PEAK RESOURCES LIMITED

ASX Announcement

22nd February 2016

Higher grade Ngualla Mineral Resource contains nearly 1 million tonnes rare earth oxide

Highlights

- The Mineral Resource for the Bastnaesite Zone weathered mineralisation is:

  19.9 million tonnes at 4.90% rare earth oxide (REO)*, for 980,000 tonnes of contained REO# at a 3% REO lower grade cut-off

- The new estimate represents an **8% percent increase in grade** over the previous estimate completed in 2013
- The higher grades are expected to contribute to **reduced production costs**
- The Bastnaesite Zone weathered Mineral Resource is well defined with **98% classified in the Measured or Indicated JORC Resource Categories**, with the majority (89%) being Measured
- Ngualla has the highest magnet metal (neodymium and praseodymium) grades of any rare earth development project in the world
- The bastnaesite rare earth and host rock mineralogy and extremely low levels of uranium and thorium are additional distinct advantages for processing over other rare earth projects
- The higher grade Mineral Resource model will be incorporated into the Project Update scheduled for completion in the first half of 2016

Details

Peak Resources Limited ("**Peak**" or "**the Company**"; ASX Code: **PEK)** is pleased to announce a revised Mineral Resource estimate for the Ngualla Rare Earth Project in Tanzania. The new estimate completed by SRK Consulting incorporates information from additional drilling completed in 2015 and is reported in accordance with the JORC 2012 Code and Guidelines.

The Bastnaesite Zone weathered mineralisation is the high grade, near surface central portion of the greater Ngualla Mineral Resource that is amenable to lower cost processing and targeted for production in the initial 30+ years of the operation^ and beyond.

Darren Townsend, Peak's Managing Director commented: *"This high quality Mineral Resource and its favourable mineralogy is a fundamental starting point and provides Ngualla with unique processing advantages and drives the project's low capital and operating costs. We look forward to bringing together the series of improvements Peak has made to the project since the Preliminary Feasibility Study (PFS) of March 2014 in the Project Update scheduled for release during the first half of this year."*

^ ASX Announcement 'Peak Resources Delivers Robust PFS for Ngualla' of 19 March 2014. * total rare earth oxides plus Y2O3. # see Tables 1 and 2 for classification of Mineral Resources.

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Technical Report

A new Mineral Resource estimate has been completed by specialist consultants SRK Consulting (Australasia) Pty Ltd (SRK) to incorporate the 2,365m of additional infill reverse circulation (RC) and 623m of diamond drilling completed in the resource area during 2015.

The 2015 drilling was completed to infill two areas of high grade, near surface rare earth mineralisation previously defined by relatively wide spaced drilling, provide additional core samples for metallurgical testwork and to complete two trial grade control test patterns (Figures 1 and 2).

The Mineral Resource estimates are classified in accordance with the 2012 edition of The Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012).

The Bastnaesite Zone weathered Mineral Resource estimate

The Ngualla rare earth deposit contains several styles of mineralisation in terms of rare earth and host rock mineralogy. The large size of the deposit allows Peak to select only the most favourable style of mineralisation for development during the first decades of the projects life.

The weathered Bastnaesite Zone mineralisation allows for a less complex metallurgical process and drives Ngualla's lower capital and operating costs compared to other rare earth development projects (ASX Announcement 'Peak Resources Delivers Robust PFS for Ngualla' of 19 March 2014).

Located at the geological core of the Ngualla Carbonatite (Figure 1), the weathered Bastnaesite mineralisation consists of highly weathered ferruginous bedrock, gravel and ferricrete. Rare earths are contained within the fluorocarbonate mineral bastnaesite within an iron oxide rich host rock with barite and quartz. The weathered Bastnaesite Zone mineralisation is also defined as containing less than 10% calcium and very low phosphorous of less than 0.3%.

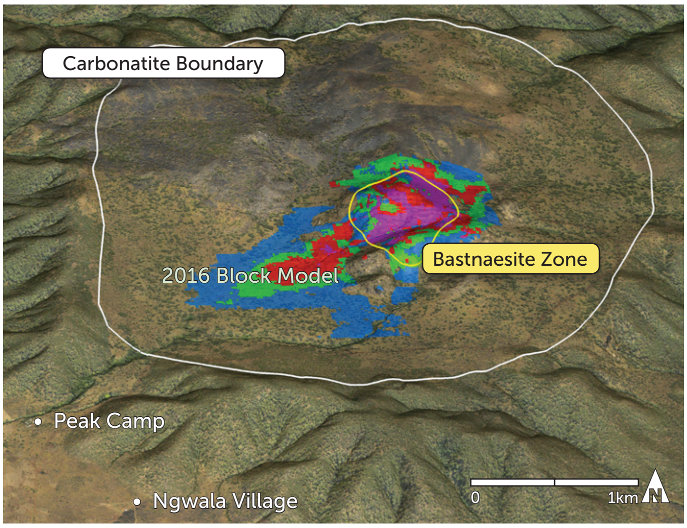

Figure 1: Oblique view looking north of the Ngualla Carbonatite and total All Resources Ngualla Mineral Resource block model coloured by REO grade.

