Ngualla Rare Earth Project - Updated Ore Reserve

Peak Resources Limited (ASX: **PEK**) (**"Peak"** or the "**Company**") is pleased to provide a revised Ore Reserve estimate for the Ngualla Rare Earth Project in Tanzania**.**

The updated Ore Reserve estimate for the Ngualla Project is 18.5 million tonnes at 4.80% REO (total rare earth oxide plus yttrium) for 887,000 tonnes contained REO and is classified as shown in Table 1 below:

Table 1: *Ngualla Project Ore Reserve estimate.*

CATEGORY	ORE TONNES (MT)	REO %	CONTAINED REO (TONNES)
Proved	17.0	4.78	813,000
Probable	1.5	5.10	74,000
Total	18.5	4.80	887,000

A multi element cut-off grade is applied. See Table 5 for breakdown of individual REO's

The Ore Reserve is reported in accordance with the JORC Code 2012, is estimated by Mr. Ryan Locke of independent mining consultancy Orelogy Consulting Pty Ltd and accompanies the announcement by the Company of a positive Bankable Feasibility Study (BFS) into the development of the Ngualla Project (ASX Announcement "BFS positions Ngualla as one of the world's lowest cost rare earth projects" of 12 April 2017.

A detailed summary of the supporting material assumptions and data (Table 1 as per JORC 2012 Guidelines) is provided in the Appendix and in Table 2 overleaf. Further details are summarised in the BFS ASX Announcement.

Commenting on the updated Ore Reserve, Peak's Managing Director Mr Darren Townsend said: *"The announcement of this Ore Reserve estimate accompanies the completion of the Bankable Feasibility Study for Ngualla; both are major milestones in the development of the Ngualla Project into a low cost producer of magnet metal rare earth products. The Ore Reserve is not only one of the world's largest but is also high quality, with over 91% in the highest JORC Proved category."*

Ore Reserve estimate

In determining the updated Ore Reserve estimate, Orelogy completed detailed mine planning work based on the Measured and Indicated portions of the Weathered Bastnaesite Zone Mineral Resource above a 1% REO lower grade cut-off (see Table 6 for Mineral Resource classification details). No Inferred Mineral Resource was included.

Various assumptions and Modifying Factors were considered which are summarised in Table 2 below and are and discussed in more detail in Appendix 1 as well as in the BFS Executive Summary, released as an ASX Announcement simultaneously with this Ore Reserve estimate.

Table 2: *Summary of the Material Modifying Factors applied in the Ore Reserve estimate.*

ITEM	UNIT	VALUE
Average Mining Cost	US $ / Tonne Mined	$2.67
Mining Loss	%	6.0%
Mining Dilution	%	0%
Production rate	Concentrate Tonne / Year	30,000
Processing Cost Ngualla - Variable	US $ / Tonne ore	$20.44
Processing Cost Ngualla – Fixed	US $M / Annum	$16.85
Processing Cost Ngualla - Variable	US $ / kg REO	$0.443
Processing Cost Teesside– Variable + Fixed (including Shipping)	US $ / Tonne Concentrate	Calculated[1] Average = $50M p.a.
Processing feed input	Max Tonne per annum	664,900
Processing recovery	%	See Table 3
Resource categories included	Weathered Bastnaesite Zone	Measured and Indicated
REO minimum grade	% REO	1%
High purity separated REO products price	US $ / kg	See Table 3
Tanzanian Royalties	%	3.0%
Appian / IFC Royalty	%	2.0%
Local service levy (applied to value of the beneficiated concentrate)	%	0.3%
Capital Costs – Tails	$ / Tonne Tails	$1.82

[1] US $ / Tonne Concentrate = 14.5+0.000761 x Concentrate Feed + 0.001159 x Annual Concentrate feed x Feed Grade/100.

A multi element cut-off grade was applied throughout the BFS and Ore Reserve estimation. Metallurgical test work has shown high rare earth recoveries can be expected from the Weathered Bastnaesite Zone portion of the Total Ngualla Mineral Resource using the metallurgical process demonstrated. A predictive mineralogical model has been developed using drill assays and lithological logging supported by mineralogical studies (XRD and QEMSCAN) and flotation testwork. As a result, cut-off grades and blending strategies have been defined around gangue elements of silicon, calcium, iron, phosphorus and aluminium to ensure predictable and optimal flotation performance as measured by the grade and recovery of rare earths to the concentrate.

Table 3 details the process recoveries and commodity prices used for the Ore Reserve estimate and final BFS Financial Analysis. The difference in pricing assumptions between the Ore Reserve and the

BFS means that the Ore Reserve estimate and associated LOM schedule can be considered conservative in relation to the final BFS financial analysis.

Table 3: Individual Rare Earth Process Recovery and Price Assumptions for Ore Reserve estimation and Financial Analysis.

OXIDE		TOTAL RECOVERY	PRICE MODEL US$/KG	
			ORE RESERVE ESTIMATE	BFS FINANCIAL ANALYSIS*
Lanthanum	La_2O_3	44.0%	$5.13	$4.41
Cerium	CeO_2	11.3%	$4.69	$2.25
Praseodymium	Pr_6O_{11}	40.1%	$60.00	$85.00
Neodymium	Nd_2O_3	37.4%	$60.00	$85.00
Samarium	Sm_2O_3	33.4%	$50.00	$8.00
Europium	Eu_2O_3	33.4%	$50.00	$8.00
Gadolinium	Gd_2O_3	33.4%	$50.00	$8.00
Terbium	Tb_4O_7	24.4%	$50.00	$8.00
Dysprosium	Dy_2O_3	24.4%	$50.00	$8.00
Holmium	Ho_2O_3	24.4%	$50.00	$8.00
Erbium	Er_2O_3	24.4%	$50.00	$8.00
Thulium	Tm_2O_3	24.4%	$50.00	$8.00
Ytterbium	Yb_2O_3	24.4%	$50.00	$8.00
Lutetium	Lu_2O_3	24.4%	$50.00	$8.00
Yttrium	Y_2O_3	24.4%	$50.00	$8.00

**Life of mine average.*

The BFS Financial Analysis determined that the Ngualla Project is an economically robust and attractive project. The payback of the Project is five years from the start of operations with a Net Present Value of US$445 Million after tax and royalties (at 10% discount) and an Internal Rate of Return of 21%. The material assumptions and outcomes from the BFS are summarised in Table 4 and further detailed in the BFS ASX Announcement and Executive Summary.

Table 4: Physical and Financial Summary of outcomes of the Bankable Feasibility Study.

PRODUCTION ASSUMPTIONS	
Life of Mine	30 Years
Average Life of Mine REO Grade	4.80%
Life of Mine Strip Ratio (Waste:Ore)	1.77
Average Mill Throughput	624,000 tpa
Average REO Mineral Concentrate Production	28,300 tpa
Average NdPr Mixed Oxide 2N Production	2,420 tpa
Average La Oxide Equivalent Production (final product: 6,940 tpa Carbonate)	3,650 tpa
Average Ce Oxide Equivalent Production (final product: 3,005 tpa Carbonate)	1,660 tpa
Average SEG and Mixed Heavy Oxide Equivalent (final product: 530 tpa Carbonate)	280 tpa
OPERATING COSTS	
Average Operating Cost to Mine Gate	US$ 46m p.a
Average Tees Valley Refinery Operating Cost to Final Product	US$ 37m p.a
Total Consolidated Operating Cost to Final Product	US$ 83 m p.a
Total Consolidated Operating Cost/kg (NdPr Mixed Oxide 2N#)	US$ 34.20/kg
CAPITAL COSTS (including growth and contingency)	
Ngualla (Mine and Process)	US$ 52 million
Ngualla (Infrastructure)	US$ 134 million
Tees Valley Refinery	US$ 152 million
Owners Costs	US $18 million
Total Capital Pre-Production	**US$ 356 million**
Average Consolidated Sustaining Capital per annum	US$ 5 million
FINANCIAL METRICS	
Consolidated Total Revenue over life of mine	US$ 6.76 billion
Consolidated Average Annual Revenue	US$ 228 m p.a
Total Consolidated (Post Tax) Cash Generation over life of mine	US$ 3.01 billion
Annual Average Consolidated (Post Tax) Cash flow	US$ 104 m p.a
Average Annual EBITDA	US$ 145 m p.a
NPV_8 - Pre Tax and Royalties	US$ 930 million
NPV_8 - Post Tax and Royalties	US$ 633 million
NPV_{10} - Pre Tax and Royalties	US$ 676 million
NPV_{10} - Post Tax and Royalties	US$ 445 million
IRR - Pre Tax and Royalties	25%
IRR - Post Tax and Royalties	21%
Operating Margin	64%
Payback Period (from start of Operations)	5 years
COMMODITY PRICE ASSUMPTIONS	
Average LOM Product Prices:	
– NdPr Mixed Oxide 2N Min 75% Nd_2O_3	US$ 85.00/kg
– Lanthanum rare earth oxide equivalent	US$ 4.41/kg
– Cerium rare earth oxide equivalent	US$ 2.25/kg
– SEG and Mixed Heavy oxide equivalent	US$ 8.00/kg

Figures above are on a 100% Project basis, Peak holds 75% of the Ngualla Project with partners Appian (20%) and IFC (5%)
#2N= 99% purity. Average Annual statistics are at steady state, post ramp-up.

