BASE RESOURCES

ASX, AIM and Media Release
19 February 2021

Updated Kwale North Dune and maiden Bumamani Mineral Resources estimates

Key Points

- As part of the pre-feasibility study currently underway to assess the viability of mining the Kwale North Dune and Bumamani deposits, seeking to extend the mine life of Kwale Operations, additional drilling and mineralogy assessments have been conducted.
- The Kwale North Dune Mineral Resources estimate has increased by 13% to 194 million tonnes at an average HM grade of 1.5%, containing 2.9Mt HM, based on a 1% HM cut-off grade.
- 99% of the Kwale North Dune Mineral Resources estimate is now reported in the Measured and Indicated categories.
- The maiden Bumamani Mineral Resources estimate is 5.9 million tonnes at an average HM grade of 1.9%, containing 0.115Mt HM, based on a 1% HM cut-off grade.
- The pre-feasibility study for the Kwale North Dune and Bumamani deposits is due for completion early in Q2 2021.

African mineral sands producer, Base Resources Limited (ASX / AIM: BSE) (**Base Resources**) is pleased to provide an update to the Kwale North Dune Mineral Resources (**2021 Kwale North Dune Mineral Resources**) estimate and announce a maiden Bumamani Mineral Resources estimate (**2021 Bumamani Mineral Resources**) at its 100% owned and operated mineral sands operations in Kwale County, Kenya (**Kwale Operations**).

The 2021 Kwale North Dune Mineral Resources and 2021 Bumamani Mineral Resources estimates are being presented together because of the close proximity of the underlying deposits and as these deposits are the subject of a single pre-feasibility study (the **Kwale North Dune PFS**) being undertaken to assess their potential to extend the mine life of Kwale Operations. The Kwale North Dune PFS commenced in early 2020 and is due for completion early in the second quarter of 2021.

Since announcement of the maiden JORC 2012 North Dune Mineral Resources estimate in May 2019 (**2019 Kwale North Dune Mineral Resources**)[1], Base Resources has carried out additional drilling, assaying and mineralogy studies of the Kwale North Dune to improve the confidence of the Mineral Resources estimate and further the Company's understanding of the deposit. As a result of this additional work, 99% of the 2021 Kwale North Dune Mineral Resources estimate is now reported in the Measured and Indicated categories. Material tonnage for the 2021 Kwale North Dune Mineral Resources estimate has also increased by 13% and contained heavy mineral (**HM**) has increased by 12% from the 2019 Kwale North Dune Mineral Resources estimate.

The 2021 Kwale North Dune Mineral Resources are now estimated to be 194 million tonnes (**Mt**) at an average HM grade of 1.5% for 2.9Mt of contained HM, at a 1% HM cut-off grade.

The Bumamani deposit is situated approximately 1.5km south of the North Dune deposit (Figure 1) and was discovered by Base Resources in 2017 when drilling to test for mineralisation in the north-east sector of the Kwale Prospecting Licence PL/2018/0119 (**PL119**). At that time, taking into account the results at hand and the small size of the deposit indicated by such results, it was decided that any Mineral Resources estimate would be deferred until the full drilling program planned for the north-east sector was able to be completed and the full results incorporated into the estimation process. Due to ongoing community access issues, Base Resources has not been able to complete that program. However, with commencement of the Kwale North Dune PFS, the Bumamani deposit has now been revisited due to its proximity to the Kwale North deposit and a Mineral Resources estimate completed to allow its inclusion in that study.

[1] Refer to Base Resources' market announcement "Mineral Resource for Kwale North Dune deposit" released on 1 May 2019, which is available at https://baseresources.com.au/investors/announcements/

The maiden 2021 Bumamani Mineral Resources estimate was developed from 2,977.5m of drilling from 183 holes and is 5.9Mt at an average HM grade of 1.9% for 0.115Mt of contained HM, at a 1% HM cut-off grade.

The 2021 Kwale North Dune Mineral Resources and the 2021 Bumamani Mineral Resources estimates are reported in accordance with the JORC Code. The information prescribed by the ASX Listing Rules, including a summary of the information material to understanding each Mineral Resources estimate in respect of the prescribed matters, is set out in the sections below. For each Mineral Resources estimate, such information should be read in conjunction with the explanatory information provided in respect of the applicable estimate for the purposes of Sections 1 to 3 of Table 1 of the JORC Code - see Appendix 1 to this announcement in the case of the 2021 Kwale North Dune Mineral Resources estimate and Appendix 2 in the case of the 2021 Bumamani Mineral Resources estimate.

Table 1: 2021 Kwale North Dune Mineral Resources estimate compared with the 2019 Kwale North Dune Mineral Resources estimate.

	2021 as at 19 February 2021								2019 as at 1 May 2019							
Category	Tonnes	HM	HM	SL	OS	HM Assemblage			Tonnes	HM	HM	SL	OS	HM Assemblage		
						ILM	RUT	ZIR						ILM	RUT	ZIR
	(Mt)	(Mt)	(%)	(%)	(%)	(%)	(%)	(%)	(Mt)	(Mt)	(%)	(%)	(%)	(%)	(%)	(%)
Kwale North Dune Mineral Resources																
Measured	119	1.8	1.5	37	1	42	13	6	-	-	-	-	-	-	-	-
Indicated	73	1.0	1.4	37	2	50	14	6	136	2.1	1.5	38	2	45	12	5
Inferred	2	0.0	1.2	37	3	50	15	7	34	0.5	1.4	36	3	46	13	6
Total	**194**	**2.9**	**1.5**	**37**	**2**	**45**	**13**	**6**	**171**	**2.6**	**1.5**	**38**	**2**	**45**	**12**	**5**

Table subject to rounding differences, resources estimated at a 1% HM cut-off grade.

Table 2: Maiden 2021 Bumamani Mineral Resources estimate.