The Mineral Resource estimate for the weathered Bastnaesite Zone rare earth mineralisation at a 3% REO lower grade cut is:

19.9 million tonnes at 4.90% REO*, for 980,000 tonnes of contained REO#

see Table 1 for classification of Mineral Resource and Table 3 for breakdown of individual rare earth grades and relative distributions as a proportion of total REO.

Table 1: **Ngualla 2016 and 2013 Mineral Resource Summaries** – weathered Bastnaesite Zone >=3% REO* (WBZ)

Lower cut-off grade	JORC Resource Category	2016 WBZ Mineral Resource Summary			2013 WBZ Mineral Resource Summary		
		Tonnage (Mt)	REO (%)	Contained REO tonnes	Tonnage (Mt)	REO (%)*	Contained REO tonnes
3.0% REO	Measured	17.9	4.88	870,000	19	4.53	840,000
	Indicated	1.7	5.14	90,000	2.9	4.62	140,000
	Inferred	0.4	4.84	20,000	0.11	4.10	4,000
	TOTAL	**19.9**	**4.90**	**980,000**	**21.6**	**4.54**	**982,000**

*The weathered Bastnaesite Zone Mineral Resource >=3% REO is contained within and is a subset of the total All Resources Ngualla Mineral Resources >=1% REO. See Table 3 for breakdown of individual rare earth grades and relative distributions as a proportion of total REO. Figures may not sum due to rounding. The 2013 estimate was reported according to the 2004 JORC Code and Guidelines, further details are described in ASX Release 'Increased Resource Estimate To Improve Ngualla Project Economics' of 4 April 2013.