Table 5: Relative components of individual rare earth oxides (including yttrium) as a percentage of total REO for the Ngualla Project Ore Reserve estimate (refer to Table 1).

RARE EARTH OXIDES		REO GRADE (%)			% OF TOTAL REO		
		PROVED	PROBABLE	ALL	PROVED	PROBABLE	ALL
Lanthanum	La_2O_3	1.318	1.418	1.326	27.59	27.80	27.61
Cerium	CeO_2	2.305	2.456	2.317	48.25	48.15	48.24
Praseodymium	Pr_6O_{11}	0.228	0.243	0.229	4.77	4.77	4.77
Neodymium	Nd_2O_3	0.788	0.838	0.792	16.49	16.43	16.49
Samarium	Sm_2O_3	0.077	0.082	0.077	1.61	1.61	1.61
Europium	Eu_2O_3	0.014	0.015	0.014	0.30	0.28	0.30
Gadolinium	Gd_2O_3	0.029	0.031	0.030	0.62	0.60	0.62
Terbium	Tb_4O_7	0.002	0.002	0.002	0.05	0.05	0.05
Dysprosium	Dy_2O_3	0.004	0.004	0.004	0.07	0.07	0.07
Holmium	Ho_2O_3	0.00	0.000	0.000	0.01	0.01	0.01
Erbium	Er_2O_3	0.001	0.002	0.002	0.03	0.03	0.03
Thulium	Tm_2O_3	0.000	0.000	0.000	0.00	0.00	0.00
Ytterbium	Yb_2O_3	0.001	0.001	0.001	0.01	0.01	0.01
Lutetium	Lu_2O_3	0.000	0.000	0.000	0.00	0.00	0.00
Yttrium	Y_2O_3	0.010	0.010	0.010	0.20	0.19	0.20
Total %:		4.78	5.10	4.80	100	100	100

Values may not balance due to rounding to 0.01%.

The classification of Ore Reserves is derived directly from the Mineral Resource classification where Probable Ore Reserves are based on the Indicated Mineral Resource category and Proved Ore Reserves are based on the Measured Mineral Resource category. Blocks in the Mineral Resource model have been allocated a confidence category based on the number and location of samples used to estimate the grade of each block in conjunction with sample recovery, geological and structural variability and QAQC aspects.

The Ore Reserve is robust at a range of parameters and there is confidence in the Modifying Factors applied due to the detailed BFS completed.

Mining Losses and Dilution

Mining losses and dilution are expected to be minimal due to the thick blanket morphology of the deposit and the use of small mining equipment operating at a relatively slow total mining rate (Max. 2.9Mtpa total ore and waste movement). Total mining losses comprise just 6% of the Mineral Resource available (the Measured and Indicated categories of the ≥1% REO Weathered Bastnaesite Zone Mineral Resource).

Mining loss was applied during the Selective Mining Unit (SMU) re-blocking phase with an ore loss factor of 25% applied on a block by block basis to all blocks horizontally adjacent to at least one waste block. This resulted in a global 6% reduction to the available Mineral Resource. As the above methodology had already accounted for the effects of dilution and ore loss within the block model, a mining recovery of 100% was applied within the optimisation. This “ore loss only” approach was considered appropriate to the small scale mining fleet, low production rates and associated mining selectivity envisaged.

Open Pit Optimisation

The pit optimisation was completed using GEMCOM Whittle 4X software using the January 2016 Ngualla Mineral Resource model completed by SRK Consulting (Australia) Pty Ltd. The resource model was amended to include an allowance for ore loss and dilution.

The optimisation was run using a production rate of 664,900 tonnes per annum feed and 30,000 tonnes per annum of recovered concentrate. Individual REO grades, recoveries and prices were used to maximise total returns by allowing the optimiser and subsequent mine schedule to focus early production on the highest grade areas of Ngualla’s main value drivers (i.e. neodymium, praseodymium and europium).

Only material from the Weathered Bastnaesite Zone with a REO grade above 1% was used in the optimisation. Of this material 91% is in the Measured JORC category and 9% in the Indicated category. The Inferred portion of the Mineral Resource was excluded from the optimisation as per the JORC guidelines.

Mining Method and Infrastructure

Mineralisation within the Weathered Bastnaesite Zone occurs as a flat lying thick blanket with the highest grades at surface and material that is predominantly soft and friable (100% estimated as ‘free-dig’). It is proposed that the deposit be mined by a modest sized but long life open pit operation with a low Life of Mine (LOM) waste:ore strip ratio of 1.77.

The mine design was based on the pit shell selected during the optimisation exercise. Mining is via two 5 metres benches for a face height of 10 metres. The face slope angle is 50 degrees in the weathered saprolitic zone and 75 degrees in unweathered material, with an overall pit slope angle of 25 degrees and 43 degrees respectively. Ramp design is based on the 5.7m wide Caterpillar 775G rigid dump track which requires a dual lane ramp width of 23m.

The mine plan is based solely on the Measured and Indicated portions of the Weathered Bastnaesite Zone Mineral Resource and includes a one year ramp up at 75% production with the nameplate mill throughput being reached in Year 2. The maximum total material movement (ore + waste) for the LOM is a modest 2.9 million tonnes per year.

The mine can provide sufficient feed for 30 years of production within the processing constraints to achieve an average of 28,300t of concentrate per annum at relatively low mining costs of US$0.72/kg of separated rare earth oxide.

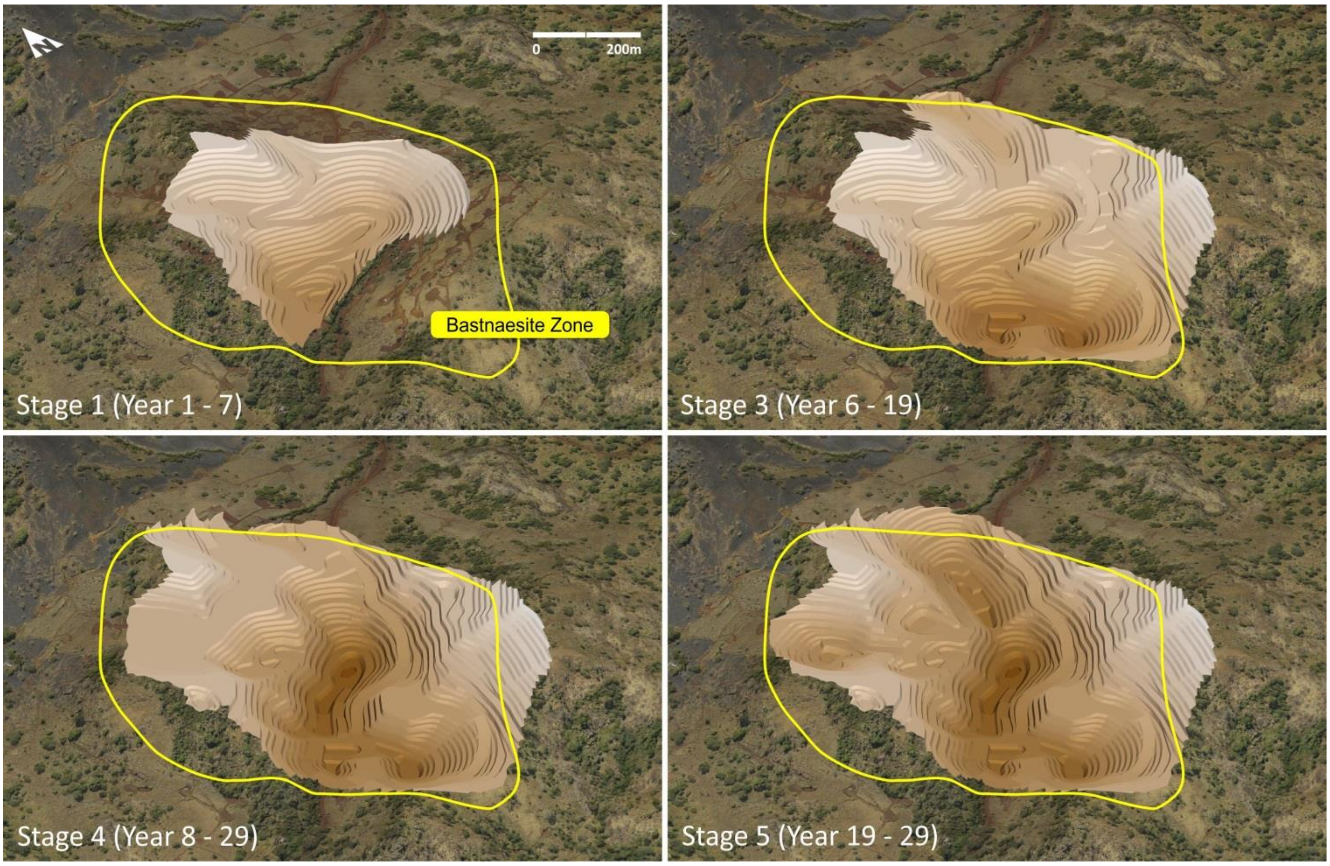

Figure 1: Perspective view of staged pit designs, Ngualla Weathered Bastnaesite Zone looking north east. The ultimate pit is lower right