	2021 as at 19 February 2021															
Category	Tonnes	HM	HM	SL	OS	HM Assemblage			Tonnes	HM	HM	SL	OS	HM Assemblage		
						ILM	RUT	ZIR						ILM	RUT	ZIR
	(Mt)	(kt)	(%)	(%)	(%)	(%)	(%)	(%)	(Mt)	(Mt)	(%)	(%)	(%)	(%)	(%)	(%)
Bumamani Mineral Resources																
Measured	3.0	66	2.2	19	2	48	15	7.5	N/A							
Indicated	2.6	45	1.7	23	5	47	16	7.7								
Inferred	0.3	4	1.4	27	6	41	14	7.8								
Total	**5.9**	**115**	**1.9**	**21**	**4**	**47**	**15**	**7.6**								

Table subject to rounding differences, resources estimated at a 1% HM cut-off grade.

Further information relevant to both Mineral Resources estimates

Kwale Operations is located on Special Mining Lease 23 (**SML 23**), which lies within PL119. The Prospecting Licence covers an area of 88.7km^2, which includes the Kwale North and Bumamani deposits, and is located approximately 50 kilometres south of Mombasa and approximately 10 kilometres inland from the Kenyan coast (Figure 1).

The Kwale Project initially comprised three areas that contained concentrations of heavy minerals. They were the South Dune, Central Dune (now totally depleted by mining and currently the repository for sand tailings from the South Dune) and the North Dune deposits (Figure 2), with the Bumamani deposit only being discovered in 2017 after mining operations had commenced.

The project was initially owned by Tiomin Resources Inc. (**Tiomin**) which conducted drilling in 1997 and then by Base Titanium Limited (a wholly owned subsidiary of Base Resources) which purchased the project late in 2010 and commenced confirmatory drilling of the Central, South and North Dune deposits. The North Dune deposit was initially excluded from the project's Mineral Resources on the basis of HM grade and the then prevailing economic conditions. However, in 2018, it was decided to re-evaluate the potential of the

North Due in light of improved economic conditions, refined resource definition methodology and with insights gained from five years of operations on the Central Dune. Following that decision, the 2019 Kwale North Dune Mineral Resources estimate was announced.

The rocks of the area are of sedimentary origin and range in age from Upper Carboniferous to Recent. Three divisions are recognised: the Cainozoic rocks, the Upper Mesozoic rocks (not exposed within the area) and the Duruma Sandstone Series giving rise to the dominant topographical feature of the area: the Shimba Hills. The Shimba grits and Mazeras sandstone are of Upper Triassic age and form the Upper Duruma Sandstone.

The Magarini sands form a belt of low hills running parallel to the coast. They rest with slight unconformity on the Shimba grits and Mazeras sandstone. This formation was deposited during Pliocene times and consists mainly of unconsolidated fluviatile sediments derived from the Duruma Sandstone Series.

The Kwale deposits are an aeolian subset of the Magarini sands and are generally poorly stratified and contain a fraction of clay, which for the North Dune and Bumamani deposits is approximately 37% and 21%, respectively. Heavy minerals, mainly ilmenite, rutile and zircon, are locally concentrated and are abundant in some places, giving rise to the deposits.

Further information specific to the 2021 Kwale North Dune Mineral Resources estimate

The geological interpretations for the Kwale North Dune deposit considered the data in the drill logs, HM assay results, microscopic logging of HM sinks, detailed mineralogy and knowledge gained from mining the Central Dune and South Dune deposits. Four geological domains have been identified at the Kwale North Dune deposit. These were used and honoured during the geological modelling (Figure 3).

The uppermost zone at the Kwale North Dune deposit, referred to as Ore Zone 1, is a dark brown, predominantly fine grained, well sorted silty sand with very little induration and is similar to the Ore Zone 1 units in the other Kwale deposits. Mineralogically, it is characterised by clean, glossy and rounded HM grains with an average valuable heavy mineral (**VHM**) content of approximately 75%.

Ore Zone 4 lies below Ore Zone 1, with an indurated paleo-surface separating the two zones, as observed in the field through difficult drill bit penetration, and in HM sink logs, exhibiting elevated iron oxides. The Ore Zone 4 host is higher in slimes with difficult washability and the grain sorting is generally poor. It is slightly lower in VHM content (71%), often with elevated iron oxides and alumino-silicate minerals (kyanite, andalusite and sillimanite). Ore Zone 4 is considered a fluvial deposit based on the difficulty of wash and the poor grain sorting.

Ore Zone 5 lies below Ore Zone 4 and is separated from that zone by a lateritic paleo-surface and is also hosted in a fluviatile clay-rich, poorly sorted formation. It is distinguished mineralogically by an increased amount of almandine garnet that reports to the magnetic fraction, significantly increasing magnesium, manganese, aluminium and silicon in the oxide chemistry. As a result of this, Ore Zone 5 has a notably lower average VHM content (44%).

The Basement Zone lies below Ore Zone 5 and is typically hosted in weathered variants of the Mesozoic (Permo-Triassic) Duruma Sandstones. It does contain mineralisation which was reported in the 2019 Kwale North Dune Mineral Resources estimate as Ore Zone 10. However, it has a VHM content of just 10% being predominantly titano-haematite (<40% TiO_2) to which no value is ascribed, with zircon enrichment in the non-magnetic fraction. This mineralisation was assessed at scoping level. It is not considered to hold potential for eventual economic extraction due to its low VHM content, depth of burial, high slime content (42%), high grade variability, presence of induration and the fact that most of it lies below the water table (significantly increasing the cost and complexity of mining) and is therefore not reported.

For Ore Zones 1, 4 and 5, a strong correlation between the field logs, HM sink logs and XRF oxide chemistry and QEMSCAN mineralogy gives confidence to these interpretations.