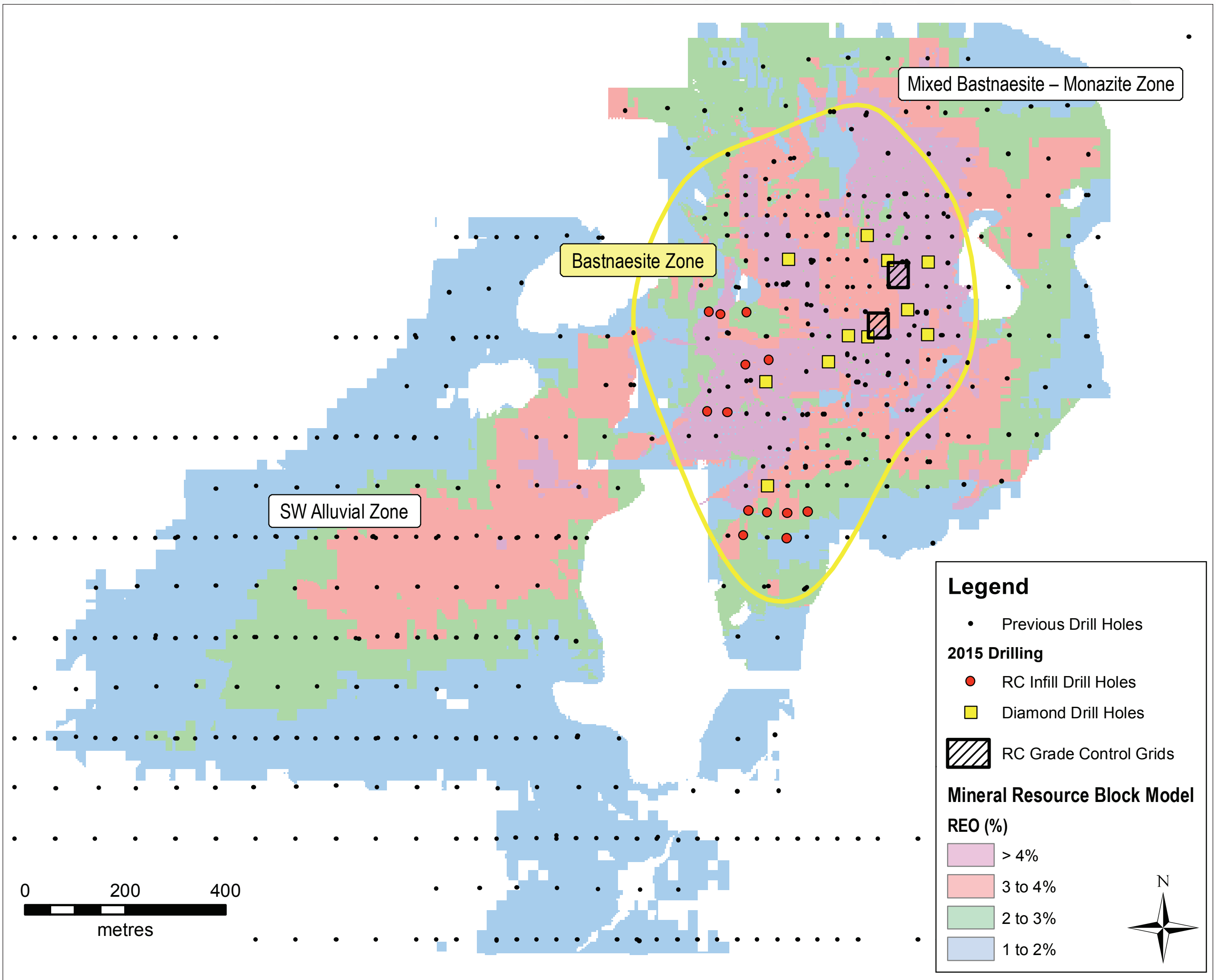

Figure 2: The distribution of previous and 2015 infill drilling over the 2016 Mineral Resource block model.

The new Mineral Resource for the weathered Bastnaesite Zone represents an **8%** increase in grade over the previous 2013 estimate of 4.54% REO (see Table 1 for comparison of the 2016 weathered Bastnaesite Zone Mineral Resource with the previous 2013 estimate).

The average contents of uranium and thorium of 15ppm and 53ppm respectively are very low and a real advantage compared to other rare earth deposits that can have high levels of radioactive elements.

The weathered Bastnaesite Zone +3% REO Mineral Resource is high confidence and well defined, with 98% classified in the Measured and Indicated JORC Resource categories, and the majority (89%) being in the highest, Measured.

Opposite: Figure 3: Diamond core sample showing weathered bastnaesite mineralisation and the sharp karstic surface interface with mineralised fresh rock carbonatite.

Diamond core NDD006:

Weathered iron oxide- barite carbonatite containing high grade mineralisation, **3 to 8 % REO**.

Amenable to simple acid leach as majority of carbonate minerals removed through weathering.

Sharp karstic surface contact between weathered and fresh carbonatite.

Fresh carbonatite rock containing primary mineralisation **1.5 to 2.5% REO**.

The weathered Bastnaesite Zone rare earth mineralisation drives lower operating and capital costs through:

- High REO grades
- Mineralisation at surface (low mining strip ratio)
- Predominantly free dig
- Mineralogy allows for the efficient and effective processing route developed by Peak
- Naturally low content of acid consuming minerals (carbonate and phosphate) reduces reagent consumption
- Very low uranium and thorium

The high grade weathered mineralisation occurs from surface and extends to depths of over 140m. Grades are evenly distributed and the morphology of the mineralisation enables low cost open pit mining with very low strip ratios.

The absolute REO grade, and particularly the higher value, high demand magnet metals neodymium and praseodymium are the key value drivers for rare earth projects. As Figure 4 illustrates, Ngualla leads the pack in both overall REO grade as well as combined neodymium plus praseodymium grade.