Infrastructure requirements

The primary infrastructure required for the development of the Project are detailed in the BFS and Appendix 1 and in summary are: general administration, accommodation and services infrastructure, mining facilities, ROM pad, Tailings Storage Facility, a power plant, multi stage processing plant on site at Ngualla. An 80km access road to site requires upgrade to an all-weather standard and this cost has been included in the capital cost estimate for the BFS. A processed high grade 45% REO concentrate totalling an average of 28,300t per annum will be trucked by road from Ngualla to the deep water port of Dar es Salaam for export to a refinery located within an industrial park at Teesside in the United Kingdom. The refinery will produce high purity separated rare earth products for market using available grid power, water and nearby waste disposal facilities. The refinery is included in the capital and operating costs estimates.

Mineral Resource estimation

The rare earth Mineral Resource estimate for the +1% REO Weathered Bastnaesite Zone on which this Ore Reserve is based was reported in accordance with the JORC 2012 Code and Guidelines by independent resource consultants SRK Consulting (Australasia) Pty Ltd (SRK) in February 2016 (ASX announcement "Higher grade Ngualla Mineral Resource contains nearly 1 million tonnes rare earth oxide" of 22 February 2016). The Mineral Resource estimate was re-stated in March 2017, also by SRK, to report barite (barium sulphate, $BaSO_4$), ("Ngualla Mineral Resource estimate re-stated to include barite" of 2 March 2017). See Appendix 1 for JORC Table 1 which includes details of the estimation process. Barite is not included in the BFS study or Ore Reserve but represents a potential future upside to the project that is identified but requires further study. The Weathered Bastnaesite Zone is defined as colluvial or weathered saprolite rare earth mineralisation containing less than 14.0% CaO and 0.69% P_2O_5.

As at the date of this report there has been no change to the rare earth Mineral Resource estimate or estimation methodology since the 22 February 2016 Announcement.

Table 6: Mineral Resource estimate summary - Weathered Bastnaesite Zone +1% REO*.

LOWER CUT-OFF GRADE	JORC RESOURCE CATEGORY	TONNAGE (MT)	REO (%)	CONTAINED REO TONNES ('000)
1% REO	Measured	18.9	4.75	900
	Indicated	1.9	4.85	90
	Inferred	0.5	4.43	20
	Total	21.3	4.75	1,010

**REO = total rare earth oxides including yttrium. See Table 7 for relative distributions of individual rare earths as a proportion of total REO. Figures may not sum due to rounding.*

Table 7: Weathered Bastnaesite Zone Mineral Resource +1% REO. Individual rare earth oxide grades and percentages of total REO.

RARE EARTH OXIDES		REO GRADE (%)				% OF TOTAL REO			
		MEASURED	INDICATED	INFERRED	ALL	MEASURED	INDICATED	INFERRED	ALL
Lanthanum	La_2O_3	1.309	1.345	1.200	1.310	27.57	27.72	27.09	27.58
Cerium	CeO_2	2.292	2.339	2.128	2.293	48.28	48.18	48.04	48.27
Praseodymium	Pr_6O_{11}	0.227	0.231	0.213	0.227	4.77	4.75	4.82	4.77
Neodymium	Nd_2O_3	0.783	0.799	0.763	0.784	16.48	16.45	17.23	16.50
Samarium	Sm_2O_3	0.076	0.078	0.071	0.076	1.60	1.61	1.60	1.60
Europium	Eu_2O_3	0.014	0.014	0.013	0.014	0.30	0.29	0.29	0.29
Gadolinium	Gd_2O_3	0.029	0.030	0.027	0.029	0.62	0.61	0.61	0.61
Terbium	Tb_4O_7	0.002	0.002	0.002	0.002	0.05	0.05	0.05	0.05
Dysprosium	Dy_2O_3	0.004	0.004	0.003	0.004	0.07	0.07	0.07	0.07
Holmium	Ho_2O_3	0.000	0.000	0.000	0.000	0.01	0.01	0.01	0.01
Erbium	Er_2O_3	0.002	0.002	0.002	0.002	0.03	0.04	0.04	0.03
Thulium	Tm_2O_3	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
Ytterbium	Yb_2O_3	0.001	0.001	0.000	0.001	0.01	0.01	0.01	0.01
Lutetium	Lu_2O_3	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
Yttrium	Y_2O_3	0.010	0.010	0.007	0.010	0.20	0.20	0.16	0.20
Total REO*	REO	4.75	4.85	4.43	4.75	100.00	100.00	100.00	100.00

** Figures may not sum due to rounding.*

Processing Method

Peak has developed and successfully demonstrated a metallurgical process for taking the Weathered Bastnaesite Zone mineralisation through to high purity separated rare earth oxide products.

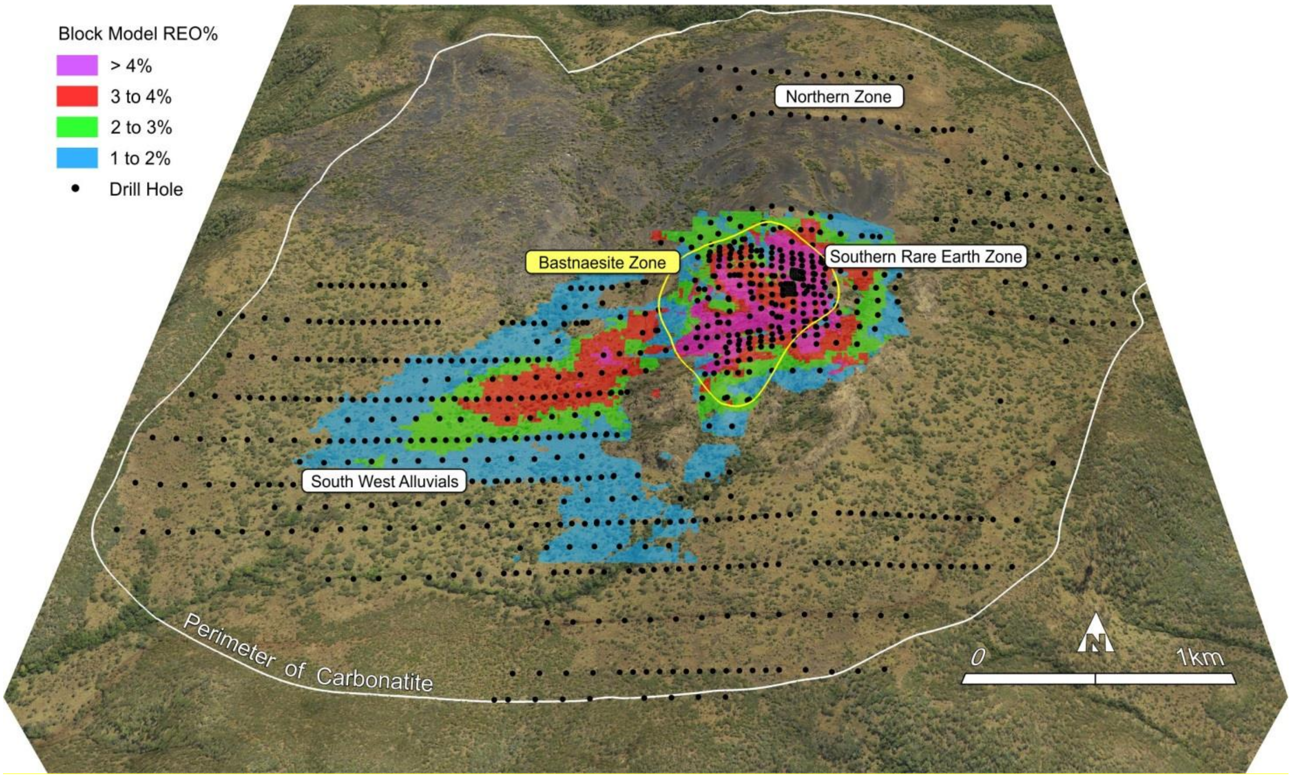

Figure 2: Perspective view of Ngualla Mineral Resource block model +1% REO coloured by REO grade with drill holes on satellite image draped over topography. The Ore Reserve is located within the Bastnaesite Zone yellow boundary.

