

ANSTO MINERALS CONFIRMS 66% TREO CONCENTRATE FROM KANGANKUNDE IS NOT CLASSIFIED AS RADIOACTIVE FOR TRANSPORT PURPOSES

- Independent government agency Australian Nuclear Science and Technology Organisation ("ANSTO") Minerals Division confirms Kangankunde Rare Earth mineral concentrates are not classified as radioactive for transport
- Concentrate grading up to 66% TREO achieved by beneficiation using gravity and magnetic separation techniques
- Metallurgical testing ongoing including pilot-scale testing and variability testing
- These results are being used for process engineering and design

Lindian Resources Limited (ASX:LIN) ('Lindian' or the 'Company') is pleased to report results from an independent analysis of mineral concentrates and an update on the progress of metallurgical work.

The purpose of the ongoing metallurgical and product characterisation program is to further define the product quality and metallurgical metrics for the Stage 1 Rare Earths concentrator facility at the Company's fully permitted, Kangankunde Rare Earths project in Malawi (*see images 1-3 following*).

Chief Executive Officer Alistair Stephens said: "Having confirmation from ANSTO Minerals, the highly regarded Australian Government nuclear science and technology organisation, that the rare earth concentrate from Kangankunde is not classified as radioactive for transport purposes (i.e. Class 7) is very significant for the project. Firstly, it confirms the greatly simplified logistics options for transport of the concentrate, and secondly, it promises a broader range of global off-take options.

"Additionally, demonstrating production of a mineral concentrate grading 66% TREO, using only mineral beneficiation techniques, demonstrates a clear advantage for Kangankunde and what it can deliver for future off-take partners. The company will seek to produce a concentrate grade that maximises project profitability.

"We are also pleased to report that metallurgical testing in ongoing, with multiple testing programs underway. The technical team is diligently working through optimising and de-risking the process scheme, which includes pilot-scale testing as well as metallurgical variability testing. The resulting data will be used for process engineering and design for the Stage 1 processing plant, as well as provide a basis for an ensuing feasibility assessment.

"We are encouraged with the progress being made as we ramp up project development activities and we look forward to providing a steady stream of updates as the Stage 1 project starts to take shape."

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Radioactivity Analysis of Kangankunde Rare Earth Concentrate

Two samples of REO-bearing monazite concentrate (-53 μ m and -125+53 μ m) were submitted to the Minerals Division of ANSTO for natural radioactivity analysis. The monazite concentrates, grading 52.4% TREO for the -53 μ m fraction and 66.9% TREO for the -125+53 μ m fraction, were produced by gravity beneficiation of a sample of Kangankunde mineralisation to produce a gravity concentrate, which was then subjected to sequential wet high intensity magnetic separation (WHIMS) to produce a rare earth oxide (REO) concentrate.

From the analysis of these two samples, it was determined that the concentrates would not be classified as radioactive (Class 7) for transport purposes. For transport of radioactive materials, the IAEA Regulations for the Safe Transport of Radioactive Material¹, forms an integral part of regulations worldwide and is a requisite source of information for governments, regulators and all individuals involved in the transport of radioactive material. Based on the requirements of this regulation, both of the monazite concentrates analysed would not be classified as radioactive for transport and hence, would be exempt from the requirements of this regulation.

Metallurgical Testing

Various metallurgical testing programs are ongoing. An orientation program has been completed and is being used as the basis for tests on bulk samples and drill core. Bulk samples collected have been prepared in South Africa; the samples have undergone pilot-scale screening and spiralling testing at the LightDeepEarth Laboratory (Pretoria), and are currently undergoing pilot-scale testing of the multi-gravity separator (MGS) at Coremet (Pretoria). A photograph of spiralling apparatus used is shown in Image 1 and photographs of the MGS testing are shown in Image 2, and a commercial-scale MGS 902 machine is shown in Image 3.

Additionally, drill core has been sent to Australia for metallurgical testing at ALS Metallurgy's laboratory in Perth. This program has commenced and will cover comminution, beneficiation and determination of REO concentrate product quality. This work will provide insight to metallurgical variability and confirm processing requirements, which is being used for process design and product marketing purposes.

The results from these programs are being used for process engineering and design.

¹ International Atomic Energy Agency, 2018. Regulations for the Safe Transport of Radioactive Material. IAEA Safety Standards Series, ISSN 1020-525X; no. SSR-6 (Rev 1). The SSR-6 takes precedence over all other IAEA documents in relation to transportation of radioactive material.