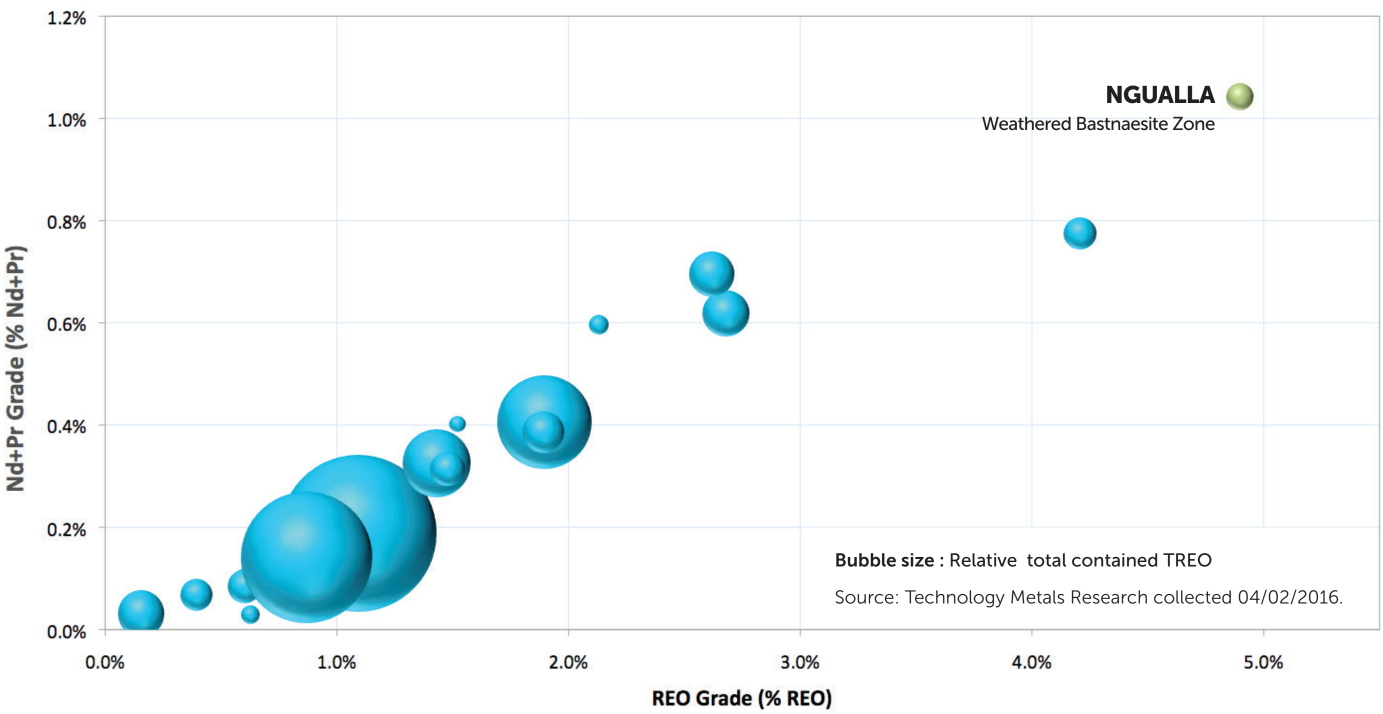

Figure 4: The weathered Bastnaesite Zone Mineral Resource has the highest neodymium-praseodymium and total rare earth grades of any of the rare earth development projects.

Comparison of the 2016 and 2013 total Ngualla All Resources estimates at +1% REO

The total Mineral Resource estimate for the Ngualla Project above a 1% REO cut-off is:

214.4 million tonnes at 2.15% REO*, for 4,620,000 tonnes of contained REO

* see Table 2 and Figure 5 for classification of Mineral Resource and Table 4 for breakdown of individual rare earth grades and relative distributions as a proportion of total REO.

The 2016 'All Resources' Mineral Resource estimate represents an increase of 10% in tonnes and 5% in contained REO over the previous 2013 estimate (see Table 2).

Ngualla remains one of the largest and highest grade rare earth deposits in the world.

Table 2: Ngualla 2016 and 2013 Mineral Resource Summaries – All Resources >=1% REO*

Lower cut-off grade	JORC Resource Category	2016 All Resources Summary			2013 All Resources Summary		
		Tonnage (Mt)	REO (%)	Contained REO tonnes	Tonnage (Mt)	REO (%)*	Contained REO tonnes
1.0% REO	Measured	86.1	2.61	2,250,000	81	2.66	2,100,000
	Indicated	112.6	1.81	2,040,000	94	2.02	1,900,000
	Inferred	15.7	2.15	340,000	20	1.83	380,000
	TOTAL	214.4	2.15	4,620,00	195	2.26	4,400,000

*The total All Resources Ngualla Mineral Resources >=1% REO includes and contains the weathered Bastnaesite Zone Mineral Resource >=3% REO shown in Table 1. Figures may not sum due to rounding. Individual rare earth distributions are shown in Table 4

The All Resources +1% REO Mineral Resource estimate comprises all styles of rare earth mineralisation, including the +3% weathered Bastnaesite Mineral Resource estimate JORC reported above.

Other styles of rare earth mineralisation in addition to the weathered bastnaesite include:

- mixed bastnaesite-monazite weathered mineralisation typically grading 2 to 5% REO that surrounds the central Bastnaesite Zone (see Figures 2 and 6) and
- fresh rock carbonatite hosted rare earth mineralisation grading 1.5% to 2.5% REO that lies beneath the high grade weathered Bastnaesite Zone mineralisation over a 900m x 600m area and remains open at depth beneath the current limit of drilling at approximately 140m from surface (Figure 6).
- mixed bastnaesite, monazite and cerianite rare earth mineralisation in an unconsolidated alluvial fan containing apatite and iron oxides up to 30m thick – the South West Alluvials (Figure 2).

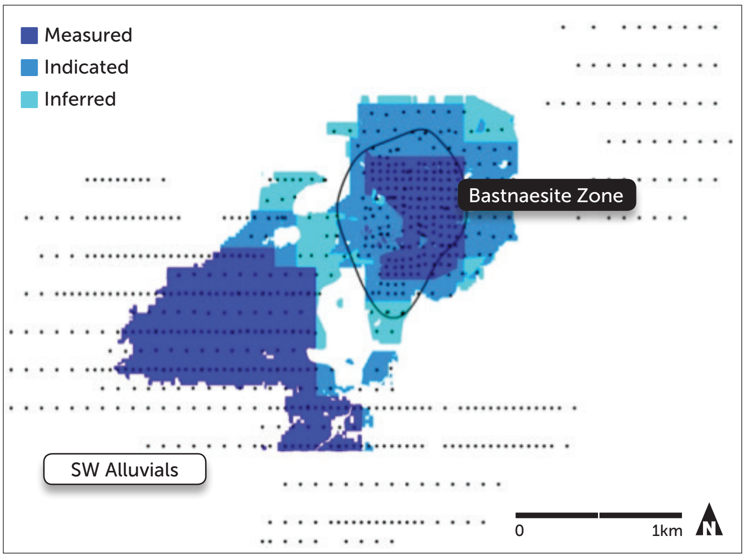

Figure 5: Plan view of Mineral Resource JORC Classifications at surface.