The three stage process consists in summary of:

1. **Beneficiation** – physical concentration of the rare earth host minerals and rejection of gangue minerals,
2. **Recovery** – chemical recovery, purification and concentration of the rare earths using a selective dilute acid leach,
3. **Separation** – purification and recovery of individual or grouped high purity rare earth products via solvent extraction.

The process is detailed further in the BFS ASX Announcement Executive Summary.

Uranium and thorium levels are extremely low within the ore body and average only 14ppm and 55ppm respectively. No deleterious elements have been identified.

Status of Environmental Approvals

The Environmental Certificate for the Ngualla Project was received from Tanzanian regulators on 17 March 2017. The certificate of environmental approval was granted after the successful completion of a detailed Environmental and Social Impact Assessment Study overseen by regulators National Environment Management Council (NEMC). The study included wet and dry season baseline studies, socioeconomic reports, stakeholder consultation at local, District, Regional and National level together with a site visit and review meeting with NEMC. The project area has no human habitation, farming, grazing or reserves. Widespread support for the development of the project has been received from all stakeholders.

An application for an Environmental Permit for the Tees Valley refinery is being prepared and will be lodged with the UK Environment Agency shortly, with approvals expected during 2017.

Licences and Approvals

The Ngualla Project is owned 100% by Tanzanian registered PR NG Minerals Limited, the holder of the granted Tanzanian Prospecting Licence PL6079/2009 which encompasses the area of the planned mine and multi stage processing plant development. Peak Resources Limited is developing the Ngualla Project with co-investors Appian Natural Resources Fund and IFC, a member of the World Bank Group whereby Appian and IFC have an effective combined 25% interest in PR NG Minerals on an 80:20 split. Peak holds the remaining 75% interest in PR NG Minerals.

The Environmental Certificate and Feasibility Study now received and completed are key documents required for an application for a mining licence, which the Company aims to finalise during the second quarter of 2017.

Peak, through its majority owned subsidiary Peak African Minerals has agreed an option fee to secure the right to purchase the refinery site in Tees Valley in the UK. A Planning Application for the Tees Valley refinery in the UK has been lodged with the local authority (the Redcar and Cleveland borough council) and approval is expected during the third quarter 2017.

For and on behalf of Peak Resources Limited.

Darren Townsend
Managing Director

Competent Person's Statements

The information in this announcement that related to Ore Reserves is based on information compiled by Ryan Locke, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy. Ryan Locke is a Principal Consultant and is employed by Orelogy Mine Consulting Pty Ltd, an independent consultant to Peak Resources. Ryan Locke has sufficient experience that is 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'. Ryan Locke consents to the inclusion in this announcement of the maters based on his information in the form and context in which it appears.

The information in this announcement that relates to the Mineral Resource Estimates is based on work conducted by Rod Brown of SRK Consulting (Australasia) Pty Ltd, and the work conducted by Peak Resources, which SRK has reviewed. Rod Brown takes responsibility for the Mineral Resource Estimate. Rod Brown is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration, and to the activities undertaken, to qualify as Competent Person in terms of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 edition). Rod Brown consents to the inclusion of such information in this announcement in the form and context in which it appears.

The information in this announcement that relates to Exploration Results is based on information compiled and/or reviewed by Dave Hammond who is a Member of The Australasian Institute of Mining and Metallurgy. Dave Hammond is the Technical Director of the Company. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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". Dave Hammond consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

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

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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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.*	The database compiled by Peak for the Ngualla Project contains 860 drill holes, totalling over 43 km of drilling, and comprises diamond coring (DD), reverse circulation (RC), and aircore (AC) drilling. The drill hole dataset considered for mineral resource estimation comprised a total of 32 DD holes (3,105.8 m), 320 RC holes (30,139 m), and 297 AC holes (5,541 m). Geochemical data for 20,403 samples were used in the resource estimation study. Holes outside of the resource study area were not retained in the resource estimation dataset. Diamond core samples were collected over a nominal interval length of 2 m within lithological units and core run blocks. Quarter core samples were submitted for geochemical testing. The RC and AC samples were collected over 1 m intervals. A 3-tier riffle splitter was used to split and combine adjacent samples to form 2 m composite, with a 2 kg split submitted for laboratory testing. The total lengths of all drill holes were sampled and submitted for assaying. Sample preparation and assaying procedures are described below.
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.).*	The diamond core samples were collected using PQ3 coring equipment in the weathered material and HQ3 equipment in fresh material. A rod length of 3 m was used. Because of the weathered nature of the host rock and the disseminated nature of the mineralisation, it was not considered possible or necessary to orient the core. The RC samples were collected using track mounted rigs equipped with 5.5" face sampling button bits and 3 m rods. The aircore samples were collected using a 5" aircore blade bit and 3 m rods.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *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.*	Diamond core samples were collected using triple-tube coring equipment. The drilling was performed in short runs and at slow rates to maximise core recovery. The runs were marked and checked against the drillers' core blocks to ensure any core loss was recorded. The average core recovery was approximately 97% for fresh material and 87% for colluvium and weathered material. For the RC programs, a face sampling bit was used to improve recovery and reduce contamination. Each sample was weighed, with the weight compared to the theoretical weight estimated from the hole diameter and expected density. The drill rods were air flushed after each sample to minimise contamination. The moisture content of the RC sample was qualitatively logged and recorded. A number of studies were conducted to assess whether there was any relationship between recovery and grade, with no significant correlation identified. Material from the drill return and cyclone overflow were periodically collected and assayed, and good correlation with the primary sample grades was observed. A number of DD and RC twinned holes were drilled. Close lithological and grade correlation was observed between the twinned datasets, with no evidence of significant differences that may indicate issues with one or both of the sampling methods.
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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* • *The total length and percentage of the relevant intersections logged.*	All DD and RC intervals were geologically logged, with information pertaining to lithology, mineralogy, weathering, and magnetic susceptibility collected and recorded. RC sample weights were recorded. DD recovery relative to drill length was recorded. Rock quality designation (RQD) was measured and recorded for DD intervals. Because the DD cores were not oriented, structural orientation data were not recorded. The logging datasets comprised a mix of qualitative (lithology, weathering, mineralogy) and quantitative (RQD, magnetic susceptibility, recovery) information. The remaining three-quarter core pieces were returned to the core trays and stored for reference or subsequent testing. A small amount of material from each 1 m RC sample was collected and stored in chip trays. All core samples and chip trays were photographed. Logging was performed on the full length of each hole, with the level of detail considered appropriate to support mineral resource estimation studies.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.*	RC chip samples were collected from each 1 m interval using a standalone 3-tier riffle splitter configured to give a 1/8 split. A scoop was used to collect an equal-sized portion from adjacent samples, which were combined to produce 2 m composites. Replicate samples were collected to confirm that scooping did not introduce significant bias or precision issues. Core samples were terminated at lithological contacts and at the end of each core run (which were marked by core blocks) or at 2 m intervals within lithological units. The cores were longitudinally split using a core saw for fresh material and a knife for weathered material, with quarter-core samples submitted for assaying. Peak has established a set of quality assurance (QA) protocols, which include the collection and insertion of field duplicates and certified reference samples into the sample stream prior to submission to the laboratory. Coarse crushed blanks are inserted by the laboratory prior to sample preparation. The QA samples are inserted at random, but at a frequency that averages 1:30 for each type. Twinned DD and RC datasets were examined to confirm that the sample collection procedures had not resulted in significant bias or precision issues. The QA data do not indicate that there are any significant issues with the weight/ particle size combinations used for sample preparation.
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.* • *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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	A 150 g pulp from each sample was submitted to SGS, Perth, for assaying using fused bead XRF and pressed powder XRF (Ta only) for the major metal suite, and a 4-acid digest and ICP-MS for the trace metal suite. All three methods are widely used in the industry, and considered appropriate for these constituents. The element suite for each method comprised: Fused Bead XRF: Al, Ba, Ca, Ce, Cr, Cu, Fe, K, La, Mg, Mn, Na, Nb, Nd, Ni, P, Pb, S, Si, Ti, Zn and Zr. Pressed Powder XRF: Ta. ICP-MS: Dy, Er, Eu, Gd, Ho, Lu, Pr, Sc, Sm, Tb, Tm, U, Th, Y and Yb. No geophysical tools have been used to determine element grades for mineralisation at Ngualla.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		Laboratory performance was monitored using the results from the QA samples inserted by Peak (see above). The Standards consist of certified reference materials (CRMs) for Ngualla mineralisation prepared by Geostats Pty Ltd (Perth). Inter-laboratory checking of analytical outcomes was routinely undertaken to ensure continued accuracy and precision by the primary laboratory. SGS conducted regular checks on the sizing of the pulps provided by ALS to ensure that they had been pulverised to the required specifications. Batches that did not meet specification were re-pulverised. All QA data are stored in the Ngualla database and regular studies were undertaken to ensure laboratory performance was within acceptable levels of accuracy. The QA studies confirm that accuracy and precision are within industry-accepted limits.
Verification of sampling and assaying	• *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.*	Significant intersections were verified by alternative Peak personnel, and SRK undertook some spot-checking of intervals during the site visit. An RC twinned hole exists for each DD hole, and comparisons between the two datasets indicate the pairs generally show very good lithological and grade correlation. Primary data were handwritten onto pro-forma logging sheets in the field and then entered into Excel spreadsheets at the Ngualla site office. The spreadsheets include in-built validation settings and look-up codes. Scans of original field data sheets are digitally stored and secured. The data entered into the spreadsheets are reviewed and validated by the field geologist before being imported into a secure central database, managed by Geobase Australia. Data collection and entry procedures are documented, and all staff involved in these activities are trained in the relevant procedures. With the exception of setting grades recorded as below detection to half the detection limit in the extracts used for mineral resource estimation, no adjustments to any 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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	The spatial data for Ngualla are reported using the ARC 1960 UTM, Zone 36S coordinate system. Drill collars were surveyed using a RTK GPS, Base Receiver and Rover Receiver by professional contract surveyors.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		Downhole surveys were completed during drilling using an electronic single-shot downhole camera, with readings taken at a nominal interval of every 40 m down all DD holes and RC holes. The elevation for each drill hole collar was adjusted to the elevation of a laterally coincident point on the topographic surface derived from a LiDAR survey flown for Peak by Digital Mapping Australia Pty Ltd in 2012. The LiDAR data have a reported accuracy of 10 cm in elevation and 15 cm north and south.
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.*	The nominal drill hole spacing is 40 x 50 m in the Bastnaesite Zone (see definition below). Trial Grade Control drilling on a 10 x 10 m grid has been performed in two areas. The drilling spacing is considered sufficient to demonstrate a level of confidence in lithological and grade continuity that is commensurate with the classifications applied to the mineral resource estimates. Variographic studies indicate grade continuity ranges of several hundred metres for the majority of the domains. 1 m RC drill samples were combined in the field to form 2 m composite samples for final assay submission; 2 m composites are considered adequate for resource estimation and for the definition needed for the likely mining techniques for this style of mineralisation.
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.*	The local karstic and magmatic structures display a variety of orientations and most of the drilling has been conducted on east-west traverses with holes angled 60° to the west. This orientation is considered suitable for the dominant mineralisation orientations. The aircore holes, which target the SWA colluvium, are all vertical. No orientation-based sampling biases have been identified, or are expected for this style of mineralisation.
Sample security	• *The measures taken to ensure sample security.*	The chain of custody of samples is managed by Peak. The samples are kept in sealed bags at an onsite storage facility prior to being trucked to the ALS laboratory in Mwanza by Peak personnel. The Mwanza laboratory checks the received samples against the sample despatch forms and issues a reconciliation report. Following sample preparation, the pulp samples are transported to SGS, Perth, by DHL air freight.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	Hellman & Schofield (H&S) and SRK have each audited Peak's sampling, QAQC, and data entry protocols and considered the procedures to be consistent with industry best practice, and the data of sufficient quality for resource estimation.