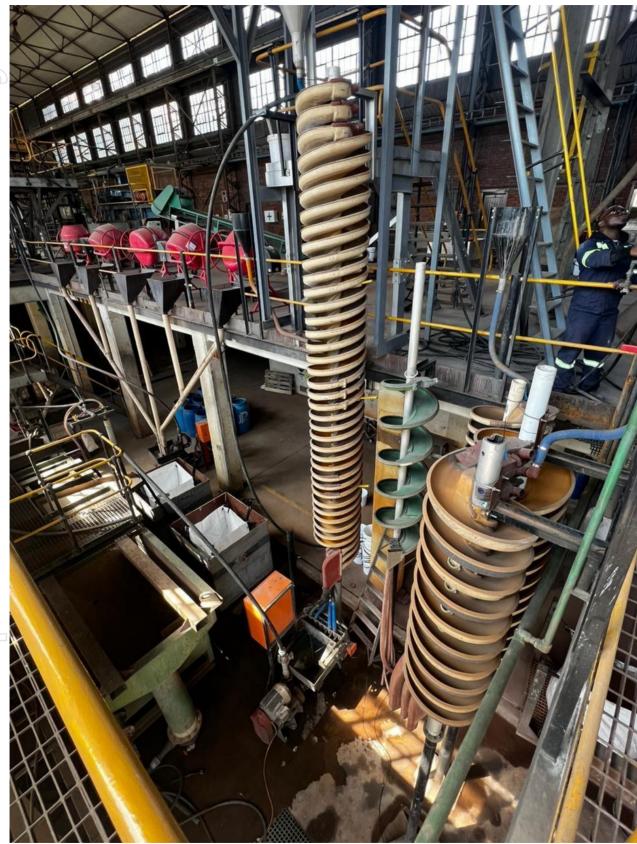


Image 1. Spiralling test-work being undertaken at LightDeepEarth in South Africa.





Image 2. Multi-Gravity Separator Testing at Coremet in South Africa. (Top: MGS 900 test machine. Bottom: MGS 900 machine processing Kangankunde mineralisation)



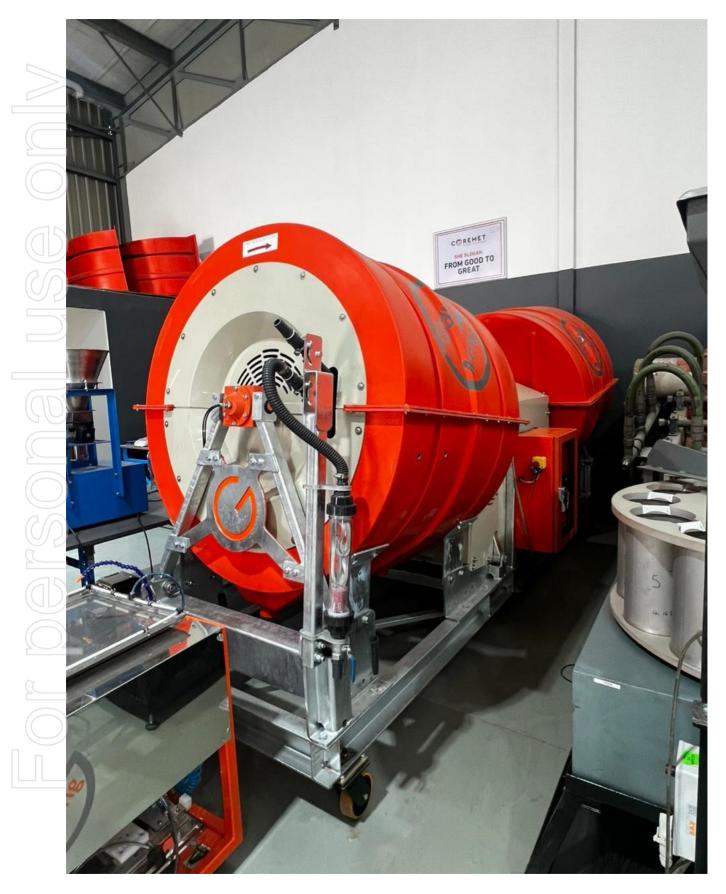


Image 3. MGS 902 Machine at Coremet in South Africa.



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This ASX announcement was authorised for release by the Lindian Board.