Following acquisition of the Kwale Project, subsequent resource drilling by Base Resources' wholly-owned subsidiary, Base Titanium Limited, of the Kwale North deposit was completed using the reverse circulation, air core (**RCAC**) method and conducted in three campaigns: November 2010, December 2012 to April 2013 and June 2018 to May 2019 (Figure 4). A total of 745 holes were drilled for 27,429 metres and generated 15,441 samples for assay. Tiomin drilled 37 holes in 1997 but, due to poor twinned hole assay repeatability at other areas of the Kwale Project, no Tiomin drilling information was used by Base Resources for the 2019 Kwale North Dune Mineral Resources estimate and this is also the case of the 2021 Kwale North Dune Mineral Resources.

The predominantly three metre sample intervals in the 2010 and 2012/13 drilling were replaced by sampling at 1.5 metre intervals for the 2018/19 drill program to provide greater control on geological boundaries. Sample sizes averaged close to 3kg at this sample interval when collecting 25% of the rotary splitter cycle. Samples were dried, weighed, and screened for material less than 45µm (slimes) and +1 mm (oversize).

Approximately 100 grams of the screened sample was subjected to a HM float/sink technique using the heavy liquid, lithium polytungstate (LST) with a specific gravity of 2.85gcm^{-3}. The resulting HM concentrate was dried and weighed as were the other separated constituent size fractions (the minus 45µm material being calculated by difference).

Mineral assemblage analyses were conducted by Base Resources to characterise the mineralogical and chemical characteristics of specific mineral species and magnetic fractions. These mineral assemblage samples were subjected to magnetic separation using a Mineral Technologies induced-roll magnetic separator which captures magnetic (**mag**), middling (**mid**) and non-magnetic (**non-mag**) fractions. The mid and mag fractions were combined and, with the non-mag fraction, were subjected to XRF analysis using a Bruker, S8 Tiger XRF.

Data from the mag and non-mag XRF analyses are processed through an algorithm (**Minmod**) that runs approximately 100,000 iterations in assigning key chemical species to derive a calculated mineralogy determination.

Drill hole collar and geology data was captured by industry-specific, field logging software with on-board validation. Field and assay data were managed in a MS Access database and subsequently migrated to a more secure SQL database.

Standard samples were generated and certified for use in the field and laboratory. Accuracy of HM and slimes (**SL**) analysis was verified by using the standard samples and monitored using control charts. Standard errors greater than three standard deviations from the mean prompted batch re-assay. A standard precision analysis was conducted on the key assay fields: HM, SL and Oversize (**OS**) for both laboratory and field duplicate samples. Normal scatter and QQ plots were prepared for HM, SL and OS for laboratory and field duplicates.

A twin drilling program was introduced for the 2018 program to quantify short-range variability in geological character and grade intersections. A water injection versus dry drilling assessment was included in the twin drilling analysis. Field and laboratory duplicate, standard and twin drilling analysis show adequate level of accuracy and precision to support resource classifications as stated.

A topographic DTM was prepared by Base Resources based on a LIDAR survey.

Construction of the geological grade model was based on coding model cells below open wireframe surfaces, comprising topography, geology (Ore Zones 1, 4, and 5) and basement (Figure 3). Model cell dimensions of 50m x 50m x 1.5m in the XYZ orientations were utilised.

Interpolation was undertaken using various sized search ellipses to populate the model with primary grade fields (HM, SL and OS), and index fields (hardness, induration percent, mineralogy). Inverse distance weighting to a power of three was used for primary assay fields whilst nearest neighbour was used to interpolate index fields. Figure 5 shows an oblique view of the model coloured by HM grades.

A fixed bulk density of 1.7 (t/m^3) was applied to the 2021 Kwale North Dune Mineral Resources model. This bulk density was selected based on operational experience in the Kwale Central and South Dune deposits and because no bulk density sampling was undertaken. This is considered to be a conservative estimate of bulk density.

The Kwale North Dune deposit, being similar in nature to the Kwale South Dune deposit currently being mined, is considered amenable to being mined and processed in the same way. That is, by using the existing plant and equipment at the Kwale Operations: hydraulic mining, spiral concentrator and mineral separation plant with magnetic, electrostatic and further gravity separation. The only departure from current methodology is that, for the Kwale North Dune deposit, the fine and coarse tailings are likely to be co-disposed together. Apart from that, there is no indication that the mining, metallurgical and operating cost modifying factors for the Kwale North deposit would be materially different to those derived from mining the Kwale South Dune deposit.

The criteria used for classification was primarily the drill spacing (predominantly 100m x 100m) and sample interval (predominantly 1.5m), with consideration also given to the continuity of mineral assemblage information. The ore zones exhibit spatially different classifications mainly because of differing density of mineralogical information and variography. The reason for the increased material tonnes between the 2019 and 2021 Kwale North Dune Mineral Resources estimates is that the area covered by assays has increased. The reason for the increased confidence levels in the 2021 Kwale North Dune Mineral Resources estimate is refined variography assessments for Ore Zones 1 and 5 which indicate increased ranges in the primary and/or secondary directions of grade continuity compared to the 2019 Kwale North Dune Mineral Resources. The 2021 Kwale North Dune Mineral Resources estimate used a 1% HM bottom cut because the economic cut-off grade at the nearby Kwale South Dune deposit mine is near to this, and resource estimates for Kwale Operations have historically been reported at this cut-off grade. Figures 4, 6 and 7 show the distribution of the resource classifications for Ore Zones 1, 4 and 5, respectively.

Further information specific to the 2021 Bumamani Mineral Resources estimate

The geological interpretations for the Bumamani deposit considered the data in the drill logs, HM assay results, microscopic logging of HM sinks, detailed mineralogy and knowledge gained from mining the Central Dune and South Dune deposits. Three geological domains have been identified at the Bumamani deposit. These were used and honoured during the geological modelling (Figure 8).

The uppermost zone at the Bumamani deposit, referred to as Ore Zone 1 (Figure 9), is a dark brown, predominantly fine grained, well sorted silty sand with very little induration and is similar to the Ore Zone 1 units in the other Kwale deposits. It averages 1.9% HM, 21% SL and 4% OS. The zone gets sandier to the east with reduced silt content. Mineralogically it is characterised by clean, glossy and rounded HM grains with an average VHM content of approximately 70% VHM.