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 mineralisation lies wholly within the Tanzanian Prospecting Licence PL6079/2009. The licence is 100% owned by PR NG Minerals Ltd. Peak is developing the Ngualla Rare Earth Project with co-investors Appian Natural Resources Fund and IFC, a member of the World Bank Group whereby Appian and IFC have an effective combined 25% interest in PR NG Minerals on an 80:20 split. Peak holds the remaining 75% interest in PR NG Minerals. Appian and IFC have together been granted a total combined 2% Gross Sales Royalty. There is no habitation or farming on the mineralised area and there are no wilderness, historical sites, national parks or environmental settings. The licence is current and in good standing and there are no known impediments to obtaining a licence to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	No systematic exploration for rare earths or barite had been undertaken at Ngualla prior to Peak Resources acquiring the project in 2009. Limited reconnaissance exploration and surface sampling for phosphate had been undertaken by a joint Tanzanian-Canadian university based non-government organisation in the early 1980s.
Geology	• *Deposit type, geological setting and style of mineralisation.*	Rare earth and barite mineralisation at Ngualla is magmatic in origin and hosted within the core of the Ngualla Carbonatite. Mineralisation has been residually enriched in the oxide zone at surface through weathering and the removal of carbonate minerals to variable depths of up to 140 m vertically. High-grade rare earth mineralisation is hosted within the iron oxide and barite-rich weathered zone and above an irregular karstic surface, referred to as the Weathered Bastnaesite Zone.

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*
		The drill hole plan in Figure 2 illustrates the distribution of drilling over the Mineral Resource block model coloured by total rare earth oxide (REO) grade to illustrate trends of mineralisation.
		No new exploration results are reported in this release. Previous results are included and reported in earlier reports.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	○ *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.*	REO grade is reported as 'total rare earth oxide' (REO), which is calculated as the sum of the individual 14 rare earth oxides plus yttrium, as shown in Tables 3 and 4 of this document. Table 7 shows the average distribution of individual rare earth oxides within the +1% REO Weathered Bastnaesite Zone. These ratios are consistent throughout the mineralisation. Barite concentrations were derived from the modelled BaO grades, which were estimated using the Ba grades included in the laboratory datasets. The massive and consistent nature of the rare earth mineralisation at Ngualla and the resulting uniform grade distribution does not require the statement of any higher grade intervals when using a 1% REO lower cut-off grade. No metal equivalents are reported in the intersection table.
Relationship between mineralisation 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').*	Ngualla's rare earth mineralisation occurs as a thick horizontal blanket developed over an irregular karstic surface that has both vertical and horizontal form, and is developed on a vertical primary magmatic fabric and therefore there are both horizontal and vertical controls. Drilling reported is all at 60° to the west to best intersect both the vertical and horizontal components. All reported intersections are downhole lengths.
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 new discovery is being reported. ASX Announcement "Higher grade Ngualla Mineral Resource estimate contains nearly 1 million tonnes rare earth oxide" of 22 February 2016 contains plans and sections of the Mineral Resource. The drill hole plan in Figure 2 illustrates the distribution of previous and 2015 drilling over the Mineral Resource block model.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
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.*	The accompanying document is considered to represent a balanced report. The Mineral Resource estimate includes all available data and gives a balanced view of the grade and tonnage of the Mineral Resource estimate for the reported cut-off(s) and material types. Reporting of grades is done in a consistent manner. All previous significant intersections have been fully reported in previous releases. No new exploration results are reported in this release.
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.*	Density measurements were collected for the full range of lithologies and weathering overprints at Ngualla and were found to range from 1.70 g/cm^3 to 2.96 g/cm^3. Multi-element assaying is carried out on all samples, including for potentially contaminating elements to the hydrometallurgical leach recovery process, such as calcium, magnesium and phosphate, and radioactive elements such as uranium and thorium. The Bastnaesite Zone, comprising high-grade weathered mineralisation that is efficiently treatable by a beneficiation and acid leach recovery process developed and developed by Peak, is well defined and identified by mineralogical testwork, geological logging and geochemistry. No significant levels of contaminating or deleterious elements have been detected within this zone. The average uranium and thorium levels in the +1% REO Weathered Bastnaesite Zone are very low, at 15 ppm and 54 ppm respectively. Other exploration data are not considered material to this document at this stage.
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.*	No further drilling or sampling is planned. The mineralisation is consistently defined at a 40 x 50 m drill spacing over the extent of the Weathered Bastnaesite Zone (Figure 2). A Bankable Feasibility Study (BFS) on the Ngualla Rare Earth Project is released concurrently with this report. Future work will involve the sales and marketing of future products and the financing of the Project. Grade control drilling will be required for local estimation during mining.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in Section 1 and where relevant in Section 2, also apply to this section.)