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Competent Persons Statement

The information in this Report that relates metallurgy testwork and results is based on information compiled by Dr. Marc Steffens, who is a Member of the Australian Institute of Mining and Metallurgy (AusIMM). Dr. Steffens is a consultant metallurgist engaged by Lindian Resources and a principal of Specialised Metallurgical Services Pty Ltd. Dr. Steffens has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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' (JORC Code).

Dr. Steffens consents to the inclusion in this market release of the matters based on the information in the form and context in which it appears.

Forward Looking Statements

This announcement may include forward-looking statements, based on Lindian's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Lindian, which could cause actual results to differ materially from such statements. Lindian makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of the announcement.



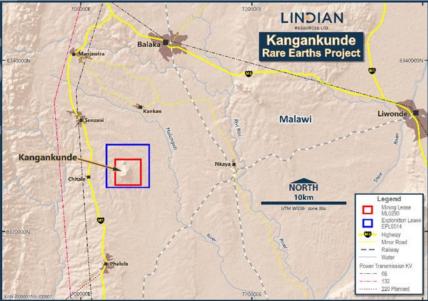
About Lindian

RARE EARTHS

Lindian Resources Limited will progressively acquire 100% of Malawian registered Rift Valley Resource Developments Limited and its 100% owned title to Exploration Licence EPL0514/18R and Mining Licence MML0290/22 (refer ASX announcement ASX:LIN dated 1 August 2022) issued under the Malawi Mines and Minerals Act 2018. The Exploration and Mining Licences have an Environmental and Social Impact Assessment Licence No.2:10:16 issued under the Malawi Environmental Management Act No. 19 of 2017. The Kangankunde Project, located within MML0290, has been subject to significant historic exploration by Lonrho Plc (Lonrho) in the 1970's and the French geoscience Bureau de Récherches Géologiques et Minières (BRGM) in the 1990's. The project has an underground adit (a horizontal drive with cross cuts extending at least 300 metre underground) and exploration sampling by trenching and drilling has identified significant nonradioactive monazite mineralisation over a footprint of at least 800m by 800m.



Malawi is a country in southern and eastern Africa that parallels the great Lake Malawi, the 5th largest freshwater lake in the world that fills part of the massive rift valley of the Africa continent. Malawi is a peaceful country known ubiquitously as "the warm heart of Africa", with a government and legal system emanated from the English Westminster system (from colonial rule up to 1964). The Malawi economy is currently heavily reliant on agriculture, a small manufacturing sector and foreign aid. Over 80% of Malawians living in rural areas are engaged in traditional subsistence agriculture. The mining industry in Malawi is in its infancy with a new Mining Act introduced in 2019 expected to forge the way for significant expansion and growth. Having seen the impact of mining in neighbouring countries, the Malawi Government has placed mining as the primary growth sector to diversify the Malawi economy and improve living conditions for its people. A growing mining industry is the central plank of the current President's plans for employment. Significant mineral endowment exists in the form of rare earths, uranium, niobium, tantalum, and graphite in a country substantially underexplored.



Kangankunde is located 90 kilometres north of the city of Blantyre, the main economic and commercial centre in Malawi. The town of Balaka, 15 kilometres to the north of Kangankunde, a regional trade centre, has a population of about 36,000 people. The project is located close to the main M1 highway, rail lines to ports and high voltage transmission lines.



Tenure and licences

Lindian Resources Limited will progressively acquire 100% of Malawian registered Rift Valley Resource Developments Limited and its 100% owned title to Exploration Licence EPL0514/18R and Mining Licence MML0290/22 (refer ASX announcement ASX:LIN dated 1 August 2022) issued under the Malawi Mines and Minerals Act 2018. The Exploration and Mining Licences have an Environmental and Social Impact Assessment Licence No.2:10:16 issued under the Malawi Environmental Management Act No. 19 of 2017.