Ore Zone 4 (Figure 10) lies below Ore Zone 1, with the two zones separated by a lateritic paleo-surface which may imply a time-gap in depositional history. Ore Zone 4 is a fluviatile unit represented locally with poorly sorted sandy clays and gritty sands. The Ore Zone 4 domain averages 1.8% HM, 23.6% SL and 6.4% OS. Ore Zone 4 is mineralogically similar to Ore Zone 1.

The Basement Zone at the Bumamani deposit lies beneath Ore Zone 4 and comprises compacted clays, sandy-clays, limestone and fluvial sands. The grain sizes range from silt to pebbles and boulders, with generally poor sorting and is characterised by trace concentrations of HM typically with low VHM content.

For Ore Zones 1 and 4, a strong correlation between the field logs, HM sink logs and XRF oxide chemistry and QEMSCAN mineralogy gives confidence to these interpretations.

Drilling by Base Resources' wholly-owned subsidiary, Base Titanium Limited, of the Bumamani deposit was completed using the RCAC method and conducted in two campaigns in 2017 and 2018, both employing 76mm diameter, 3m long NQ drill rods. A total of 183 holes were drilled for 2,977.5m at 1.5m sampling intervals and generated 1,968 assayed samples. Holes were drilled 50m apart on lines 100m apart. Samples were split using a rig mounted rotary splitter which delivered an average of 2.7kg of dry sample per interval. Samples were dried, weighed, and screened for material less than 45µm (slimes) and +1mm (oversize).

Approximately 100 grams of the screened sample was subjected to a HM float/sink technique using the heavy liquid, lithium polytungstate (LST) with a specific gravity of 2.85gcm^{-3}. The resulting HM concentrate was dried and weighed as were the other separated constituent size fractions (the minus 45µm material being calculated by difference).

Mineral assemblage analyses were conducted by Base Resources to characterise the mineralogical and chemical characteristics of specific mineral species and magnetic fractions. These mineral assemblage samples were subjected to magnetic separation using a Mineral Technologies induced-roll magnetic separator which captures mag, mid and non-mag fractions. The mid and mag fractions were combined and, with the non-mag fraction, were subjected to XRF analysis using a Bruker, S8 Tiger XRF.

Data from the mag and non-mag XRF analyses was processed through the Minmod algorithm that runs approximately 100,000 iterations in assigning key chemical species to derive a calculated mineralogy determination.

Drill hole collar and geology data was captured by industry-specific, field logging software with on-board validation. Field and assay data were managed in a MS Access database and subsequently migrated to a more secure SQL database.

Standard samples were generated and certified for use in the field and laboratory. Accuracy of HM and SL analysis was verified by using the standard samples and monitored using control charts. Standard errors greater than three standard deviations from the mean prompted batch re-assay. A standard precision analysis was conducted on the key assay fields: HM, SL and OS for both laboratory and field duplicate samples. Normal scatter and QQ plots were prepared for HM, SL and OS for laboratory and field duplicates.

A twin drilling program was introduced for the 2018 program to quantify short-range variability in geological character and grade intersections. A water injection versus dry drilling assessment was included in the twin drilling analysis. Field and laboratory duplicate, standard and twin drilling analysis show adequate level of accuracy and precision to support resource classifications as stated.

A topographic DTM was prepared by Base Resources based on a LIDAR survey.

Construction of the geological grade model was based on coding model cells below open wireframe surfaces, comprising topography, geology (Ore Zones 1 and 4) and basement (Figure 8). Model cell dimensions of 50m x 50m x 1.5m in the XYZ orientations were utilised.

Interpolation was undertaken using various sized search ellipses to populate the model with primary grade fields (HM, SL and OS), and index fields (hardness, induration percent, mineralogy). Inverse distance weighting to a power of three was used for primary assay fields whilst nearest neighbour was used to interpolate index fields. Figure 11 shows an oblique view of the model coloured by HM grade.

A fixed bulk density of 1.7 (t/m^3) was applied to the 2021 Bumamani Mineral Resources estimate model. This bulk density was selected based on operational experience in the Kwale Central and South Dune deposits and because no bulk density sampling was undertaken. This is considered to be a conservative estimate of bulk density.

The Bumamani deposit, being similar in nature to the Kwale South Dune deposit currently being mined, is considered amenable to being mined and processed in the same way. That is, by using the existing plant and equipment at the Kwale Operations: hydraulic mining, spiral concentrator and mineral separation plant with magnetic, electrostatic and further gravity separation. The only departure from current methodology is that, for the Bumamani deposit (like for the Kwale North Dune deposit), the fine and coarse tailings are likely to be co-disposed together. Apart from that, there is no indication that the mining, metallurgical and operating cost modifying factors for the Bumamani deposit would be materially different to those derived from mining the Kwale South Dune deposit.

The criteria used for classification was primarily the drill spacing (predominantly 100m x 50m) and sample interval (1.5m), with consideration also given to the continuity of mineral assemblage information. The ore zones exhibit spatially different classifications mainly because of differing density of mineralogical information. The 2021 Bumamani Mineral Resources estimate used a 1% HM bottom cut because the economic cut-off grade at the nearby Kwale South Dune deposit mine is near to this, and resource estimates for Kwale Operations have historically been reported at this cut-off grade. Figures 9 and 10 show the distribution of the resource classifications for Ore Zones 1 and 4 respectively.

Competent Persons' Statements

2021 Kwale North Dune Mineral Resources estimate

The information in this announcement that relates to the 2021 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 Fellow of The Australasian Institute of Mining and Metallurgy and has sufficient experience that is relevant to the style of mineralisation, type of deposits under consideration and 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 2021 Kwale North Dune Mineral Resources estimate and supporting information in the form and context in which that information appears.