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	The drill hole data for the Ngualla Project is stored in a secure central database managed by Geobase Australia. All assay and survey data loading was via electronic transfer from checked primary data sources. Geological logging and sample data are handwritten and entered into spreadsheet. Field data are entered into project-specific password-protected spreadsheets with in-built auto-validation settings. The spreadsheet data are imported into the central database after a validation process. The import scripts contain sets of rules and validation routines to ensure the data are of the correct format and within logical ranges. The Ngualla data were provided to SRK as extracts in Access and Excel tables as direct exports from the central database. The datasets were checked by SRK for internal consistency and logical data ranges prior to using the data for mineral resource estimation.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	In August 2015, the Competent Person visited the Ngualla Project site to inspect the local geology, and discuss aspects of data acquisition and deposit geology with site personnel. The visit provided the opportunity to observe RC and DD core drilling operations, sample handling and preparation practices, and bulk density testing procedures. The sample preparation laboratory in Mwanza was also inspected, and no significant issues were identified.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	The main controls on mineralisation were interpreted by Peak in plan and section and linked to form a 3D geological model. The geological interpretation is considered consistent with drilling and mapping data, and with site observations. The interpreted setting is also consistent with the generally accepted understanding within the mining community for this style of mineralisation. Lithology definition was primarily based on a combination of geological logging and geochemical data, with boundaries typically corresponding to distinct changes in physical and geochemical characteristics. Because the main mineralisation is contained within a karstic host, domain geometry is complex in places, and the irregular weathering profile has a significant impact on grade and lithological continuity.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		High-grade rare earth mineralisation is hosted within the iron oxide and barite-rich weathered zone and above an irregular karstic surface, referred to as the Weathered Bastnaesite Zone. For modelling purposes, upper grade thresholds of 0.69% P_2O_5 and 13.99% CaO have been used to assist with the definition of Weathered Bastnaesite Zone Mineral Resource subset reported, which has been found through test work to be most amenable to the current metallurgical extraction process. For validation purposes, SRK prepared an independent model using a lithological indicator approach. Acceptable correlation with Peak's sectional interpretation was observed.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	As described in Section 1, the mineralisation is hosted within and upon a carbonatite pipe, with elevated REO concentrations occurring both within the carbonatite, and in the colluvial cover material. For resource modelling, a total of six separate estimation domains were defined in the SREZ and three domains in the SWA. The SREZ covers an area of approximately 1.5 km^2, with the following lithologies variably distributed over these areas: • Colluvium covers approximately 40% of the area, and has an average thickness of 8 m, but in places exceeds 60 m. • Low calcium weathered carbonatite occurs in approximately 25% of the area, and has an average thickness of 36 m, and a maximum thickness of 150 m. • High calcium weathered carbonatite occurs in approximately 25% of the area, and has an average thickness of 29 m, and a maximum thickness of 105 m. • Fresh carbonatite has been intersected in approximately 85% of the area, with an average modelled thickness of 88 m, and a maximum modelled thickness of 215 m. • Weathered ultramafic occurs in approximately 5% of the area, and has an average thickness of 35 m, with a maximum vertical interpreted thickness of 105 m. • Fresh ultramafic occurs in approximately 5% of the area, and has an average modelled thickness of 70 m, with a maximum modelled vertical thickness of 165 m. The SWA cover areas of approximately 2.3 km^2, with the following lithologies variably distributed over these areas: • Colluvium covers approximately 50% of the area, and has an average thickness of 12 m, and a maximum thickness of 70 m. • Weathered carbonatite was intersected in approximately 30% of the area, with an average intersected thickness or 9 m and a maximum of 65 m.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		• Fresh carbonatite was interpreted under the full extent of the SWA, but not included in the reported resources.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	The mineral resource estimates were prepared using conventional block modelling and geostatistical estimation techniques. A single model was prepared to represent the defined extents of the mineralisation in both the SWA and SREZ. The resource modelling and estimation study was performed using Datamine Studio 3, Supervisor, and X10. Kriging neighbourhood analyses (KNA) studies were used to assess a range of parent cell dimensions, and a size of 20 x 20 x 5 m (XYZ) was considered appropriate given the drill spacing, grade continuity characteristics, and the expected mining method. Sub-celling was applied to enable the wireframe volumes to be accurately modelled. Barite is a major mineral in the SREZ, and metallurgical studies have indicated that relatively pure barite reports to one of the ore processing waste streams. Peak considers that it is potentially economically viable to recover this material, and barite is included as a by-product in the resource statement. The lithology wireframes were used as hard boundary estimation constraints. The drill data showed evidence of CaO and MgO grade trending near the oxide/ fresh boundary within the SREZ, and a sub-domain was interpreted to limit grade smearing across this contact. Probability plots were used to assess for outlier values, and grade cutting was not considered necessary. The weathered SREZ dataset contains a small number of randomly distributed high CaO intercepts, which are thought to represent small slivers or boulders of unweathered carbonatite. Given this material will likely be excluded from the plant feed during mining, these samples were excluded from the estimation dataset and the local tonnages were factored accordingly to account for material loss. The parent cell grades were estimated using ordinary block kriging. Search orientations and weighting factors were derived from variographic studies. Dynamic anisotropic searching was used for the colluvium and SWA oxide domains. A multiple-pass estimation strategy was invoked, with KNA used to assist with the selection of search distances and sample number constraints. Extrapolation was limited to approximately half the nominal drill spacing. Local estimates were generated for 29 elements expressed in oxide form. These included the rare earth elements, the major gangue elements, and a suite of minor elements that may have processing or marketing implications.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		A complete list of constituents in included in the accompanying resource estimation summary. Model validation included: • Visual comparisons between the input sample and estimated model grades • Global and local statistical comparisons between the sample and model data • An assessment of correlation matrices comparing multi-element grade relationships in the input dataset and estimated model • An assessment of estimation performance measures including kriging efficiency, slope of regression, and percentage of cells estimated in each search pass • A check estimate using nearest neighbour interpolation. A previous estimation study was completed by H&S in 2013. The 2016 study covers the same parts of the deposit as the previous study, and broadly similar modelling approaches were used for both. The main differences between the two studies include minor changes to the geological model, and a small increase in the amount of drill data available for the current model. In addition, the variography, estimation parameters, estimation control, treatment of high CaO outliers, treatment of voids, density estimates, and classification were all independently determined for each study. A comparison of the 2013 and 2016 estimates is presented in the accompanying modelling summary. The relatively minor differences in grade and tonnage are primarily due to the use of revised density data, tighter estimation constraints, and the treatment of high CaO outliers in the 2016 model.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The resource estimates are expressed on a dry tonnage basis, and in situ moisture content has not been estimated. A description of density data is presented below.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	A total REO cut-off grade of 1% has been used for resource reporting. The Mineral Resource cut-off grades selected facilitate the comparison of the 2013 and 2016 estimates. Cut-off grades are based on assumptions made by Peak that are considered to be realistic in terms of considerations of long-term historical and predicted rare earth prices, processing and mining costs and the demand for the rare earth products. In the previous Mineral Resource statement, the estimates for the Weathered Bastnaesite Zone were stated at a 3% REO cut-off. Based on the results from recent mine optimisation studies, the cut-off grade has been set to 1% REO for all REO mineralisation.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		High-grade rare earth mineralisation is hosted within the iron oxide and barite-rich weathered zone and above an irregular karstic surface, referred to as the Weathered Bastnaesite Zone. For modelling purposes, upper grade thresholds of 0.69% P_2O_5 and 13.99% CaO have been used to assist with the definition of Weathered Bastnaesite Zone Mineral Resource subset reported, which has been found through test work to be most amenable to the current metallurgical extraction process. Barite is included as a by-product in the Mineral Resource statement. Metallurgical studies conducted by Peak have indicated that barite could be recovered as a by-product from one of the ore processing waste streams. Given that barite is expected to be only recovered from material that is processed as REO ore, the REO cut-off criteria have been used to define the barite resource quantities, and separate cut-off criteria for barite have not been applied.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	Mine planning studies conducted as part of the March 2014 PFS indicate the mineralisation will likely be exploited using conventional selective open pit mining methods, utilising small-scale hydraulic excavator mining and dump truck haulage. It is likely that limited blasting will be needed, and the blanket-style morphology of the main mineralised zones indicates that stripping ratios and ore loss and dilution are expected to be low. The expected selective mining unit size is 5 x 5 x 5 m. Mining dilution assumptions have not been factored into the resource estimates, but some allowance has been made for material loss due to voids and boulders and slivers of fresh mineralisation within the oxide zone.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	A metallurgical process consisting of three stages has been developed and demonstrated by Peak for the weathered Bastnaesite mineralisation. The process involves the initial concentration of rare earth minerals by flotation techniques, followed by a second stage of selective leaching and subsequent purification of the mineral concentrate, and then a final solvent extraction separation stage. Extensive and comprehensive testwork, including operation of pilot plants, has indicated the effective concentration, extraction, purification and separation of rare earths to produce a high purity product is technologically and economically feasible. A Bankable Feasibility Study has now been completed (simultaneous with the release of this report) on the process. The materials in other parts of the deposit consist of mineralisation styles that are similar to other known deposits for which effective metallurgical treatment processes have been developed. Peak has completed less rigorous metallurgical testwork to date on these

