PEAK RESOURCES LIMITED

NGUALLA
A LOW COST RARE EARTH PROJECT

Quarterly Activities Report

AND
Appendix 5B

For the period ending
31 December 2013

ASX: PEK

Significant progress continues to be made towards the development and commercialisation of the Ngualla Rare Earth Project into a long life, low cost producer of high purity rare earth products.

Highlights:

- MoU signed with established Chinese rare earth producer for the objective of developing the Ngualla Rare Earth Project
- Appointment of Managing Director with extensive strategic metals, project development, operational and corporate experience
- The conclusion of the ANSTO solvent extraction pilot plant operation completes the practical demonstration of the end to end metallurgical process from mineralisation to high purity separated products
- The Preliminary Feasibility Study (PFS) and revised economic assessment is on schedule for completion in the first Quarter 2014
- A maiden Reserve estimate to follow shortly after the PFS before the end of the first Quarter 2014
- High value rare earths including neodymium, praseodymium and europium underpin projected revenues
- The Ngualla Project remains on track to achieve rare earth production in 2016

✓ **Discovery** Aug 2010 ▶ ✓ **Resource** Feb 2012 ▶ ✓ **Metallurgy** 2012 ▶ ✓ **Scoping** Dec 2012 ▶ ↓ **PFS** 2013 ▶ **DFS** 2014 ▶ **Production** 2016

Peak Resources Limited is developing its 100% owned Ngualla Rare Earth Project in Tanzania.

Ngualla is on schedule to become the next major rare earth producer with high grade mineralisation and a simple, proven metallurgical process supporting a low cost operation.

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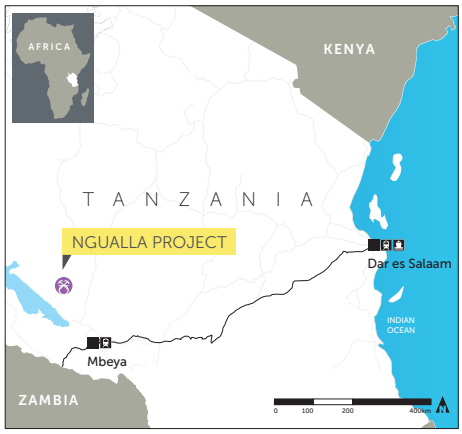
Ngualla Rare Earth Project, Tanzania

Rare Earths, Niobium – Tantalum, Phosphate.

Peak Resources – 100%

Peak Resources Limited (Peak; ASX: PEK) is a Perth based mineral exploration and development company whose primary focus is the development of the 100% owned Ngualla Rare Earth Project in Tanzania.

The Ngualla discovery is the highest grade of the large undeveloped rare earth deposits and is capable of supporting a mine life of over 50 years at a 10,000tpa rare earth oxide (REO) base case production level.



Location of Ngualla Project, Tanzania.

Fundamental geological aspects of the central Bastnaesite Zone offer distinct advantages for development over other rare earth projects. These include outcropping, high grade mineralisation, favourable mineralogy amenable to a proven, low cost processing route and the lowest uranium and thorium levels of any major rare earth deposit in the world.

The favourable characteristics are reflected in the outcomes of the preliminary economic assessment, which defines very low capital and operating costs compared to other rare earth projects.

The Company continues to fast track the development of Ngualla with the aim of becoming a low cost, long term producer of high purity rare earth products in 2016.

Chinese Rare Earth Producer MoU

The Company announced the signing of a Memorandum of Understanding (MoU) with a Chinese rare earth producer for the objective of developing the 100% Peak owned Ngualla Rare Earth Project on 18th December 2013.

A partnership between Peak and the Chinese company with its established rare earth processing and separation facilities, leading technical expertise and marketing network has the potential to provide great impetus for the successful development of the Ngualla Project into a major and low cost rare earth producer.

While the MoU is non-binding, it provides the agreed framework to formalise arrangements for a long term strategic partnership to develop the Ngualla Rare Earth Project in Tanzania.

