

2020 Mineral Resources and Ore Reserves Statement

Key Points

- Maiden Ranobe Ore Reserves estimate for the Toliara Project announced on 6 December 2019 of 586Mt at an average HM grade of 6.5% containing 38Mt of in-situ HM.
- Kwale South Dune Mineral Resources and Ore Reserves estimates were reduced by mining depletion in the year to 30 June 2020, as well as by a 5% reduction in the estimated material bulk density, sterilisation of sub-economic material and a reduction in the size of the prospecting licence omitting some low-grade material, with the total effect of:
 - Reducing the South Dune Mineral Resources by 38Mt containing 1.1Mt of in situ HM.
 - Reducing the South Dune Ore Reserves by 22Mt containing 0.9Mt of in situ HM.

The 2020 Mineral Resources and Ore Reserves estimates for **Base Resources Limited** (ASX & AIM: BSE) (**Base Resources** or the **Company**) are summarised in the table below together with the 2019 Mineral Resources and Ore Reserves estimates for comparison.

Deposit	2020 as at 30 June 2020										2019 as at 30 June 2019							
	Tonnes (Mt)	HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage				Tonnes (Mt)	HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage			
						ILM (%)	RUT (%)	LEUC (%)	ZIR (%)						ILM (%)	RUT (%)	ZIR (%)	
Mineral Resources (Measured + Indicated + Inferred, inclusive of Ore Reserves)																		
Kwale	246	4.9	2.0	34	2	51	13	-	5	285	6.0	2.1	33	2	52	13	6	
Ranobe	1,293	66	5.1	6	0	72	2*	-	6	1,293	66	5.1	6	0	72	2	6	
Ore Reserves (Proved + Probable)																		
Kwale	40	1.4	3.4	26	1.7	57	13	-	6	62	2.3	3.8	27	3	57	13	6	
Ranobe	586	38	6.5	3.9	0.1	74	1.1	0.9^	5.9	-	-	-	-	-	-	-	-	

Table subject to rounding differences.

* Rutile reported is rutile + leucoxene mineral species.

^ Recovered Leucoxene will be split between Rutile and Chloride Ilmenite products depending on product specification requirements.

Mineral Resources and Ore Reserves estimates in this statement are reported in accordance with the JORC Code (2012 edition). Accordingly, this statement should be read in conjunction with the respective explanatory Mineral Resources and Ore Reserves information included in the following announcements¹:

Deposit		Announcement Title	Estimate Date	Release Date
Kwale South Dune	Mineral Resources & Ore Reserves	Updated Kwale South Dune Mineral Resources and Ore Reserves estimate	31 March 2020	27 July 2020
Kwale North Dune	Mineral Resources	Mineral Resource for Kwale North Dune deposit	1 May 2019	1 May 2019
Ranobe	Ore Reserves	Maiden Ranobe Ore Reserves Estimate	27 November 2019	6 December 2019
Ranobe	Mineral Resources	Updated Ranobe Deposit Mineral Resources (corrected)	23 January 2019	23 January 2019
2019 Comparatives	Mineral Resources & Ore Reserves	2019 Mineral Resources and Ore Reserves Statement	30 June 2019	21 August 2019

¹ ASX announcements are available at <https://baseresources.com.au/investors/announcements/>.

Kwale Deposits

The Company's 100% owned Kwale Mineral Sands Operations (**Kwale Operations**) in Kenya is located approximately 50 kilometres south of Mombasa and 10 kilometres inland from the Kenyan coast. The Company's wholly owned subsidiary, Base Titanium Limited, holds Prospecting Licence 2018/0119 (**PL119**) which hosts the Kwale South Dune and North Dune deposits. The majority of the Kwale South Dune deposit resides within Special Mining Lease No. 23 (**SML23**), which sits within PL119 and is currently being mined. A pre-feasibility study is currently underway to assess the potential to mine the North Dune deposit.

Mineral Resources

The 2020 Kwale Mineral Resources, as at 30 June 2020, are estimated to be 246 million tonnes (**Mt**) at an average heavy mineral (**HM**) grade of 2.0% for 4.9Mt of contained HM, at a 1% HM cut-off grade.