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		other styles of mineralisation; however, early stage baseline metallurgical testwork on these material types support the potential for their effective treatment. The metallurgical testwork has indicated that relatively pure barite reports to one of the waste streams, and it is considered that this may be recovered as a by-product on completion of further technical work.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	The deposit is contained within the approved lease boundary. Waste landforms are to be developed adjacent to existing landforms features to minimise environmental impact. An in-waste tailings landform is being designed for process residues to be stored within mine waste material in order to limit the footprint of the overall waste landform and reduce the requirement for additional mining. There is no evidence of acid rock drainage (ARD) due to the oxidised nature of the mineralisation, the carbonate rock host, and the absence of sulphide minerals. Approvals for process residue storage and waste dumps have not yet been sought. A Tanzanian regulatory Environmental Impact Assessment (EIA) has been completed for Ngualla and an Environmental Certificate for the Project issued in March 2017.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	The Ngualla density dataset contains 1,157 test results derived from samples acquired from 29 DD core holes, and representing 12 lithologies within the SREZ. Dry in situ bulk densities were determined using the calliper method, which entails oven-drying and weighing core pieces and estimating the volume from the measured diameter and length. Each sample was lithologically logged and the average density value for each lithology was assigned to intervals with the corresponding lithology code in the drill hole datafile. Ordinary kriging was then used to interpolate a density to each model cell in the resource model. The estimates are considered to represent the dry in situ bulk density of the material in each block. The density test procedure accounts for porosity and vugs within individual core pieces. Larger voids, which are common in karstic terrains, were accounted for by assigning an indicator value to drill hole intervals in which voids were encountered. The indicator values were then used to estimate the proportion (or probability) of the void space present in each parent cell, and the estimated block tonnages were factored accordingly.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*	The classifications have been applied to the resource estimates based on a consideration of the confidence in the geological interpretation, the quality and quantity of the input

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	• *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	data, the confidence in the estimation technique, and the likely economic viability of the material. The colluvial blankets are generally quite uniform in thickness, with good continuity evident between drill holes. The underlying carbonatite lithologies are characterised by the presence of numerous pinnacles and sinkholes which, although following a general regional trend, can be quite variable in terms of depth, width and persistence. Locally, this can result in significant uncertainty in the position of lithological contacts. However, on a regional basis, SRK considered that the drilling is sufficiently close-spaced that alternative interpretations would not result in significant tonnage differences. The variography studies indicate that grade continuity is quite well defined for most oxides, with low nugget values and ranges in the major continuity directions of up to several hundred metres. SRK considers that the available QA data demonstrate that the datasets used for mineral resource estimation are sufficiently reliable for the assigned classifications. The model validation checks show a good match between the input data and estimated grades, indicating that the estimation procedures have performed as intended, and the confidence in the estimates is consistent with the classifications that have been applied. Based on the findings summarised above, it was concluded that the main source of resource uncertainty is in the geological model. The confidence in the geological model is primary based on drill spacing, and therefore sample coverage is considered the controlling factor for resource classification. A boundary was interpreted approximately half the drill spacing beyond the extents of relatively uniform drill coverage and used to define the lateral extents of the resource. A classification of Measured Resource was assigned to the central regions where the drill coverage was close-spaced and uniform. A classification of Indicated Resource was applied to the peripheral areas where the sample coverage was regular but wider-spaced, and a classification of Inferred Resource was applied where the coverage became wide-spaced and fragmented.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	In 2016, Amec Foster Wheeler (AFW) completed an independent review of the Mineral Resource estimates, and advised that they were satisfied that the estimates are consistent with the JORC Code requirements, the classifications are reasonable, and the Mineral Resource provides a reasonable basis for Ore Reserves estimation. The model reviewed by AFW contained estimates for BaO but, at the time of the review, barite was not specified as a by-product.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The mineral resource estimates have been prepared and classified in accordance with the guidelines that accompany the JORC Code, and no attempts have been made to further quantify the uncertainty in the estimates. The largest source of uncertainty is considered to be related to the local accuracy of the geological interpretation. SRK independently checked the geology model using a significantly different interpretation approach, and observed relatively similar volumes. The comparison indicated that the manual interpretation is possibly slightly conservative. The mineral resource quantities should be considered as global and regional estimates only. The accompanying models are considered suitable to support mine planning studies, but are not considered suitable for production planning, or studies that place significant reliance upon the local estimates.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*	Refer to Table 1: Section 3. Ordinary Kriging estimated block model.
	• *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	Mineral Resources are reported inclusive of the Ore Reserves declared.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	A site visit to Ngualla was completed by Ryan Locke in October 2013.
	• *If no site visits have been undertaken indicate why this is the case.*	Site visits were completed
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.*	The mining study has been completed to a Definitive Feasibility level.
	• *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	An achievable and realistic mine plan has been generated based on robust pit designs utilising the outcomes of a comprehensive open pit optimisation process. The schedule has been financially modelled and generates significant value. The optimisation process included a full sensitivity analysis of input parameters to ensure the economic viability and robustness of the outcome.
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	A minimum cut-off grade of 1% REO was applied as part of the optimisation; however the Ore Reserve is based on a block-by-block multi-element value calculation within the model to determine the ore. The Reserve is based on the Measured and Indicated category material within the Weathered Bastnaesite Zone portion of the Ngualla Mineral Resource. Metallurgical testwork has shown high rare earth recoveries can be expected from this style of mineralisation using the metallurgical process demonstrated. A predictive mineralogical model has been developed using drill assays and lithological logging supported by mineralogical studies (XRD and QEMSCAN) and flotation testwork. As a result, cut-off grades and blending strategies have been defined around gangue elements of silicon, calcium, iron, phosphorus and aluminium to ensure predictable and optimal flotation performance as measured by the grade and recovery of rare earths to the concentrate.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*	Completion of a Whittle 4x optimisation including sensitivities analysis for: • +/-10%, +/-20%, Price • -10%, -20% Processing recoveries • +10%, +20%, +30% Mining costs • +/-10%, +/-20%, Processing costs • +/- 10° , +/-5° Slopes Completion of a detailed staged mine design and mine schedule.
	• *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.*	A conventional open pit mine method was chosen as the basis of the DFS due to the low strip ratio and the outcropping of ore at surface. A small scale mining fleet consisting of a single 140t excavator matched to 65t rigid bodied dump trucks was selected to ensure mining selectivity and dilution expectations could be achieved. However the fleet is also fit-for-purpose, is suitable for the steep terrain at Ngualla and is capable of meeting production requirements.
	• *The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.*	Geotechnical assessment has been completed by Golder and Associates, who provided recommended slope configurations. The slope parameters provided by Golder and Associates were applied within the mine design.
	• *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).*	Optimisation included only Measured and Indicated material types.
	• *The mining dilution factors used.*	Internal block dilution applied during reblocking phase to create SMU block size of 4mE by 4mN by 5mRL. No further dilution was applied as an "ore loss only" approach was used, with an ore loss applied to all edge blacks
	• *The mining recovery factors used.*	An ore loss factor of 25% was applied on a block by block basis to all ore blocks that were horizontally adjacent to at least one surrounding waste block. This resulted in a global 6% reduction to the mineralised resource. 100% mining recovery was applied within the optimisation software as the above ore loss "skin" was applied at the block model level to minimise dilution effects. Small scale mining fleet and low production rates help ensure mining selectivity and therefore ore loss targets can be achieved.
	• *Any minimum mining widths used.*	Designs and cutbacks designed to suit Caterpillar mining fleet consisting of a single 6015 excavator and 775G rigid bodied dump trucks. A minimum mining width of 40m was applied Two way ramp systems widths 23m Ramp gradient 10%

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	• *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*	No Inferred Mineral Resource has been included within the Ore Reserves. As Inferred Mineral Resource accounts for only 2% of the global resource indicates the project was not sensitive to the inclusion of Inferred Mineral Resources.
	• *The infrastructure requirements of the selected mining methods.*	The following infrastructure will be required and is included in the Capital estimate within the BFS: • 80km site access road • Administration buildings • HFO Power generation • Waste water treatment facilities • Water Catchment weirs and bore field • Accommodation village • Stores and maintenance facilities • Mineral Processing facilities
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*	The metallurgical process consists of three stages; beneficiation, leach recovery and product separation and refining via solvent extraction. Extensive test work has confirmed the process is effective in achieving high rare earth recoveries from the weathered bastnaesite mineralisation.
	• *Whether the metallurgical process is well-tested technology or novel in nature.*	The process stages are typical of those used within the rare earth industry; however they have been optimised to suit the unique Ore mineralogy at Ngualla. There are no novel process used within the flowsheet.
	• *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.*	The entire process has been extensively tested and verified by multiple laboratories Development test work was initially undertaken on composite intervals (100m total core length) from diamond core NDD007 within the Weathered Bastnaesite Zone. Verification testwork was subsequently undertaken on three drill holes and two trench samples from within the Weathered Bastnaesite Zone. The flow sheet was later confirmed by an additional laboratory on three trench samples from within the Weathered Bastnaesite Zone. Finally, a 60 tonne trench sample from multiple trenches within the weathered bastnaesite zone, representing the first five years of mill feed, was processed through a pilot plant to obtain recovery factors. A diamond drill program was conducted to provide two composites representing 0-5 years and 6-10 years of mill feed respectively. Testwork was undertaken on these composites to demonstrate the robustness of the flowsheet.
	• *Any assumptions or allowances made for deleterious elements.*	Uranium and thorium levels within the ore body average 14ppm and 55ppm respectively and are well below the level regarded by the International Atomic Energy Agency (IAEA) for the ore to be classified as radioactive