Under the terms of the MoU both parties will work together to co-operate and form a partnership in the following areas:

- Chinese partner to review and provide technical expertise in the further optimisation of the demonstrated mineral process developed for Ngualla's rare earth mineralisation including beneficiation, acid leach recovery and separation
- Chinese partner may introduce further parties for the purpose of investment, project construction, processing, engineering studies and marketing
- Examine opportunities for the establishment of a jointly owned separation plant
- A direct investment by the Chinese partner to assist with the development of the Ngualla Rare Earth Project
- Negotiate an offtake agreement for Ngualla rare earth mineral concentrate, mixed carbonate or other intermediate products

Peak has a high quality rare earth asset in Ngualla and the Chinese company has the established processing and marketing experience to make this a natural and mutually beneficial partnership. The synergies between Peak and the Chinese company have the potential to realise significant value for both parties and assist in the commercialisation of the Ngualla Rare Earth Project.

Discussions are proceeding to formalise the terms of the partnership and bulk samples of Ngualla's mineralisation are being despatched to China to allow the assessment and metallurgical optimisation test work to proceed.

Appointment of Managing Director

Subsequent to the end of the December Quarter the Company was pleased to announce the appointment of Mr Darren Townsend as Managing Director.

Mr. Townsend has extensive project development, operational and corporate experience in strategic metals that will be of immense value as Peak moves forward with the development of the Ngualla Rare Earth Project.

Darren was responsible for the successful development and expansion of mining and processing operations as site General Manager of what was the world's largest Tantalum Mine at Wodgina in Western Australia between 1999 and 2004.

Darren also has substantial corporate experience at Managing Director and Chairman level in both ASX and TSXV listed Companies.

Mr. Townsend's most recent position was as President and Chief Executive Officer of TSXV listed Pacific Wildcat Resources Corp where he has led the Company's activities since 2008. During this period he has overseen the development of a Tantalum Mine in Mozambique and the acquisition and evaluation of the Mrima Hill Rare Earth and Niobium Project in Kenya.

Solvent Extraction Pilot Plant

The operation of the Solvent Extraction (SX) Pilot Plant at ANSTO Minerals near Sydney was concluded early in the December Quarter.

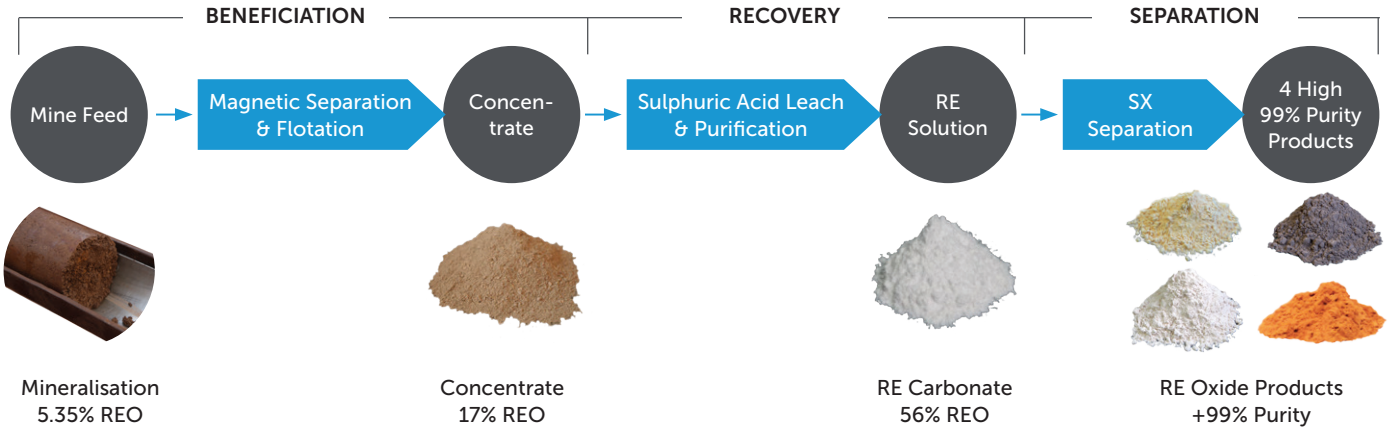
The successful completion of this final processing stage is a significant milestone and positions Peak as one of a select few companies outside of China to have practically demonstrated the entire process route from feed mineralisation to high purity separated rare earth oxide products (Figure 1).

The SX Pilot Plant operation has also been important in providing quantified operating data to accurately determine separation plant capital and operating costs for input into the PFS as well as final product samples for evaluation by potential off take partners.

The program commenced in February 2013 with the preparation of a feed for the SX plant from a 1.3 tonne bulk sample of weathered Bastnaesite Zone mineralisation from Ngualla. ANSTO Minerals treated this sample using the simple sulphuric acid recovery process.