2021 Bumamani Mineral Resources estimate

The information in this announcement that relates to the 2021 Bumamani 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, 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' 2020 Annual Report. Mr. Carruthers has sufficient experience that is relevant to the style of mineralisation, type of deposits under consideration and 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 2021 Bumamani Mineral Resources estimate and supporting information in the form and context in which that information appears.

Forward Looking Statements

Certain statements in or in connection with this announcement contain or comprise forward looking statements.

By their nature, forward looking statements involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future and may be outside Base Resources' control. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in product prices and exchange rates and business and operational risk management. Subject to any continuing obligations under applicable law or relevant stock exchange listing rules, Base Resources undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after the date of this announcement or to reflect the occurrence of unanticipated events.

No representation or warranty, express or implied, is made as to the fairness, accuracy or completeness of the information contained in this announcement (or any associated presentation, information or matters). To the maximum extent permitted by law, Base Resources and its related bodies corporate and affiliates, and their respective directors, officers, employees, agents and advisers, disclaim any liability (including, without limitation, any liability arising from fault, negligence or negligent misstatement) for any direct or indirect loss or damage arising from any use or reliance on this announcement or its contents, including any error or omission from, or otherwise in connection with, it.

Nothing in this announcement constitutes investment, legal or other advice. You must not act on the basis of any matter contained in this announcement but must make your own independent investigation and assessment of Base Resources and obtain any professional advice you require before making any investment decision based on your investment objectives and financial circumstances. This announcement does not constitute an offer, invitation, solicitation, advice or recommendation with respect to the issue, purchase or sale of any security in any jurisdiction.

Figure 1: Wider Kwale location showing the South Dune, North Dune and Bumamani deposits, and the Kwale Central sand tails area.

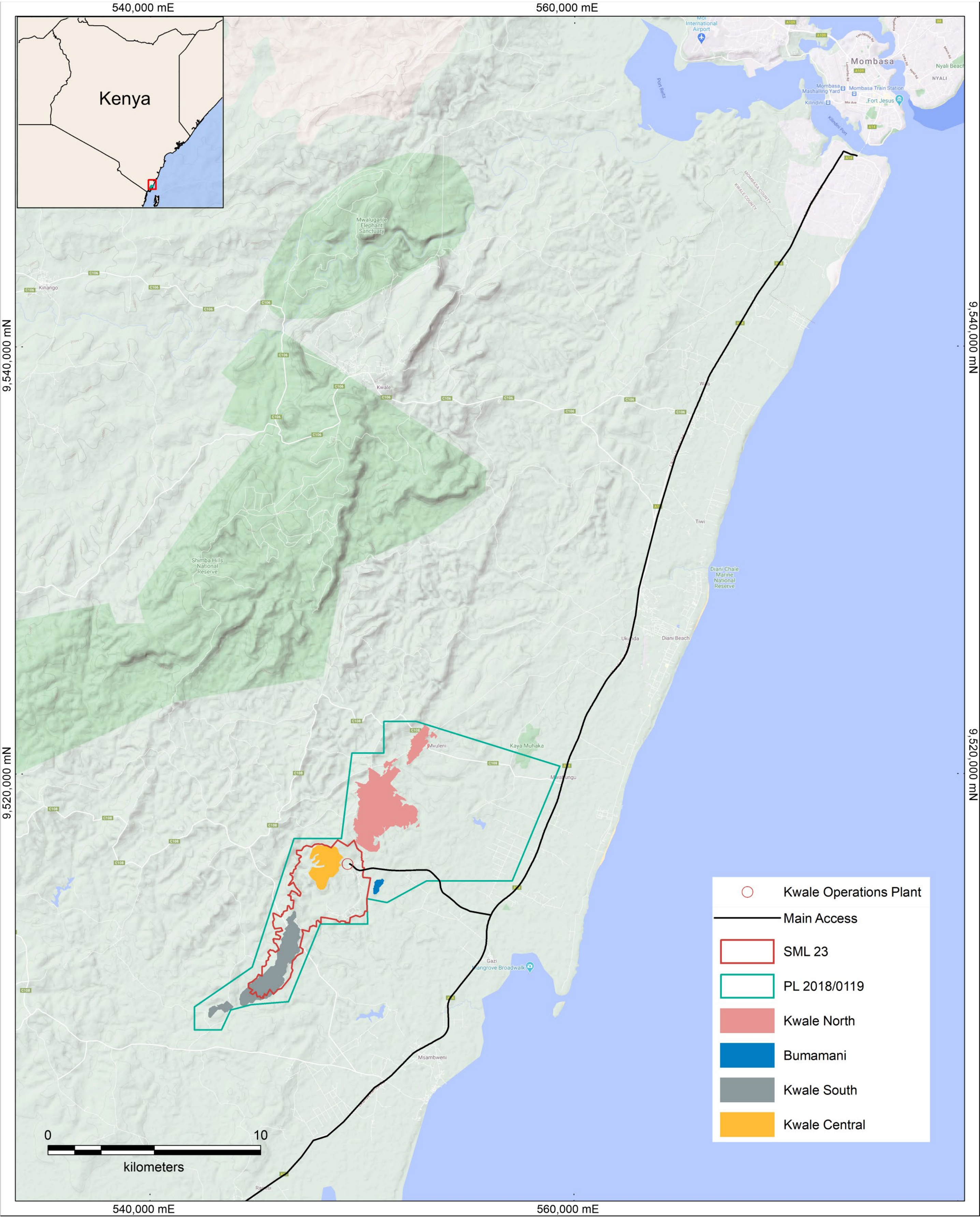


Figure 2: Plan showing concentrations of heavy minerals at Kwale Operations.