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		Waste material and product from the processing facilities will also be well below the levels regarded by the IAEA to be classified as radioactive. Uranium and thorium are monitored through the mining and processing processes. No other deleterious elements have been identified in the ore body
	• *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.*	A 60 tonne bulk sample from eight trenches within the weathered bastnaesite zone representing the first five years of mill feed was processed through a beneficiation pilot plant in 2015 to produce two tonnes of concentrate.
	• *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	Not applicable, products are refined rare earth oxides
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	Deposit is located in the Songwe Region of south west Tanzania and is contained within the approved Prospecting Lease boundary. All Waste mined from the Open pit will be utilised in the construction of the TFS facilities. There is no evidence of Acid Rock Drainage due to the weathered nature of the deposit, the absence of sulphide minerals and the carbonate host rock. An Environmental Certificate was been granted for the Ngualla Project in March 2017. Specific approvals for process residue storage and waste dumps have not yet been sought.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	Currently no site processing infrastructure has been constructed. All mine processing infrastructure is to be located within the approved Tanzanian prospecting lease PL6079/2009 boundary, located immediately to the east of the deposit. Power infrastructure will be constructed during plant development. Designs completed for TSF location and size requirements. No suitable accommodation camp is currently available. Accommodation camp and to be constructed. Detailed planning of site access roads completed by Peak. Current access tracks are unsuitable to support the operation, and require upgrade to all weather roads.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.*	Processing fixed Plant Capital estimates based on preliminary design data, process flow diagrams, piping and instrumentation diagrams and mass and energy balance. The majority of plant equipment, infrastructure and installation costs are based on direct quotes and remaining costs factored from equivalent projects. Mining capital based on quoted estimate from supplier on continent. Mining operating costs determined by first principle methods with equipment costs [provided by OEM's

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		Processing operating costs determined by detailed flow analysis and provided by lead engineering team.
	• *Allowances made for the content of deleterious elements.*	Uranium and thorium levels within the ore body are low, averaging 14ppm and 55ppm respectively and are well below the level regarded by the International Atomic Energy Agency (IAEA) for the ore to be classified as radioactive Waste material and product from the processing facilities will also be well below the levels regarded by the IAEA to be classified as radioactive. Uranium and thorium are monitored through the mining and processing processes. No other deleterious elements have been identified in the ore body
	• *The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co- products.*	The below Commodity prices were assigned to each Rare Earth Oxide (US$/kg) as provided by Peak based on a review by Peak of a range of forecasts by respected independent industry analysts available at the time of optimisation. • La_2O_3 - $5.13 • CeO_2 – $4.69 • Pr_6O_{11} – $60.00 • Nd_2O_3 – $60.00 • Sm_2O_3 - $50.00 • Eu_2O_3 - $50.00 • Gd_2O_3 - $50.00 • Tb_4O_7 - $50.00 • Dy_2O_3 - $50.00 • Ho_2O_3 - $50.00 • Er_2O_3 - $50.00 • Tm_2O_3 - $50.00 • Yb_2O_3 - $50.00 • Lu_2O_3 - $50.00 • Y_2O_3 - $50.00
	• *The source of exchange rates used in the study*	All cost estimates are in USD.
	• *Derivation of transportation charges.*	Based on road haulage cost estimate, includes road transport quotations from haulage companies from Ngualla site to Dar es Salaam port and product export handling costs.
	• *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.*	Mineral processing operating costs based on Bankable Feasibility Study estimation of fixed and variable costs. Design of the final processing through the solvent extraction and calcination circuit ensures product specifications are met. No penalties for failure to meet product specification have been included.

CRITERIA	JORC CODE EXPLANATION	COMMENTARY	
	• *The allowances made for royalties payable, both Government and private.*	Allowance of an effective 3.3% Royalty applied to the FOB price.	
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*	Head grade based on regularised block model and included allowance for ore loss. Commodity prices defined above. Exchange rate – all prices based on USD. Processing costs include treatment changes to product refined product. Transportation charges include as selling cost within Whittle optimisation.	
	• *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	Commodity price assumptions as defined above.	
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.*	Two key elements of the deposit are Neodymium and Praseodymium, which have been identified as Critical elements with supply shortages expected into the future. Output production levels have the potential to be increased to meet market demand.	
	• *A customer and competitor analysis along with the identification of likely market windows for the product.*	High demand for the key elements contained within the deposit within the permanent magnet, electric vehicle, green energy generation and digital technologies markets. It is estimated that China controls ~85% of the global supply of rare earths.	
	• *Price and volume forecasts and the basis for these forecasts.*	~8Kt of Rare Earth product intended to be produced on an annual basis to minimise impact on market supply.	
	• *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	Ngualla's products are not industrial minerals but are refined rare earth oxides	
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*	Revenue assumed is based on commodity prices specified above, and include 3.3% local government royalty. Costs estimated to a +-10% level of accuracy. No inflation has been applied. All inputs completed in US dollars. 10% discount rate applied within the BFS. A detailed financial model and associated cost estimate was developed internally by Peak and the project financials detailed in this document are sourced from this model. Short payback period of 5 years after start-up.	
	• *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	NPV Sensitivity Ranges to input assumptions Mining Cost +30% Processing Recovery -10% Processing Cost Site 1 -20% Processing Cost Site 1 +20% Processing Cost Site 2 -20% Processing Cost Site 2 20% Price -20% Price 20%	 NPV -3% NPV -40% NPV 17% NPV -20% NPV 19% NPV -21% NPV -80%

CRITERIA	JORC CODE EXPLANATION	COMMENTARY	
		Slopes -10° Slopes +10°	NPV 78% NPV -2% NPV 0%
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	There are no local housing, farming or villages located within the proposed mining area. The Environment and Social Impact Assessment included stakeholder consultation and has been completed with strong support registered from all stakeholders, providing the social license to operate.	
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves.*		
	• *Any identified material naturally occurring risks.*	As the Ngualla site is located relatively close to the equator, extreme rainfall events may be a risk to the operation during the wet season, December – April. The relatively low mining production rates allow for sufficient time during these months. Multiple mining faces will be open at any one time giving several options, thereby reducing risk of the impact of high rainfall events. Extreme weather conditions may impact the logistical side of the operation with the land haulage of products to and from the Dar es Salaam port facilities. Roads have been designed to allow for year round access to site including during extreme rainfall events.	
	• *The status of material legal agreements and marketing arrangements.*	n/a	
	• *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	Reserve contained within the Tanzanian prospecting licence PL6079/2009. The Prospecting License is in good standing with the relevant government authority There are no known impediments to obtain a license to operate in the area. An Environmental and Social Impact Assessment has been completed and approved by Tanzanian authorities, with an Environmental Certificate (EC) granted for the mine, processing plant and access road project on 7 March 2017. The EC, together with a Feasibility Study, will allow Peak to now move forward and apply for the required mining licence to operate the project, which may be expected to take from 3 to 6 months to be granted from the date of application. If a Special Mining Licence is required for the project, a Mine Development Agreement may be negotiated with the Tanzanian government, the conditions of which may include a free carried interest, which is not accommodated or factored into the current Study due to the uncertainties and unknowns in this regard.	
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.*	Directly from the Mineral Resource classification. The result appropriately reflects the Competent Person's point of view of the deposit. No Probable Reserves are derived from Measured Mineral Resource.	

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	• *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	An internal review of the Ore Reserve has been completed by Orelogy.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*	Orelogy are confident that the accuracy of the parameters are within BFS limits. The ore reserve is robust at a range of parameters where there is little change in the pit shape & size changes. However, the value of the project is sensitive to gross changes in the overall price of the product elements.
	• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*	Model and estimates are global. Grade control drilling and estimation is required for local estimates at pre-production stage.
	• *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.*	Future metals pricing uncertainty will have the greatest effect on the Ore Reserve, as shown within the optimisation. The pit shape is not sensitive to price, however cashflow is significantly impacted.
	• *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	There has been no production data to date.