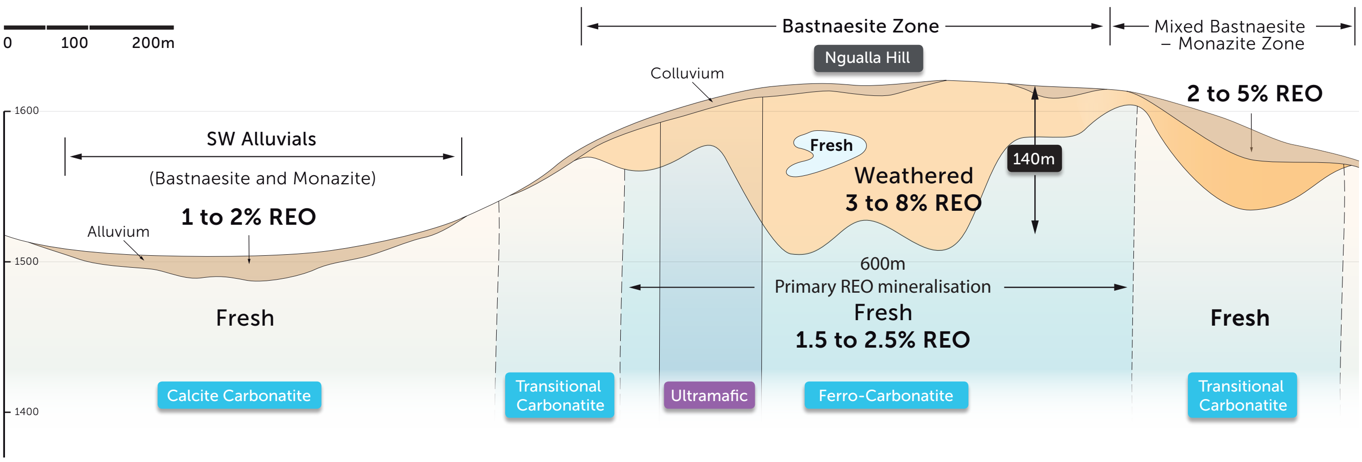

Figure 6: Schematic geological cross section across the central Ngualla Carbonatite showing styles of rare earth mineralisation.

Preliminary metallurgical testwork completed by Peak on a variety of samples included gravity, floatation and leaching processes, which provided encouragement in the potential to concentrate and extract rare earths from these additional styles of mineralisation. The long mine life supported by the weathered Bastnaesite Zone provides the Company with the opportunity and time to optimise these processes that could be brought in at a later stage in the life of the operation to develop the large tonnages of these styles of rare earth mineralisation available at Ngualla.

Summary of Material Information

Primary disseminated carbonatite hosted rare earth mineralisation grading 1.5 to 2.5% REO occurs at Ngualla within a central plug of ferroan dolomite composition within a 3.8km wide calcite carbonatite magmatic pipe (Figure 6).

An irregular karstic profile up to 140m thick is developed over the central parts of the carbonatite and has resulted in the residual enrichment of rare earths to grades of 3 to 8% REO through the complete removal of other carbonate minerals. Rare earths occur from surface almost exclusively as bastnaesite within a host rock of iron oxides, barite and quartz in this central weathered Bastnaesite Zone.

An outer zone of mixed monazite – bastnaesite weathered mineralisation typically 2.5 to 5% REO surrounds the central weathered Bastnaesite Zone and extends to the east and north (Figure 2).

Erosion of the insitu weathered mineralisation and subsequent deposition to the South West has resulted in the formation of a thick alluvial fan, the South West Alluvial Zone, which is up to 30m thick and typically grades ~3% REO. Minor mineralised ferricrete and pisolithic gravels occur across the surficial deposit types and in localised karstic fills up to several tens of metres deep. Rare earth minerals include predominantly bastnaesite and monazite with lesser cerianite.

A wireframe and solid geological model of the mineralisation has been developed based on geological mapping, airborne magnetic and radiometric survey data and cross sectional interpretations based on extensive reverse circulation ("RC") and diamond drilling completed by Peak since 2009.