Table 2: 2020 Kwale Mineral Resources estimate compared with the 2019 estimate at a 1% HM cut-off grade.

Category	2020 as at 30 June 2020									2019 as at 30 June 2019								
	Tonnes (Mt)	HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage			Tonnes (Mt)	HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage				
						ILM (%)	RUT (%)	ZIR (%)						ILM (%)	RUT (%)	ZIR (%)		
Kwale South Dune																		
Measured	55	1.8	3.2	24	1	58	14	6	81	2.6	3.2	25	1	59	14	6		
Indicated	20	0.6	2.9	26	7	52	12	6	33	0.8	2.5	26	7	52	12	6		
Total	76	2.3	3.1	25	3	57	13	6	114	3.5	3.0	25	3	56	13	6		
Kwale North Dune																		
Indicated	136	2.1	1.5	38	2	45	12	5	136	2.1	1.5	38	2	45	12	5		
Inferred	34	0.5	1.4	36	3	46	13	6	34	0.5	1.4	36	3	46	13	6		
Total	171	2.6	1.5	38	2	45	12	5	171	2.6	1.5	38	2	45	12	5		
Total Kwale Mineral Resources																		
Measured	55	1.8	3.2	24	1	58	14	6	81	2.6	3.2	25	1	59	14	6		
Indicated	157	2.7	1.7	37	2	47	12	5	169	2.9	1.7	36	3	47	12	5		
Inferred	34	0.5	1.4	36	3	46	13	6	34	0.5	1.4	36	3	46	13	6		
Total	246	4.9	2.0	34	2	51	13	5	285	6.0	2.1	33	2	52	13	6		

Table subject to rounding differences. Mineral Resources are inclusive of Kwale South Dune Ore Reserves.

The 2020 Kwale Mineral Resources estimate represents a decrease of 13.5% in material tonnes and 18.5% in contained HM tonnes when compared with the 2019 Kwale Mineral Resources estimate.

The decrease was solely to the Kwale South Dune Mineral Resources which are estimated to be 76Mt at an average HM grade of 3.1% for 2.3Mt of contained HM as at 30 June 2020, a decrease of 38Mt containing 1.1Mt of HM to the 2019 estimate. The decrease was due to:

- Mining depletion, decreasing material by 18.5Mt containing 0.67Mt of HM.
- Mining sterilisation of 12.0Mt of material and 0.25Mt of contained HM comprising material that was not mined as it was not considered economic to do so.
- A 5% reduction in the estimated material bulk density, decreasing material by 5.7Mt containing 0.17Mt of HM compared to the 2019 estimate. As announced on 27 July 2020², the reduction in estimated material bulk density was the result of routine reconciliations undertaken between the resource model predictions and run-of-mine operating data gained for ore mined since mining commenced on the Kwale South Dune in July 2019.
- A prospecting licence area reduction, decreasing material by 2.2Mt containing 0.03Mt of HM. The previous prospecting tenure instrument, Special Prospecting Licence 173, which was granted under the previous Kenyan Mining Act, was converted

² Refer to Base Resources' market announcement "Updated Kwale South Dune Mineral Resources and Ore Reserves estimate" released on 27 July 2020, which is available at <https://baseresources.com.au/investors/announcements/>.

to PL119 in May 2018, which was granted under the 2016 Kenyan Mining Act, requiring a 50% reduction in size. Material excluded by the reduction was not considered economic.

The Kwale North Dune Mineral Resources as at 30 June 2020 are unchanged from the 2019 estimate.

Ore Reserves

Contained within the Kwale South Dune Mineral Resources are the Kwale Ore Reserves, estimated as at 30 June 2020 to be 40Mt at an average HM grade of 3.4% for 1.4Mt of contained HM.

Table 3: The 2020 Kwale Ore Reserves estimate compared with the 2019 estimate.

Category	2020 as at 30 June 2020									2019 as at 30 June 2019						
	Tonnes (Mt)	HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage			Tonnes (Mt)	HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage		
						ILM (%)	RUT (%)	ZIR (%)						ILM (%)	RUT (%)	ZIR (%)
Kwale South Dune																
Proved	35	1.2	3.5	26	0.8	58	14	6	39	1.6	4.0	27	1	59	14	6
Probable	5	0.2	2.9	27	7	51	12	5	23	0.8	3.3	26	5	53	13	6
Total	40	1.4	3.4	26	1.7	57	13	6	62	2.3	3.8	27	3	57	13	6

Table subject to rounding differences.