Photo: ANSTO Minerals Rare Earth Separation Facility

Figure 1: Photographs of Ngualla's mineralisation and products through the mineral process



The completion of the fourth and final product, high purity cerium oxide in October 2013, followed the high purity mid + heavy rare earth oxide, the neodymium - praseodymium oxide and the lanthanum oxide announced earlier in the year (Figure 2). The cerium oxide, was produced in two forms to study cost and marketing options for this lower priced product used in the catalyst and glass polishing industries.

The first form, a 97%* purity cerium oxide, was produced via classic solvent extraction techniques. As the majority of cerium was recovered earlier in the process, only enough solution remained for batch tests rather than a continuous operation. ANSTO Minerals is confident that a +99% purity product will be achievable in a continuous operation where full equilibrium of solutions will be established.

Figure 2: High purity separated rare earth oxides produced from Ngualla mineralisation at ANSTO Minerals

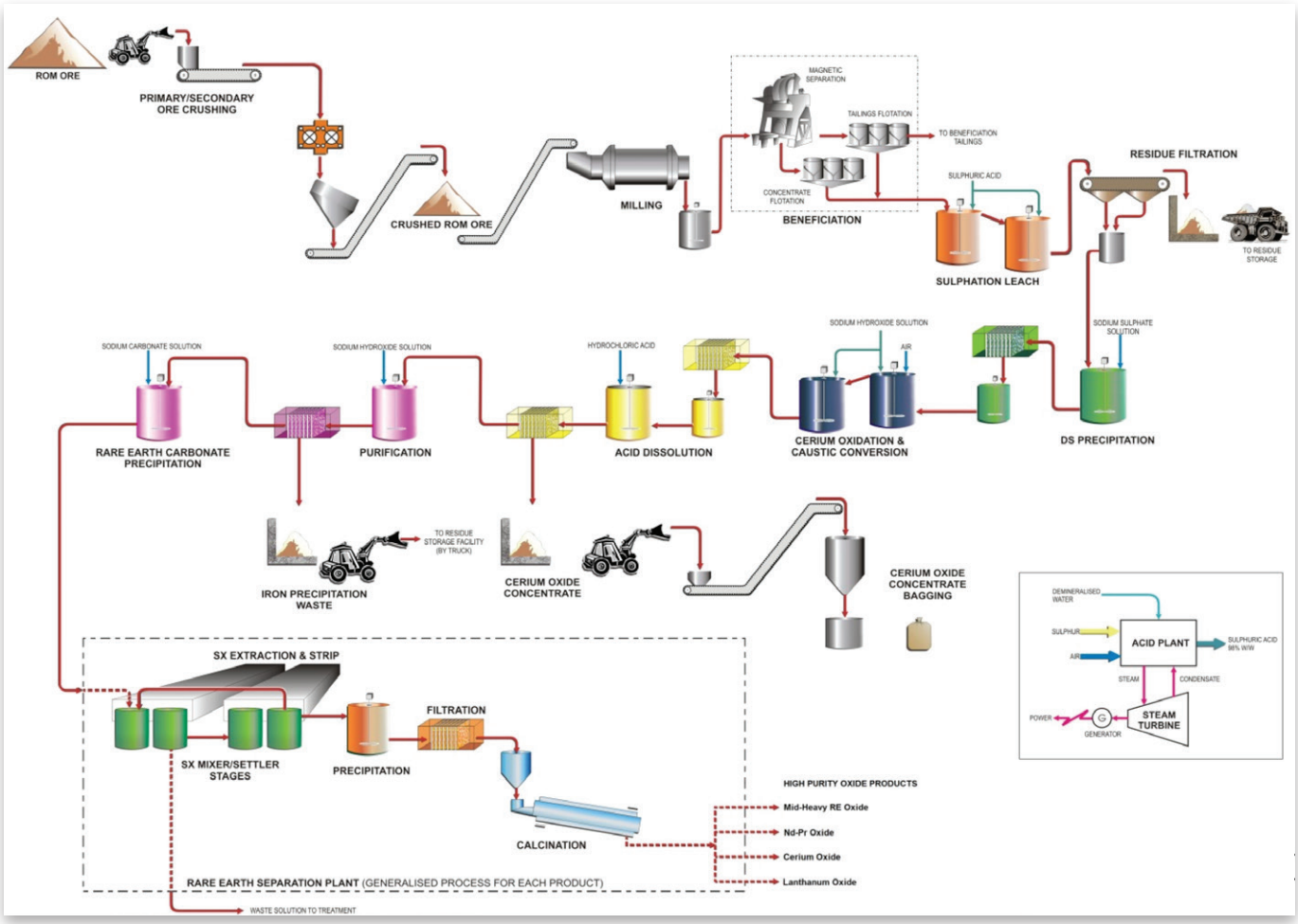
The second form, a +90% purity cerium oxide, was produced by direct precipitation. This simpler method of production can potentially offer cost savings as it is a single stage process and uses cheaper reagents.