A total of 38,786m of drilling from 649 drill holes has been included in the database used for the current estimate of Mineral Resources. This comprises 320 RC holes for 30,139m, 297 Aircore holes for 5,541m and 32 diamond holes for 3,106m. Twinned holes and trial grade control holes were used for geological interpretation and variography studies but were excluded from the final estimation. The deposit has been systematically drill tested by -60° west angled holes on east west section lines at a nominal spacing of 80m along section and 100m between sections, with the central Bastnaesite Zone infilled to 40m x 50m (Figure 2). Some holes are drilled in alternative directions to confirm the geological interpretation. A nominal spacing of 40m along section and 100m between sections was used in the South West Alluvials and drill holes are vertical. Diamond holes were drilled PQ3 from surface, changing to HQ3 when fresh rock was encountered. Aircore used a 5" blade bit and RC a 5.5" face sampling button bit.

Diamond core samples were collected on a nominal interval length of 2m within lithological units and core run blocks. Quarter core samples were submitted for analysis. The RC and Aircore samples were collected on 1m intervals. A 3 tier riffle splitter was used to split and combine adjacent samples to form a 2m composite, with a 2kg split submitted for laboratory analysis. Sample preparation was conducted by ALS at the Mwanza laboratory using an oven drying at 105°C, jaw crushing to p70 – 2mm and pulverising to P85 -75 µm. A 150g aliquot was split from each sample for geochemical testing. Entire drill hole lengths were submitted for assay.

Geochemical analysis was conducted by SGS, Perth, with an analytical suite of 38 elements determined using XRF (fused bead and pressed powder) and ICP-MS. The precision and accuracy of analytical results have been monitored by determinations on certified and internal standards as well as periodic checks through an alternate umpire laboratory (Ultra Trace, Perth). Laboratory and field blanks together with field and laboratory duplicate samples show the data from the primary laboratory are well constrained and laboratory and field practises and protocols are repeatable to a high degree of precision.

The Mineral Resource estimates were prepared using conventional block modelling and geostatistical estimation techniques. The modelling study was performed using Datamine Studio®, Supervisor® and X10®.

Kriging Neighbourhood Analysis (KNA) studies were used to assess a range of parent cell dimensions, and a size of 20m x 20m x 5m was selected as appropriate given the drill spacing, grade continuity characteristics and expected mining method. Sub celling was applied to enable wireframe volumes to be accurately modelled. Lithology wireframes were used as hard boundary estimation constraints. The parent cells were estimated using ordinary kriging. Search orientations and weighting factors were derived from variographic studies. Dynamic anisotropic searching was used for selected domains. A multi-pass estimation strategy was invoked, with KNA used to assist with the selection of search distances and sample number constraints. Extrapolation distances beyond the outermost holes were limited to approximately half the nominal local drill spacing. Local estimates were generated for a total of 29 elements expressed in oxide form, including rare earth oxides of economic interest, the major gangue elements and a suite of minor elements that may have processing or marketing implications.

Peak has completed a high level of metallurgical evaluation on the weathered Bastnaesite Zone rare earth mineralisation, including the development of a bespoke three stage process flowsheet and the successful operation of two pilot plants. The materials in other parts of the Mineral Resource are similar to other known deposits. Less rigorous metallurgical testwork has been completed by Peak on these additional materials to date but literature research and preliminary bench scale test work using gravity, floatation and leaching processes support the potential for their effective treatment.

A total REO cut-off grade of 1% has been used for Mineral Resource estimate reporting based on assumptions relating to mining, pricing and metallurgical parameters which, whilst not rigorous for all material types, suggests that material exceeding 1% REO has a reasonable prospect for eventual economic extraction. This cut-off grade is consistent with the 2013 estimate. A higher cut-off grade of 3% REO has been used for the weathered Bastnaesite Zone mineralisation in line with previous estimates to allow comparison, and to reflect the typical geological grade distribution of the majority of this material.

Following the estimation process, Mineral Resources were assessed using a number of measures to develop an overall classification strategy. The Mineral Resource Classifications have been applied based on a consideration of the confidence in the geological interpretation, the quality and quantity of the input data, the confidence in the estimation technique and the likely economic viability of the material. The variography studies indicate that grade continuity is well defined for most constituents, with low nugget values and ranges of up to several hundred metres. The main source of Mineral Resource estimation uncertainty is considered to be the geological model. Confidence in the geological model is primarily based on drill spacing, and therefore sample coverage is considered to be the main controlling factor for Classification. A Classification of Measured was assigned to the central Bastnaesite Zone where drill coverage is close-spaced and uniform (generally 40m x 50m). The consistent South West Alluvial Zone mineralisation shows high continuity and is also classified as Measured at the 40m x 100m and 80m x 100m drill spacing. 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, including at depth in the fresh rock (see Figure 5 for a plan view of Mineral Resource Classifications at surface and drill coverage).

Preliminary mining studies, the morphology and near surface location of the Mineral Resources suggest effective extraction by conventional selective open pit mining methods with low waste ratios using small scale hydraulic excavator and dump truck haulage.