MINING LICENCE **ENVIRONMENTAL LICENCE EXPLORATION LICENCE** MALAWI GOVERNMENT MALAWI GOVERNMENT Mines and Minerals Act MEPA No: 2 ESIA CERTIFICATE No: 2.10.16 (Act No.8 of 2019) Mines and Minerals Act (Act No.8 of 2019) ENVIRONMENT MANAGEMENT ACT (No. 19 OF 2017) Exploration Licence No. EL0514/18R Medium-Scale Mining Licence No. MML029 CERTIFICATE OF APPROVAL OF A PROJECT This Licence's term is extended this 16th day of October, 2021 by th unted this 22 nd day of .A. Government of Malawi, acting through the Minister of M This Licence is gn TERMS of ct, I TAWON MRALE, LUI To KANGANKUDE MONAZITE MINE To RIFT VALLEY RESOURCE DEVELOPMENTS LIMITED RIFTVALLEYRESO URCE DEVELOPMENTS LIMITED having its registered address at P.O. BOX 331, LILONGWE, MALAWI neuron is registered adaress at 820, 902, 531, ELEONY VPE, PALENTI who have duly accepted the terms and conditions attached. This ficence grants the licensee the exclusive right to prospect for mineral(s) in the area as described overleaf and outlined in a plan Appendix A, for a term of TWO years commercing on the above dath with an option to extend the term in accordance with Section 119 of the Mines and Minerals Act. No to a having its registered address at P.O. BOX 331, LILONGWE, MALAWI, 27th day or SEPTEMBER 2021 aving its registere a carres at vev. NOA 501, LILONGWE, WALWE, who have duly accepted the terms and conditions attached. This licence confers the licensee the exclusive right to prospect for and mine mineral(s) in the area as described overleaf and outlined in a plan Appendix A, CTOR GENERAL, MEPA Thay ontion to for a term of TEN years commencing on the above date with an extend the term in accordance with Section 154 of the Mines and Mine Dated this ??... day of .. APRIL ... 2022 Dated this 72" day of APRIL in 2022 Humm 1212 IAPR 202 THE DIRECT Anno Hon. Dr. Albert Map dera Mha ala. MP. Hon. Dr. Albert Mapor dera Mhan ala MPP. APR 2022 Minister of Mining Minister of Mining

JORC Code, 2012 Edition – Table 1 report

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.	Mineral concentrates tested were derived from grab samples collected from surface exposures of mineralised carbonatite. Samples were chosen that contained visible monazite mineralisation. Representivity of samples not known.
(15)	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	All analytical subsampling and analysis using industry standard techniques for rare earth elements.
	 Aspects of the determination of mineralisation that are Material to the Public Report. 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. 	
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).	N/A – Grab samples
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed.	N/A – Grab samples
	• Measures taken to maximise sample recovery and ensure representative nature of the samples.	
	• 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.	



Criteria	JORC Code explanation	Commentary
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.	N/A – Grab samples
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	
	The total length and percentage of the relevant intersections logged.	
Sub-sampling	• If core, whether cut or sawn and whether quarter, half or all core taken.	N/A – Grab samples
techniques and sample preparation	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Metallurgical samples were collected and prepared by crushing and grinding, followed by screening into coarse and fine fractions, each of which were beneficiation separately by
Ð	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	gravity concentration and sequential wet high intensity magnetic separation.
3	 Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 	
D	 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. 	
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	
Quality of assay	• The nature, quality and appropriateness of the assaying and laboratory	Assay and Laboratory Procedures – All Samples
data and laboratory tests	procedures used and whether the technique is considered partial or total.	The sample preparation and assay/analytical techniques used are industry standard.
	 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. 	Test samples for shaking table and MGS testing were assayed at ALS Metallurgy in Balcatta, WA.
\bigcirc	Nature of quality control procedures adopted (e.g. standards, blanks,	REO assays were determined by fusion and XRF/ ICP analysis.
	duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Test samples for magnetic separation testing were undertaken by wet high intensity magnetic separation (WHIMS) at Nagrom laboratory in Kelmscott, WA.
Verification of	• The verification of significant intersections by either independent or	No twinning or independent verification of results conducted.
sampling and assaying	alternative company personnel.The use of twinned holes.	All assay data received from the laboratory in element form is unadjusted for data entry.