The 2020 Kwale Ore Reserves estimate represents a decrease of 35% in total ore tonnes and 41% in contained HM tonnes compared to the 2019 Kwale Ore Reserves estimate. This decrease was due to:

- Mining depletion, decreasing ore by 18.3Mt containing 0.68Mt of HM.
- A 5% reduction in the estimated material bulk density of the resource model, decreasing ore by 3.1Mt containing 0.11Mt of HM.
- Other minor changes, including updates to the resource model (other than for material bulk density), altering the mine design to reflect the switch from dozer mining to hydraulic mining and sterilisation of ore, resulting in total reduction in ore of 0.16Mt containing 0.16Mt of HM.

The estimated material and contained HM tonnes for the 2020 Kwale South Dune Mineral Resources are significantly higher than the 2020 Kwale South Dune Ore Reserves estimate because the Ore Reserves are constrained within SML23, whereas the Mineral Resources are constrained within the much larger PL119. Mining tenure arrangements are being progressed with the Kenyan Ministry of Petroleum and Mining to extend the SML23 boundary to incorporate some of these additional Mineral Resources as a precursor to an anticipated updated Ore Reserves estimate.

No Ore Reserves estimate has been completed for the Kwale North Dune deposit.

Ranobe Deposit

The Company's 100% owned Toliara Project is based on the Ranobe deposit, located approximately 45 kilometres north of the town of Toliara and 15km inland from the coast in south west Madagascar. The Ranobe deposit sits within *Permis d'Exploitation* 37242, which is a mining lease under Malagasy law. The Company is currently progressing the project towards development, with a definitive feasibility study completed in December 2019³.

Mineral Resources

The 2020 Ranobe Mineral Resources are estimated to be 1,293Mt at an average HM grade of 5.1% for 66Mt of contained HM, based on a 1.5% HM cut-off grade. The Ranobe Mineral Resources at 30 June 2020 are unchanged from the 2019 estimate.

Table 4: The 2020 Ranobe Mineral Resources estimate, compared with the 2019 estimate, at a 1.5% HM cut-off grade.

Category	2020 as at 30 June 2020									2019 as at 30 June 2019								
	Material (Mt)	In Situ HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage			Material (Mt)	In Situ HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage				
						ILM (%)	RUT* (%)	ZIR (%)						ILM (%)	RUT* (%)	ZIR (%)		
Ranobe Mineral Resources																		
Measured	419	28	6.6	4	0	75	2	6	419	28	6.6	4	0	75	2	6		
Indicated	375	18	4.9	8	1	72	2	6	375	18	4.9	8	1	72	2	6		
Inferred	499	20	3.9	7	1	70	2	5	499	20	3.9	7	1	70	2	5		
Total	1,293	66	5.1	6	0	72	2	6	1,293	66	5.1	6	0	72	2	6		

Table subject to rounding differences. Mineral Resources are inclusive of Ranobe Ore Reserves.

*Rutile reported in the table is rutile + leucoxene mineral species.

Ore Reserves

Contained within the Ranobe Mineral Resources are the Ranobe Ore Reserves, estimated as at 30 June 2020 to be 586Mt at an average HM grade of 6.5% for 38Mt of contained HM. The Ranobe Ore Reserves estimate as at 30 June 2020 are unchanged from the maiden estimate announced on 6 December 2019⁴.

Table 5: The 2020 Ranobe Ore Reserves estimate.

Deposit	2020 as at 30 June 2020									2019 as at 30 June 2020								
	Tonnes (Mt)	HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage				Tonnes (Mt)	HM (Mt)	HM (%)	SL (%)	OS (%)	HM Assemblage			
						ILM (%)	RUT (%)	LEUC (%)	ZIR (%)						ILM (%)	RUT (%)	LEUC (%)	ZIR (%)
Ranobe Ore Reserves																		
Proved	347	24	7.0	3.8	0.1	75	1.0	1.0	5.9	N/A								
Probable	239	14	5.8	4.2	0.2	73	1.3	0.8	5.7									
Total	586	38	6.5	3.9	0.1	74	1.1	0.9[^]	5.9									

Table subject to rounding differences.