Modifying factors: The weathered Bastnaesite Zone contains a small number of randomly distributed, high calcium intercepts which are thought to represent small slivers or boulders of unweathered carbonatite. Given this material will likely be sidecast during mining, these samples were excluded from the estimation dataset and the local tonnages were factored accordingly to account for material loss.

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 and the estimated block tonnages were factored accordingly.

Further information pertaining to the Mineral Resource estimates is included in Appendix 2.

Darren Townsend
Managing Director

About Peak

Peak is an ASX listed Company developing the Ngualla Rare Earth Project in Tanzania in conjunction with its partners Appian and IFC. Ngualla is a large high grade rare earth deposit particularly rich in the high growth magnet metals Neodymium and Praseodymium. Peak is currently undertaking the Bankable Feasibility Study for the Ngualla Project and has appointed AMEC Foster Wheeler as the lead engineer for the study.

Competent Person's Statements

The information in this statement 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 Australian 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 Australian 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 report in the form and context in which it appears.

The information in this report that relates to Exploration Results is based on information compiled and/or reviewed by David Hammond, who is a Member of The Australian Institute of Mining and Metallurgy. David 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 the activity which he is undertaking to qualify as a Competent Person in terms of the 2012 Edition of the Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves. David Hammond consents to the inclusion in the report of the matters based on his information in the form and contest in which it appears.

Appendix 1

Table 3:

Ngualla 2016 weathered Bastnaesite Zone Mineral Resource>=3% REO: Individual Rare Earth Oxide grades and percentage of total REO

Rare Earth Oxides		REO Grade (%)				% of Total REO			
		Measured	Indicated	Inferred	All	Measured	Indicated	Inferred	All
Lanthanum	La_2O_3	1.346	1.430	1.328	1.353	27.61	27.83	27.45	27.63
Cerium	CeO_2	2.354	2.478	2.327	2.364	48.28	48.22	48.07	48.27
Praseodymium	Pr_6O_{11}	0.233	0.244	0.230	0.234	4.77	4.74	4.75	4.77
Neodymium	Nd_2O_3	0.803	0.842	0.821	0.806	16.46	16.38	16.96	16.47
Samarium	Sm_2O_3	0.078	0.082	0.076	0.078	1.60	1.59	1.56	1.60
Europium	Eu_2O_3	0.014	0.015	0.014	0.014	0.29	0.28	0.28	0.29
Gadolinium	Gd_2O_3	0.030	0.031	0.029	0.030	0.61	0.60	0.60	0.61
Terbium	Tb_4O_7	0.002	0.002	0.002	0.002	0.04	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	0.03	0.03	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	0.008	0.010	0.20	0.19	0.16	0.20
Total REO*		**4.88**	**5.14**	**4.84**	**4.90**	**100.00**	**100.00**	**100.00**	**100.00**

Table 4:

Ngualla 2016 All Resources Mineral Resource >=1% REO: Individual Rare Earth Oxide grades and percentage of total REO

Rare Earth Oxides		REO Grade (%)				% of Total REO			
		Measured	Indicated	Inferred	All	Measured	Indicated	Inferred	All
Lanthanum	La_2O_3	0.704	0.501	0.560	0.587	26.99	27.73	26.08	27.25
Cerium	CeO_2	1.262	0.871	1.022	1.039	48.38	48.17	47.61	48.23
Praseodymium	Pr_6O_{11}	0.125	0.087	0.105	0.104	4.81	4.80	4.90	4.81
Neodymium	Nd_2O_3	0.429	0.285	0.360	0.348	16.44	15.75	16.75	16.16
Samarium	Sm_2O_3	0.043	0.030	0.040	0.036	1.66	1.64	1.88	1.66
Europium	Eu_2O_3	0.009	0.006	0.009	0.007	0.33	0.34	0.43	0.34
Gadolinium	Gd_2O_3	0.019	0.014	0.021	0.016	0.71	0.76	0.99	0.75
Terbium	Tb_4O_7	0.002	0.001	0.002	0.001	0.06	0.07	0.09	0.07
Dysprosium	Dy_2O_3	0.003	0.003	0.006	0.003	0.13	0.16	0.27	0.16
Holmium	Ho_2O_3	0.000	0.000	0.001	0.000	0.02	0.02	0.03	0.02
Erbium	Er_2O_3	0.001	0.001	0.002	0.001	0.05	0.06	0.09	0.06
Thulium	Tm_2O_3	0.000	0.000	0.000	0.000	0.00	0.00	0.01	0.00
Ytterbium	Yb_2O_3	0.001	0.000	0.001	0.001	0.02	0.02	0.04	0.04
Lutetium	Lu_2O_3	0.000	0.000	0.000	0.000	0.00	0.00	0.00	0.00
Yttrium	Y_2O_3	0.011	0.009	0.018	0.010	0.40	0.48	0.82	0.47
Total REO*		**2.61**	**1.81**	**2.15**	**2.15**	**100.00**	**100.00**	**100.00**	**100.00**