Criteria	JORC Code explanation	tion Commentary				
	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	Conversion of elemental analysis (REE) to stoichiometric oxide (REO) was undertake spreadsheet using defined conversion factors.(Source: <u>https://www.jcu.edu.au/advan</u> analytical-centre/services-and-resources/resources-and-extras/element-to-stoichiom oxide-conversion-factors)				
			Element ppm	Conversion Factor	Oxide Form	
			Ce	1.2284	CeO ₂	
			Dy	1.1477	Dy ₂ O ₃	
			Er	1.1435	Er ₂ O ₃	
			Eu	1.1579	Eu ₂ O ₃	
			Gd	1.1526	Gd ₂ O ₃	
			Ho	1.1455	Ho ₂ O ₃	
			La	1.1728	La ₂ O ₃	
			Lu	1.1371	Lu ₂ O ₃	
			Nd	1.1664	Nd ₂ O ₃	
			Pr	1.2082	Pr ₆ O ₁₁	
			Sm	1.1596	Sm ₂ O ₃	
			Tb	1.1762	Tb ₄ O ₇	
			Tm	1.1421	Tm ₂ O ₃	
			Y Yb	1.2699 1.1387	Y ₂ O ₃ Yb ₂ O ₃	
		calculations are u	is the industry ac used for compilin	ccepted form for repo g REO into their repo	orting rare earths.	
		Note that Y ₂ O ₃ is	included in the T	REO calculation.		
				La2O3 + CeO2 + Pr6C + Er2O3 + Tm2O3 + Yt		
		HREO (Heavy Ra Er ₂ O ₃ + Tm ₂ O ₃ + `		= Sm ₂ O ₃ + Eu ₂ O ₃ + G _u ₂ O ₃	$d_2O_3 + Tb_4O_7 + Dy_2$	2O3 + Ho2O3
		LREO (Light Rare	e Earth Oxide) =	La ₂ O ₃ + CeO2 + Pr ₆ C	0 ₁₁ + Nd ₂ O ₃	
		NdPrO% = Nd ₂ O	3 + Pr ₆ O ₁₁			
		NdPrO% of TREC	D= NdPrO%/TRE	O x 100		



Criteria	JORC Code explanation	Commentary
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	Samples collected from surface around location: WGS84 UTM Zone 36S 705490mE, 8327070mN, 787mRL.
Data spacing and distribution	 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. 	N/A – Grab samples
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. 	N/A – Grab samples
Sample security	The measures taken to ensure sample security.	Samples freighted from Malawi to Brisbane for sterilisation then road freight to Perth for sample preparation and testing. Samples were kept secure and in control of freight agents. Sample for MGS testing was freighted from Malawi to Johannesburg for sample preparation, and then freighted to Gravity Mining UK. Samples were kept secure and in control of freight agents.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	N/A – No audits conducted



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. 	The Kangankunde Project comprising granted Exploration Licence EPL0514/18R and Mining Licence MML0290/22 is 100% owned by Rift Valley Resources (RVR) a Malawian registered company. Lindian Resources has a purchase agreement in place to acquire 100 % of RVR.
Exploration done by other	Acknowledgment and appraisal of exploration by other parties.	Previous exploration includes:
parties		1952-1958: Eight trenches excavated. No data records known to exist.
		1959: Geological mapping, ten trenches excavated, seven drill holes drilled below main trenches. Data not sighted.
		1972-1981: Trench mapping and sampling, adit driven 300 metres north to south with several crosscuts. Diamond drilling from crosscuts. Pilot plant operated producing strontianite and monazite concentrate. Limited data available in hard copy only.
		1987- 1990: Feasibility study activities including surface core drilling, processing studies, geotechnical and groundwater studies, estimation of "geological reserves" (Not JORC compliant). Limited data available in hard copy reports.
EBR		Historical data is largely not available or not readily validated and is currently not reported.
Geology	Deposit type, geological setting and style of mineralisation.	Intrusive carbonatite containing monazite as the main rare earth bearing mineral.
		The Kangankunde carbonatite complex is characterized by an elliptic structure centering Kangankunde Hill. The diameters in N-S and E-W directions are 900m and 700m, respectively.
\bigcirc		In the ellipse, the following rocks are zonally arranged from the centre to the outer part; carbonatites, carbonatized breccias, wall rock / carbonatite breccias and basement rocks.
		The carbonatites are dolomitic, sideritic and ankeritic and at surface are distributed widely on the northern and western slopes of the Kangankunde Hill. Manganese carbonatite is found at the top and on the eastern slope of the hill.
dD		Monazite is found in all carbonatite types in varying quantities. Other associated minerals are strontianite, barite and apatite.



Criteria	JORC Code explanation	Commentary
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: 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. 	
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. 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. 	
Relationship between mineralisatic widths and intercept lengths	 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 (e.g. 'down hole length, true width not known'). 	
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. 	from grab samples
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.	metallurgical test-work.
Other substantive exploration	 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 	Other evaluation data relating to encode drilling programs is being reported and require



Criteria	JORC Code explanation	Commentary
	treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
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. 	including metallurgical optimization, metallurgical variability and resource definition.