[^]Recovered Leucoxene will be split between Rutile and Chloride Ilmenite products depending on product specification requirements.

³ Refer to Base Resources' market announcement "DFS reinforces Toliara Project's status as a world class mineral sands development" released on 12 December 2019, which is available at <https://baseresources.com.au/investors/announcements/>.

⁴ Refer to Base Resources' market announcement "Maiden Ranobe Ore Reserves Estimate" released on 6 December 2019, which is available at <https://baseresources.com.au/investors/announcements/>.

Mineral Resources and Ore Reserves Governance

A summary of the governance, internal controls and estimation process applicable to Base Resources' Mineral Resources and Ore Reserves estimates are as follows:

Mineral Resources

- Review and validation of drilling and sampling methodology and data spacing, geological logging, data collection and storage, sampling and analytical quality control.
- Geological interpretation – review of known and interpreted structure, lithology and weathering controls.
- Estimation methodology – relevant to mineralisation style and proposed mining methodology.
- Comparison of estimation results with previous mineral resources models, and with results using alternate modelling methodologies.
- Visual validation of block model against raw composite data.
- Use of external competent persons to assist in preparation of Mineral Resources estimate updates.

Ore Reserves

- Review of potential mining methodology to suit deposit and mineralisation characteristics.
- Review of potential Modifying Factors, including cost assumptions and commodity prices to be utilised in mining evaluation.
- Ore Reserves estimate updates initiated with material changes in the above assumptions.
- Optimisation using appropriate software packages for open pit evaluation.
- Design based on optimisation results.
- Use of external competent persons to assist in preparation of Ore Reserves estimates.

Competent Persons' Statements

The 2020 Mineral Resources and Ore Reserves Statement has been approved by the following competent persons on the basis detailed below:

Mineral Resources – South Dune Deposit

The information in this announcement that relates to the Kwale South Dune Mineral Resources estimate is based on, and fairly represents, information and supporting documentation prepared by Mr. Scott Carruthers. Mr. Carruthers is a Member of The Australasian Institute of Mining and Metallurgy. Mr. Carruthers is employed by Base Resources, he holds equity securities in Base Resources, and is entitled to participate in Base Resources' long-term incentive plan and receive equity securities under that plan. Details about that plan are included in Base Resources' 2019 Annual Report. Mr. Carruthers has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code and as a qualified person for the purposes of the AIM Rules for Companies. Mr. Carruthers has reviewed this announcement and consents to the inclusion in this announcement of the Kwale South Dune Mineral Resources estimate and supporting information in the form and context in which the relevant information appears.

Mineral Resources – Kwale North Dune Deposit

The information in this announcement that relates to Kwale North Dune Mineral Resources estimate is based on, and fairly represents, information and supporting documentation prepared by Mr. Greg Jones, who acts as a Consultant Geologist for Base Resources and is employed by IHC Robbins. Mr. Jones is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code and as a qualified person for the purposes of the AIM Rules for Companies. Mr. Jones has reviewed this announcement and consents to the inclusion in this announcement of the Kwale North Dune Mineral Resources estimate and supporting information in the form and context in which it appears.

Ore Reserves – South Dune Deposit

The information in this announcement that relates to the Kwale South Dune Ore Reserves estimate is based on, and fairly represents, information and supporting documentation prepared by Mr. Per Scrimshaw and Mr. Scott Carruthers. Mr. Scrimshaw and Mr.

Carruthers are both Members of The Australasian Institute of Mining and Metallurgy. Mr. Scrimshaw is employed by Entech, a mining consultancy engaged by Base Resources. Mr. Carruthers is employed by Base Resources, he holds equity securities in Base Resources, and is entitled to participate in Base Resources' long-term incentive plan and receive equity securities under that plan. Details about that plan are included in the Company's 2019 Annual Report. Mr. Scrimshaw and Mr. Carruthers each have sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are each undertaking to qualify as Competent Persons as defined in the JORC Code and as qualified persons for the purposes of the AIM Rules for Companies. Mr. Scrimshaw and Mr. Carruthers have each reviewed this announcement and consent to the inclusion in this announcement of the South Dune Ore Reserves estimate and supporting information in the form and context in which it appears.