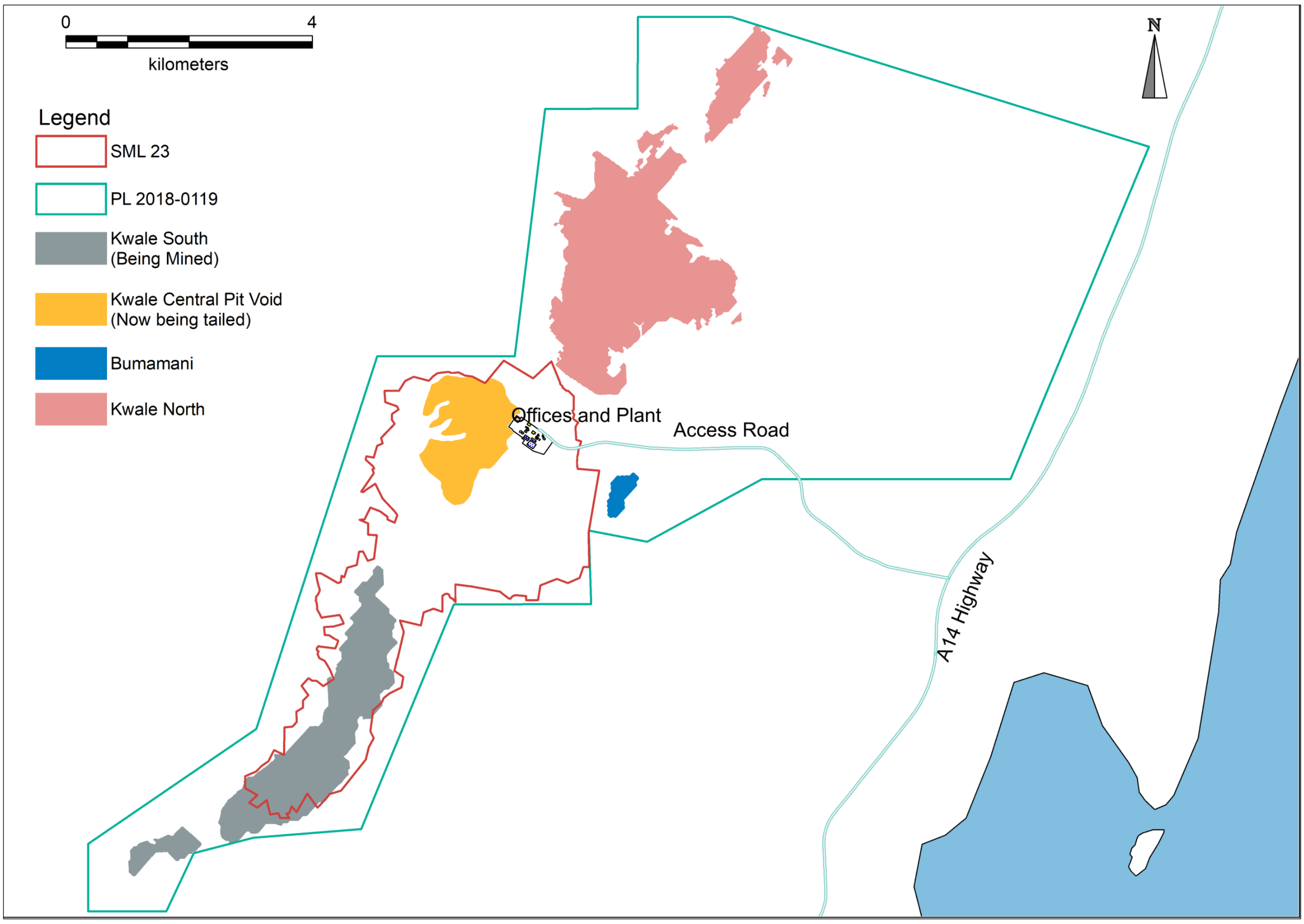


Figure 3: Schematic cross-section of the Kwale North Dune deposit showing geology relationships between geological domains.

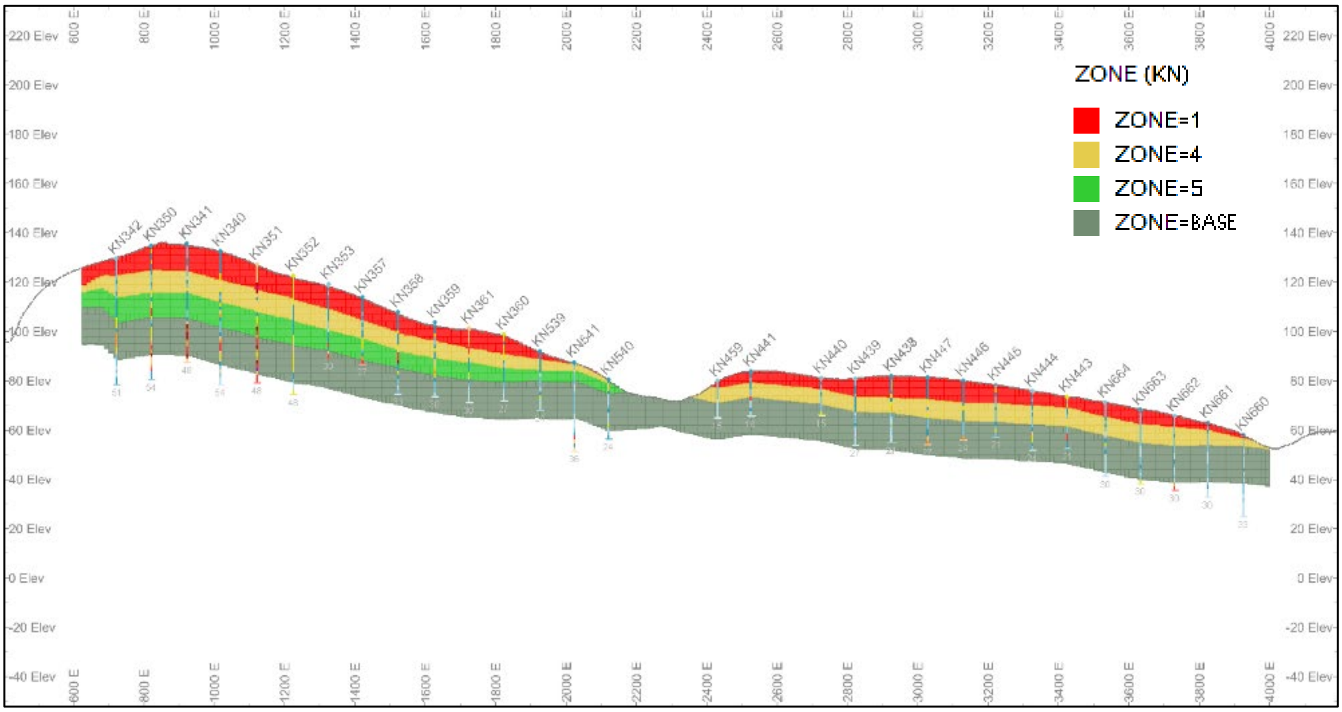


Figure 4: Map showing Kwale North Dune deposit, location of drill holes, tenure boundaries and Resources category for Ore Zone 1.