A cost benefit analysis will be completed to determine the optimum method of cerium production as part of the current Preliminary Feasibility Study.

Preliminary Feasibility Study

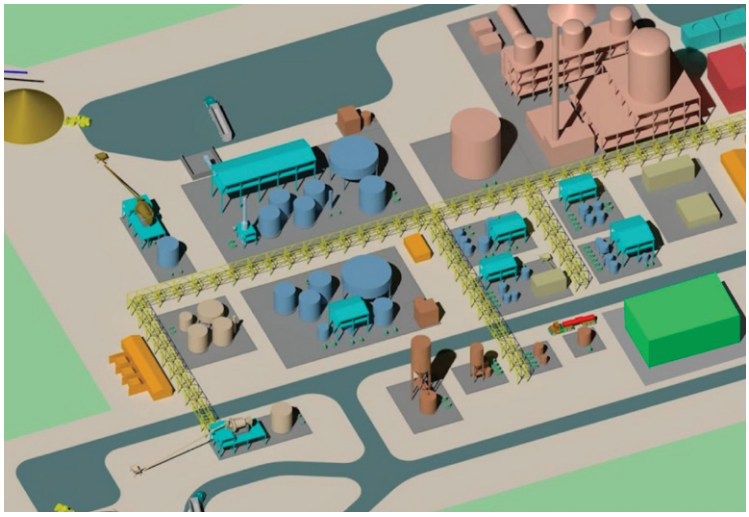
The Preliminary Feasibility Study (PFS) is well advanced with the metallurgical test work and most other major work components and associated expenditures now completed. The Study will include a revised economic assessment for the project and is on track for completion prior to the end of the first Quarter 2014.

Figure 3: Ngualla Rare Earth Project process flow sheet



*Excluding LOI and normalised

Figure 4: 3D plant layout of Ngualla processing facility (detail)