Mineral Resources – Ranobe Deposit

The information in this announcement that relates to the Ranobe Mineral Resources estimate is based on, and fairly represents, information and supporting documentation prepared by Mr. Greg Jones, who acts as Consultant Geologist for Base Resources and is employed by IHC Robbins. Mr. Jones is a Member of The Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code and as a qualified person for the purposes of the AIM Rules for Companies. Mr. Jones has reviewed this announcement and consents to the inclusion in this announcement of the Ranobe Mineral Resources estimate and supporting information in the form and context in which it appears.

Ore Reserves – Ranobe Deposit

The information in this announcement that relates to Ranobe Ore Reserves estimate is based on, and fairly represents, information and supporting documentation prepared by Mr. Chris Sykes and Mr. Scott Carruthers. Mr. Sykes and Mr. Carruthers are both members of The Australasian Institute of Mining and Metallurgy. Mr. Sykes acts as a Consultant Mining Engineer for Base Resources. Mr. Carruthers is employed by Base Resources, he holds equity securities in Base Resources, and is entitled to participate in Base Resources' long-term incentive plan and receive equity securities under that plan. Details about that plan are included in the Company's 2019 Annual Report. Both Mr. Sykes and Mr. Carruthers have sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are each undertaking to qualify as a Competent Person as defined in the JORC Code and as qualified persons for the purposes of the AIM Rules for Companies. Mr. Sykes and Mr. Carruthers have each reviewed this announcement and consent to the inclusion in this announcement of the Ranobe Ore Reserves estimate and the supporting information in the form and context in which the relevant information appears.

Glossary

Assemblage	The relative proportion of valuable heavy mineral components of ilmenite, rutile, zircon and, where applicable, leucoxene.
Competent Person	The JORC Code requires that a Competent Person must be a Member or Fellow of The Australasian Institute of Mining and Metallurgy, or of the Australian Institute of Geoscientists, or of a 'Recognised Professional Organisation'. A Competent Person must have a minimum of five years' experience working with the style of mineralisation or type of deposit under consideration and relevant to the activity which that person is undertaking.
Cut-off grade	The lowest grade of mineralised material that is thought to be economically mineable and available. Typically used by Base Resources to define which material is reported in a Mineral Resource estimate.
Grade	A physical or chemical measurement of the characteristics of the material of interest. In this context, the grade is always a percentage and the characteristics are heavy mineral, oversize, slime and the various product minerals (ilmenite, rutile etc).
Heavy mineral	In mineral sands, minerals with a specific gravity greater than 2.85 t/m ³ .
ILM	Ilmenite, a valuable heavy mineral.
Indicated Resource	An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.
Inferred Resource	An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.
JORC Code	The 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, as published by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia.
LEUC	Leucoxene, a valuable heavy mineral.
Measured Resources	A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.
Modifying Factors	Modifying Factors are considerations used to convert Mineral Resources to Ore Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.
Mineral Resources	Mineral Resources are a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
Ore Reserves	Ore Reserves are those portions of Mineral Resources that, after the application of all Modifying Factors, result in an estimated tonnage and grade which, in the opinion of the Competent Person making the estimates, can be the basis of a technically and economically viable project, after taking account of material relevant Modifying Factors.
OS	Oversize material.
Probable Reserve	A Probable Ore Reserve is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve.
Proved Reserve	A Proved Ore Reserve is the economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors.
RUT	Rutile, a valuable heavy mineral.

SL	Slimes, being a waste product from the processing of mineral sands.
ZIR	Zircon, a valuable heavy mineral.

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This release has been authorised by Base Resources' Disclosure Committee.

About Base Resources

Base Resources is an Australian based, African focused, mineral sands producer and developer with a track record of project delivery and operational performance. The Company operates the established Kwale Operations in Kenya and is developing the Toliara Project in Madagascar. Base Resources is an ASX and AIM listed company. Further details about Base Resources are available at www.baseresources.com.au