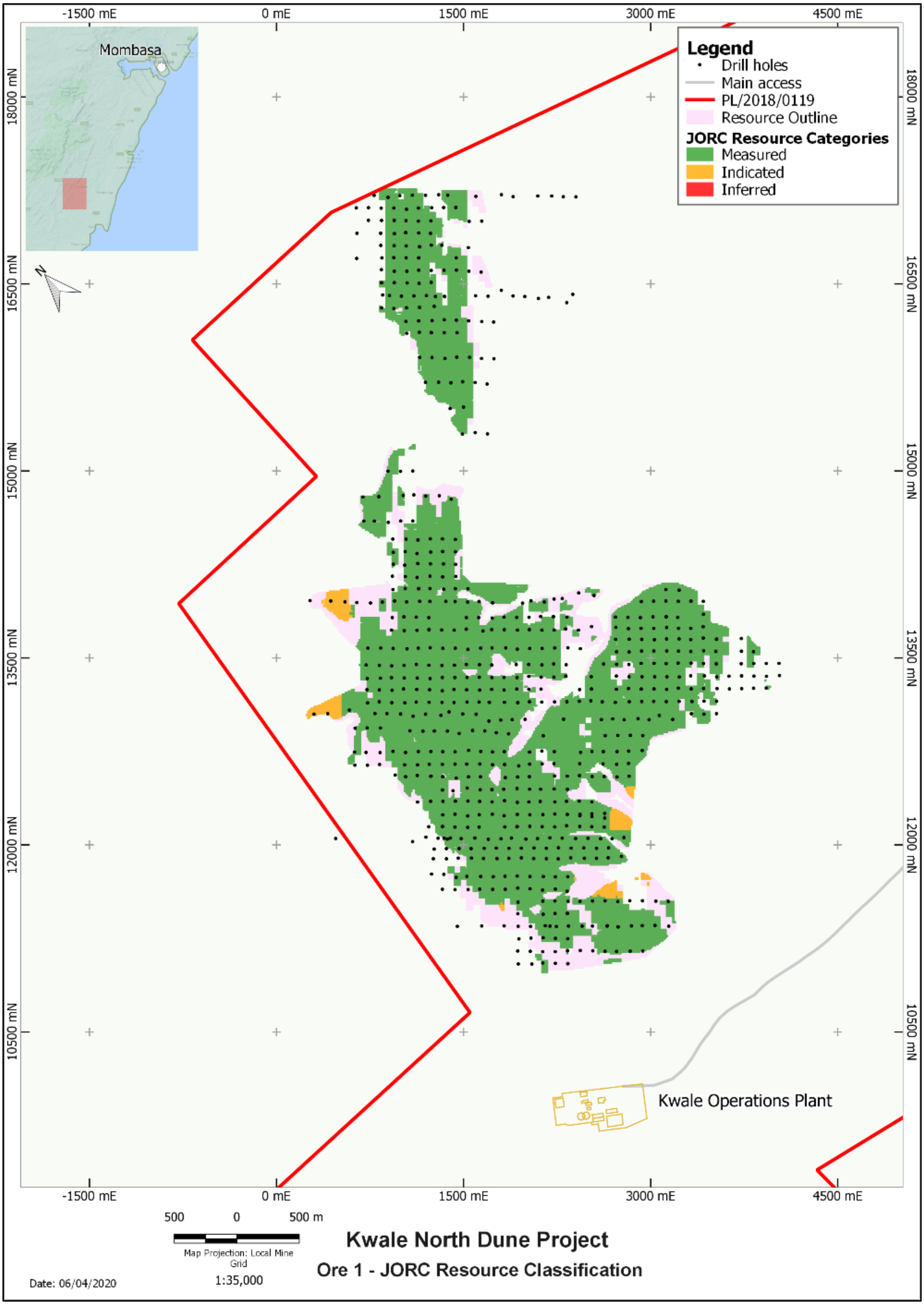


Figure 5: Oblique view of Kwale North with model cells coloured on HM grade.