*Figures may not sum due to rounding

Appendix 2

JORC Code 2012 Edition

Section 1 Sampling Techniques and Data

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

Criteria	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 (DDH), reverse circulation (RC), and aircore (AC) drilling. The drill hole dataset considered for mineral resource estimation comprised a total of 32 DDH holes (3,105.8 m), 320 RC holes (30,139 m), and 297 AC holes (5,541 m). Geochemical data for a total of 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	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 programmes, 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 RC sample moisture content 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 DDH 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 DDH and RC intervals were geologically logged, with information pertaining to lithology, mineralogy, weathering, and magnetic susceptibility collected and recorded. RC sample weights were recorded. DDH recovery relative to drill length was recorded. RQD was measured and recorded for DDH intervals. Because the DDH 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	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 DDH and RC datasets were examined to confirm that the sample collection procedures had not resulted in significant bias or precision issues. The QA data does 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. Laboratory performance was monitored using the results from the QA samples inserted by Peak (see above). The Standards consist of Certified Reference Materials 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.

Criteria	Explanation	Commentary
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, along with some spot checking of intervals by SRK during the site visit. An RC twinned hole exists for each DDH 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. Down hole 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 DDH 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 to be 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.

Criteria	Explanation	Commentary
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 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 the SGS, Perth by DHL air freight.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	H & S Consultants and SRK Consultants 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	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 sits wholly within the Tanzanian Prospecting Licence PL6079/2009. The licence is 100% owned by PR NG Minerals Ltd. Peak has entered into a funding agreement with Appian Natural Resources Fund and IFC, a member of the World Bank Group whereby Appian and IFC currently have an effective combined 12.5% interest in PR NG Minerals on an 80:20 split. Peak currently holds the remaining 87.5% interest in PR NG Minerals, but upon additional stages of the funding arrangement with Appian and IFC for up to an additional investment of A$11.8 million and subject to certain milestones, this may result in Peak reducing to an effective 62.5% stake in PR NG Minerals. The financing agreement with Appian and IFC includes the sale of a 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 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 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 above an irregular karstic surface, referred to as the 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 – 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.	The drill hole plan in Figure 2 illustrates the distribution of drilling over the Mineral Resource block model coloured by 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	Explanation	Commentary
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.	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 3 shows the average distribution of individual rare earth oxides within the >=3% REO weathered Bastnaesite Zone and Table 4 the average distribution in All Mineral Resources >=1% REO. These ratios are consistent throughout the mineralisation. 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 3% 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 down hole 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.	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.
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.

Criteria	Explanation	Commentary
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 be in the range of 1.70 to 2.96 g/cm3. 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 test work, 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 +3% REO weathered Bastnaesite Zone are very low at 15 ppm and 53 ppm respectively. Other exploration data is 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 on the Ngualla Rare Earth Project is currently in progress and includes the operation of metallurgical pilot plant. An Ore Reserve will be estimated in 2016 as part of the BFS and associated pilot plant and engineering studies.

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	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 is entered into project-specific password-protected spreadsheets with in-built auto-validation settings. The spreadsheet data is 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 diamond 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. For validation purposes, an independent model was prepared by SRK using a lithological indicator approach. Acceptable correlation with Peak's sectional interpretation was observed.

Criteria	Explanation	Commentary
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 km2, 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 150m. • High calcium weathered carbonatite occurs in approximately 25% of the area, and has an average thickness of 29 m, and a maximum thickness of 105m. • 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 km2, 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. • Fresh carbonatite was interpreted under the full extent of the SWA, but not included in the reported resources.

Criteria	Explanation	Commentary
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. 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 a total of 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. 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.

Criteria	Explanation	Commentary
Estimation and modelling techniques (continued)		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. Also, 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 believed 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. A higher cut-off grade of 3% REO has been used for the weathered Bastnaesite Zone mineralisation in line with previous estimates to allow comparison, and to reflect the typical geological grade distribution of the majority of this material type.
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. Limited blasting is expected to 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.

Criteria	Explanation	Commentary
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. The process is currently in Bankable Feasibility Stage. 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. Less rigorous metallurgical testwork has been completed to date by Peak on these other styles of mineralisation, however early stage baseline metallurgical testwork on these material types support the potential for their effective treatment.
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 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. An Environmental Impact Assessment (EIA) is in progress and will be completed prior to the commencement of mining.

Criteria	Explanation	Commentary
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 a total of 1,157 test results derived from samples acquired from 29 diamond 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 vughs 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.

Criteria	Explanation	Commentary
Classification	• The basis for the classification of the Mineral Resources into varying confidence categories. • 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.	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 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 to be 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.	An independent review of the 2016 mineral resource estimates is currently being undertaken by Amec Foster Wheeler, who are managing the BFS. This review had not been finalised at the time of reporting.

Criteria	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.