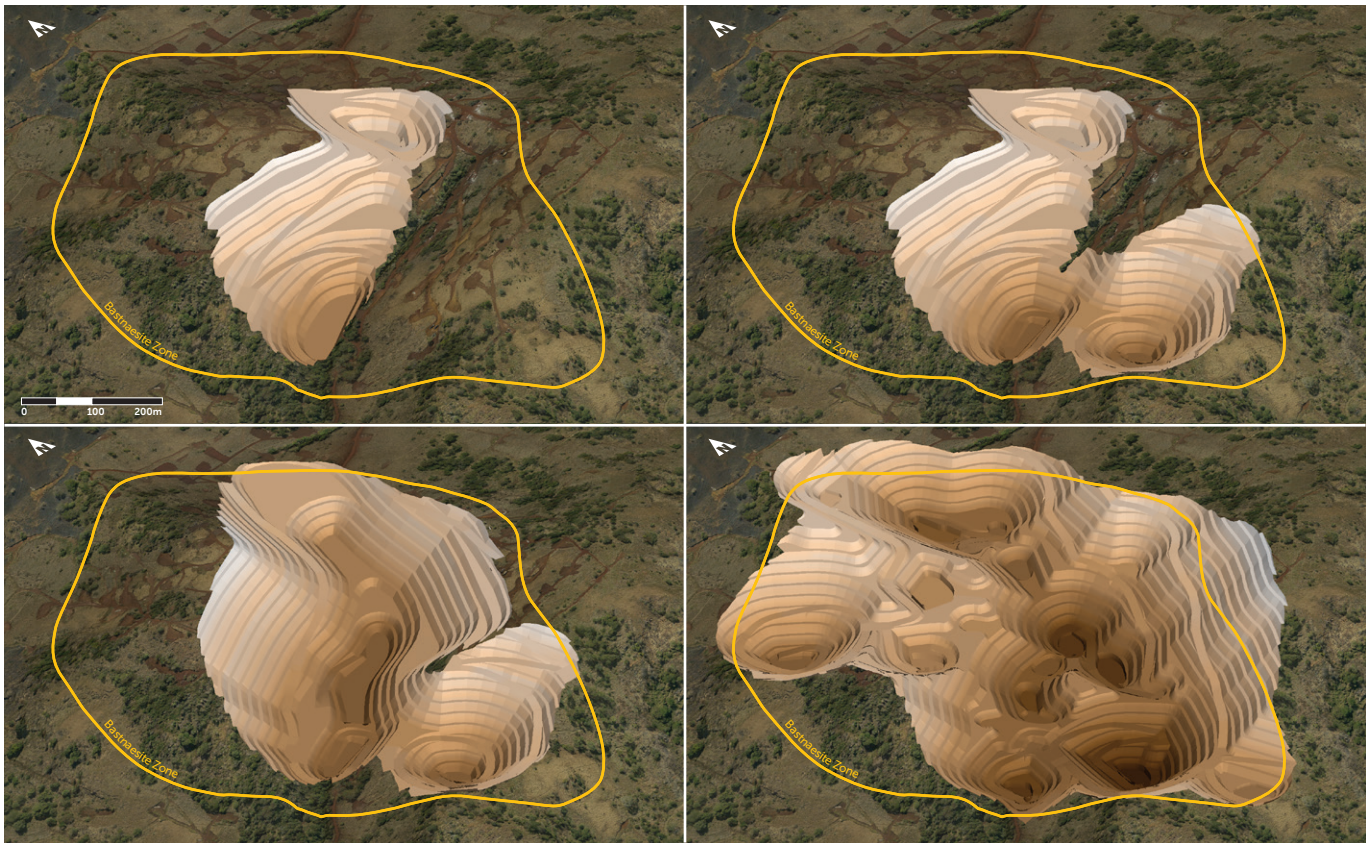
The revised Scoping Study released on 29 May 2013 showed Ngualla to be a uniquely low cost operation in terms of capital requirements and unit operating costs, with robust project economics. The PFS builds on this work using detailed engineering, cost estimations and data from the additional metallurgical test work programs and other studies to evaluate a series of production scenarios and determine the optimum development pathway for Ngualla.

The Ngualla processing plant can be divided into several separate modules, not all of which need to be located at the Ngualla mine site. The PFS will evaluate the economic benefits of siting some portions of the operation closer to power, major roads, rail or port facilities.

The PFS also includes studies to evaluate the potential for the phased development of Ngualla in order to reduce start-up capital costs and lead time to production. Scenarios under consideration include the production of intermediate products of a bastnaesite mineral concentrate (which with the absence of radioactivity in Ngualla's mineralisation can be readily transported); a mixed rare earth carbonate product (which may be sold or toll treated); commencing production at a smaller scale than the 10,000t per annum contained rare earth oxide (REO) base case, and subsequently increasing production through to 20,000t REO per annum.

Ngualla's low capital costs and operating costs result from high REO grades, low cost open pit mining, absence of radioactivity and simple processing. Low capital costs may allow for a small scale start-up operation which will demonstrate product quality and establish Peak in the marketplace. Production could then be expanded with demand as necessary, offering greater flexibility than many high cost projects that require large scale production in order to spread unit costs and pay back the high capital costs.

Figure 5: Preliminary staged pit designs, Bastnaesite Zone



Maiden Reserve Estimate

A maiden Reserve estimate for the Ngualla Rare Earth Project is scheduled for completion in the first Quarter 2014 and will follow shortly after the completion of the PFS. The Reserve will be reported according to the 2012 JORC Code and Guidelines and will be centred on the weathered Bastnaesite Zone portion of the greater Ngualla rare earth deposit that is targeted for first production.

The completion of a Reserve estimate will be another significant milestone for Peak and will place Ngualla amongst a small number of rare earth development projects to have sucessfully advanced to this stage.

Rare Earth Prices and Ngualla's Value Drivers

Ngualla's main value drivers are neodymium, praseodymium and europium, which together with the mid-heavy rare earths comprise 86% of the project's projected annual revenue (Figure 6).

Neodymium and praseodymium are both in high demand for the manufacture of permanent magnets used in the expanding wind turbines, hybrid cars and personnel electronics industries. These high value and strategic rare earths have predicted demand growth forecasts* of +10% per annum and underpin the project's future revenue.

