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.*	• Rock chip samples were taken from which 3kg was pulverised to produce a 30g charge for fusion and ICP-MS analysis.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• No drilling.

Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Not a drilling sample
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	• Not a drilling sample
	• *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.*	• Not a drilling sample
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	• The rock chips were determined as the host carbonatite in outcrop before sampling by the field geologist.
	• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	• Was not logged.
	• *The total length and percentage of the relevant intersections logged.*	• 0%.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• Was not core.
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	• Whole rock chip sampled.
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• No sample preparation carried out. Whole rock chip collected which is required for a representative metallurgical sample.
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• At this stage of the exploration, field 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.
	• *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.*	• No field duplicates were taken. It was only two samples.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The sample sizes are considered more than adequate to ensure that there are no particle size effects.

Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	• The fusion digest is a complete digest and is the best available for the ICP-MS finsh. Checks against a 4 acid (hydrofluoric, nitric, perchloric and hydrochloric acids) will be carried out on the pulps as a check.
	• *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.*	• 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.
	• *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.*	• There were no QC results (blanks, duplicates, standards) as it was only two samples. Aqua regia digestion was used.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.*	• There were no significant intersections
	• *The use of twinned holes.*	• No twin holes undertaken
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	• Data storage as micromine files on company PC in Perth office
	• *Discuss any adjustment to assay data.*	• No adjustments to the assay data have been made.
Location of data points	• *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.*	• All sample locations were surveyed using a hand held GPS, accurate to within 3-5m.
	• *Specification of the grid system used.*	• The grid system used is WGS84 Zone 338. All reported coordinates are referenced to this grid. The topography was flat.
	• *Quality and adequacy of topographic control.*	• Topography was fairly flat, small differences in elevation between samples will have no effect on the metallurgy reported.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*	• Rock chips samples approximately 150m apart.
	• *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.*	• No new resource has yet been calculated. Previous resource calculation was completed in 2011.
	• *Whether sample compositing has been applied.*	• No.

Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Not drilling. • Not drilling.
Sample security	• *The measures taken to ensure sample security.*	• Sample security is managed by the Company. After collection in the field the samples were transported by the Company directly to the assay laboratory. The assay laboratory audits the samples on arrival and reports any discrepancies back to the Company. No such discrepancies occurred.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No review of the sampling techniques has been carried out. The database is compiled by an independent contractor and is considered by the Company to be of sufficient quality to support the results reported. In addition, from time to time, the Company carries out its own internal data audits.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Prospecting License 009/01/07/T.P/ANG-M.G.M.I/2011 • The tenements are in good standing and no known impediments exist.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous workers in the area include Black Fire Minerals and Cityview Corporation LTD to NI43-101 standards.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Cretaceous, carbonatite hosted, disseminated rare earth and niobium.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.*	• See previous press release (31.03.14)
	• *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.*	• No information is excluded
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	• No weighting or averaging calculations were made, assays reported and compiled on the "first assay received" basis. No cuts applied.
	• *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.*	• No intercepts reported.
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• 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.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.*	• Mineralisation widths were not reported.
	• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	• Geometry of mineralisation is not known.
	• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• No widths or lengths reported.

Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• No drilling reported.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Summary tables provided in the text. Detailed results tabulated in appendix 1.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• See details from previous ASX releases dealing with Longonjo work activities and programmes; these can be accessed via the internet.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• A programme of quantitative mineralogy (QEMSCAN) as well as leaching and flotation test work. • Not applicable, commercially sensitive.