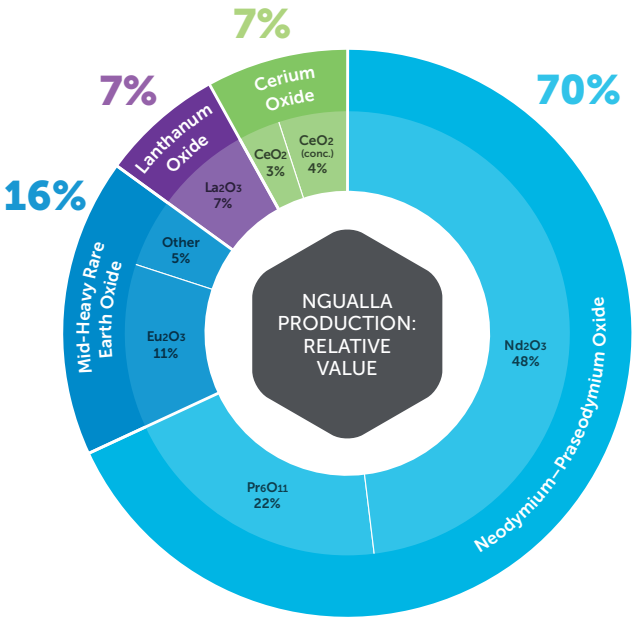


Figure 6: Relative value contributors by product type and constituent REO's. The majority (86%) of Ngualla's revenue is from the mid to heavy and neodymium – praseodymium high purity separated rare earth oxide products. Product Values based on in ground relative distribution of rare earths and product splits as per revised Scoping Study and rare earth prices as per 19th November 2013 (MetalPages).

Project Development

The completion of the PFS followed by a maiden Reserve assures significant news flow and provides potential upside for Peak and the Ngualla Project in the short term and are significant steps in demonstrating the de-risking of the project.

The PFS will be followed by the commencement of a Definitive Feasibility Study (DFS). Additional metallurgical optimisation of the beneficiation and acid leach recovery stages, together with acid recycling test work will be completed early to further reduce the already low operating costs of the project.

Pilot plants for these sections of the process will provide detailed engineering and operating data for the DFS after the optimisation work. Environmental permitting will also commence in 2014 to support a mining licence application and a production start-up that remains on track for 2016.

Tanzanian Gold Projects

The Company closed the Mwanza exploration base in the Lake Victoria Gold Field region to reduce overheads and focus resources on the development of the Ngualla Rare Earth Project.

Peak continues to assess high potential, 'low entry cost' gold and other commodity projects as opportunities arise with the aim of expanding and diversifying the exploration portfolio in Tanzania to leverage off the Company's logistical and knowledge base in country.

*Source: IMCOA September 2013 and Roskill November 2013

Corporate

With the appointment of Darren Townsend as Managing Director in January 2014, Executive Chairman Mr Alastair Hunter will resume his previous role as Non-Executive Chairman.

The Company's board of directors approved the withdrawal of the Company's shares from trading on the OTCQX effective 31st December 2013 primarily due to thin trading volumes and the costs associated with regulatory compliance exceeding the benefits.

A non-renounceable rights issue was announced on 18th December 2013 and closes 20th January 2014. The issue of approximately 55,111,377 fully paid ordinary shares is a pro rata one-for-five entitlement at an issue price of $0.06 to raise up to approximately $3,306,683. The issue offer includes one free attaching option ("New Options") to acquire a Share for every one New Share subscribed for and issued. The New Options will be exercisable at $0.10 each on or before 30 June 2015.

The Company had $841,000 cash on hand at 31 December 2013 (prior to and excluding any rights issue funds received).

Corporate Structure and Cash on Hand

The corporate structure as at the 31 December 2013 was:

ASX: PEK
Ordinary Shares on Issue: 275.6 million
Cash at hand: $841,000
52 week range: 6.5c – 19c*

Market Cap: $18.5m (at 6.7c)
Listed Options outstanding: 51.7 million
Unlisted Options outstanding: 7.9 million
Liquidity: 0.271 million shares per day (av. over 3 mths**)

* From 01-Jan-13 to 31-Dec-13 ** Average from 01-Oct-13 to 31-Dec-13

Alastair Hunter
Executive Chairman

The information in this report 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 the report of the matters based on his information 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 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dave Hammond consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix 5B
Mining exploration entity and oil and gas exploration entity quarterly report

Rule 5.5

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/2013

Name of entity

Peak Resources Limited

ABN

72 112 546 700

Quarter ended ("current quarter")

December 2013

Consolidated statement of cash flows

		Current quarter $A'000	Year to date (6 months) $A'000
Cash flows related to operating activities			
1.1	Receipts from product sales and related debtors	-	-
1.2	Payments for (a) exploration & evaluation	(214)	(543)
	(b) development	(401)	(784)
	(c) production	-	-
	(d) administration	(824)	(1,642)
1.3	Dividends received	-	-
1.4	Interest and other items of a similar nature received	4	16
1.5	Interest and other costs of finance paid	(8)	(20)
1.6	Income taxes paid	-	-
1.7	Other (provide details if material)*	1,691	1,691
	Net Operating Cash Flows	248	(1,282)
	Cash flows related to investing activities		
1.8	Payment for purchases of: (a) prospects	-	-
	(b) equity investments	-	-
	(c) other fixed assets	-	-
1.9	Proceeds from sale of: (a) prospects	-	-
	(b) equity investments	-	-
	(c) other fixed assets	-	-
1.10	Loans to other entities	-	-
1.11	Loans repaid by other entities	-	-
1.12	Other (provide details if material)	-	-
	Net investing cash flows	-	-
1.13	Total operating and investing cash flows (carried forward)	248	(1,282)

Appendix 5B
Mining exploration entity and oil and gas exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	248	(1,282)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	-	-
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	(315)	(315)
1.18	Dividends paid	-	-
1.19	Other (provide details if material)	-	-
	Net financing cash flows	(315)	(315)
	Net increase (decrease) in cash held	(67)	(1,597)
1.20	Cash at beginning of quarter/year to date	910	2,441
1.21	Exchange rate adjustments to item 1.20	(2)	(3)
1.22	**Cash at end of quarter**	841	841

* R & D Incentive Rebate

Payments to directors of the entity, associates of the directors, related entities of the entity and associates of the related entities

		Current quarter $A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	95
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

1.23 includes salaries, directors fees paid to Directors and payments to Steinepreis Paganin Lawyers & Consultants, an entity related to Jonathan Murray

Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

n/a

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Mining exploration entity and oil and gas exploration entity quarterly report

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

n/a

Financing facilities available

Add notes as necessary for an understanding of the position.

		Amount available $A'000	Amount used $A'000
3.1	Loan facilities	-	-
3.2	Credit standby arrangements	-	-

Estimated cash outflows for next quarter

		$A'000
4.1	Exploration and evaluation	120
4.2	Development	287
4.3	Production	-
4.4	Administration	483
	Total	**968**

Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.		Current quarter $A'000	Previous quarter $A'000
5.1	Cash on hand and at bank	841	510
5.2	Deposits at call	-	400
5.3	Bank overdraft	-	-
5.4	Other (provide details)	-	-
	Total: cash at end of quarter (item 1.22)	**841**	**910**

Appendix 5B
Mining exploration entity and oil and gas exploration entity quarterly report

Changes in interests in mining tenements and petroleum tenements

		Tenement reference and location	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements and petroleum tenements relinquished, reduced or lapsed				
6.2	Interests in mining tenements and petroleum tenements acquired or increased				

Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	**Preference +securities** *(description)*				
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	**+Ordinary securities**	275,556,886	275,556,886		Fully Paid
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs				
7.5	**+Convertible debt securities** (*description*)				

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Mining exploration entity and oil and gas exploration entity quarterly report

7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	**Options** *(description and conversion factor)*	1,000,000 6,250,000 541,667 150,000 51,659,251	- - - - 51,659,251	*Exercise price* $1.50 $0.55 $0.75 $0.55 $0.25	*Expiry date* 26 May 2014 20 February 2017 24 February 2014 3 March 2018 31 July 2014
7.8	Issued during quarter				
7.9	Exercised during quarter				
7.10	Expired during quarter				
7.11	**Debentures** *(totals only)*				
7.12	**Unsecured notes** *(totals only)*				

Compliance statement

1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 5).

2 This statement does give a true and fair view of the matters disclosed.

Sign here: Company secretary

Date: 16 January 2014

Print name: Jeffrey Dawkins

Notes

1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.

Appendix 5B
Mining exploration entity and oil and gas exploration entity quarterly report

2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements and petroleum tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement or petroleum tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.

3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.

4 The definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report.

5 **Accounting Standards** ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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