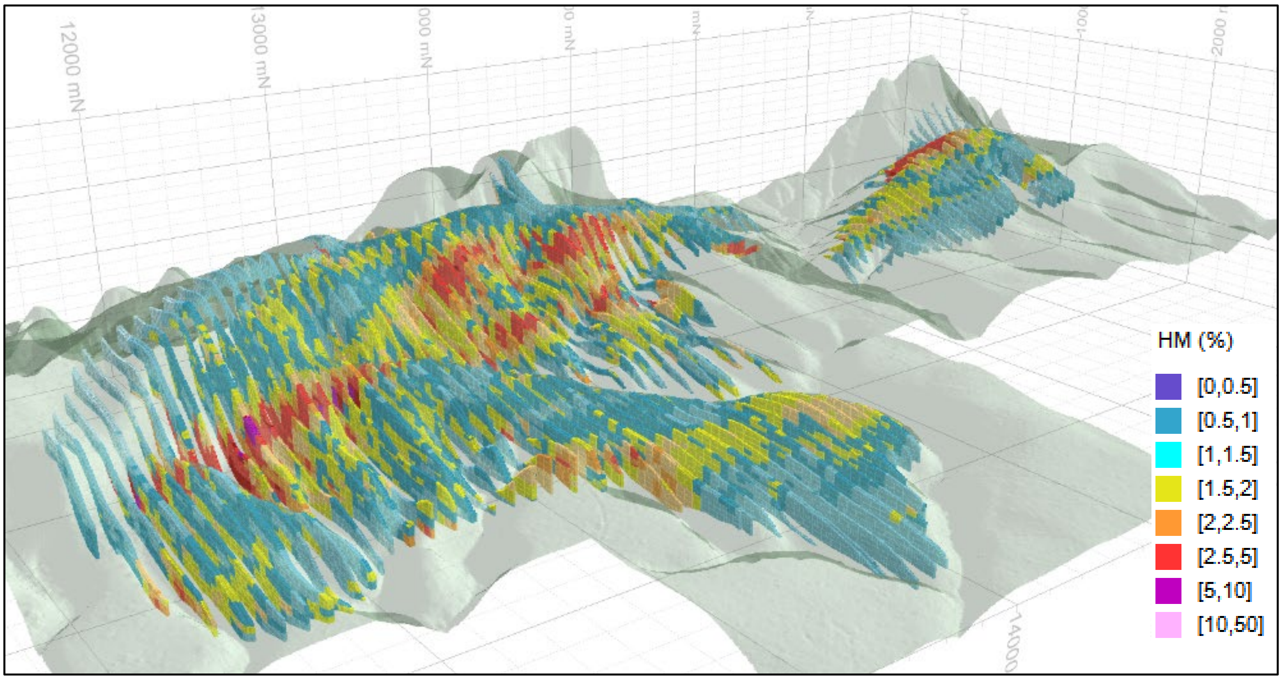


Figure 6: Map showing Kwale North Dune deposit, location of drill holes, tenure boundaries and Resources category for Ore Zone 4.

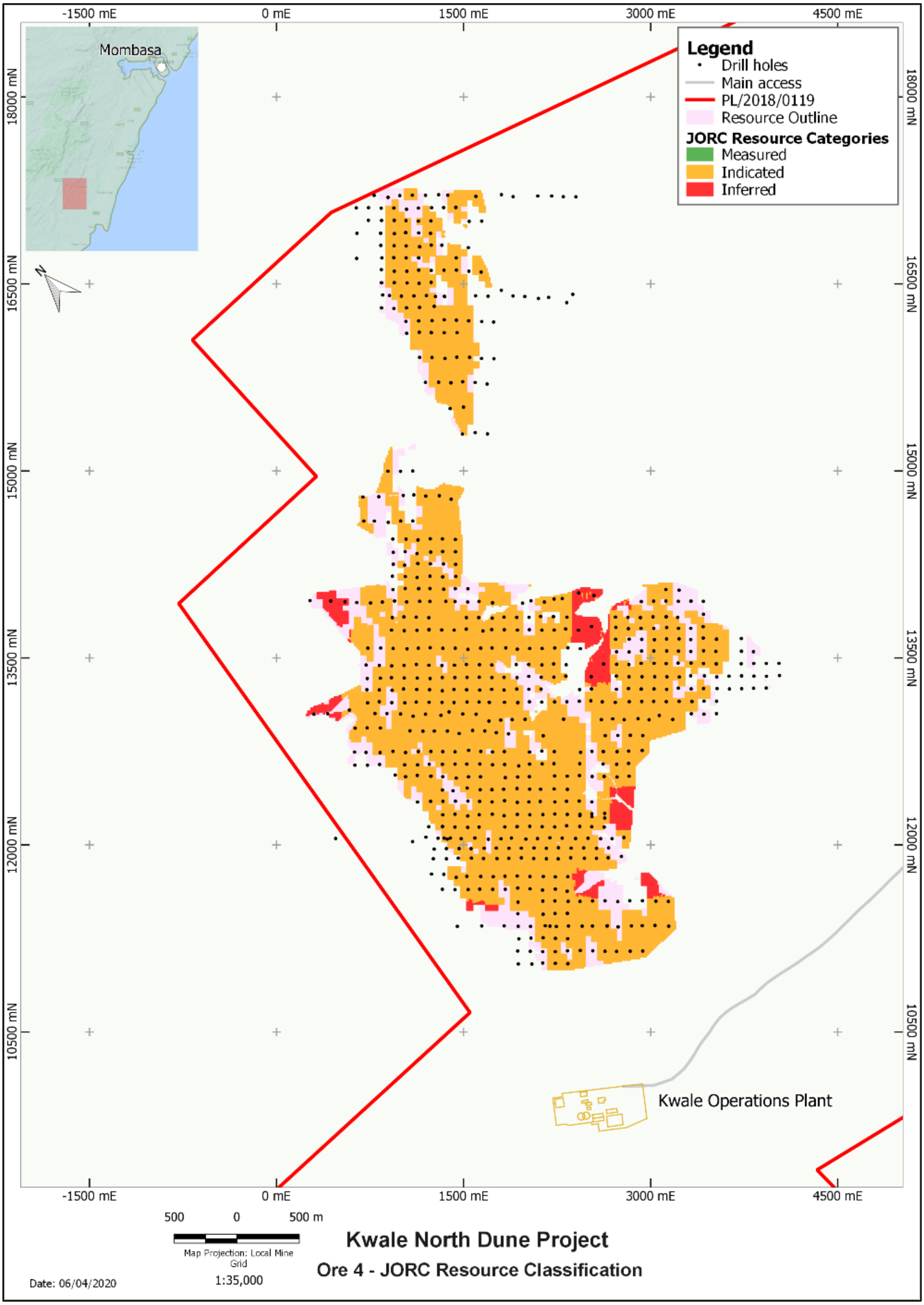


Figure 7: Map showing Kwale North Dune deposit, location of drill holes, tenure boundaries and Resources category for Ore Zone 5.

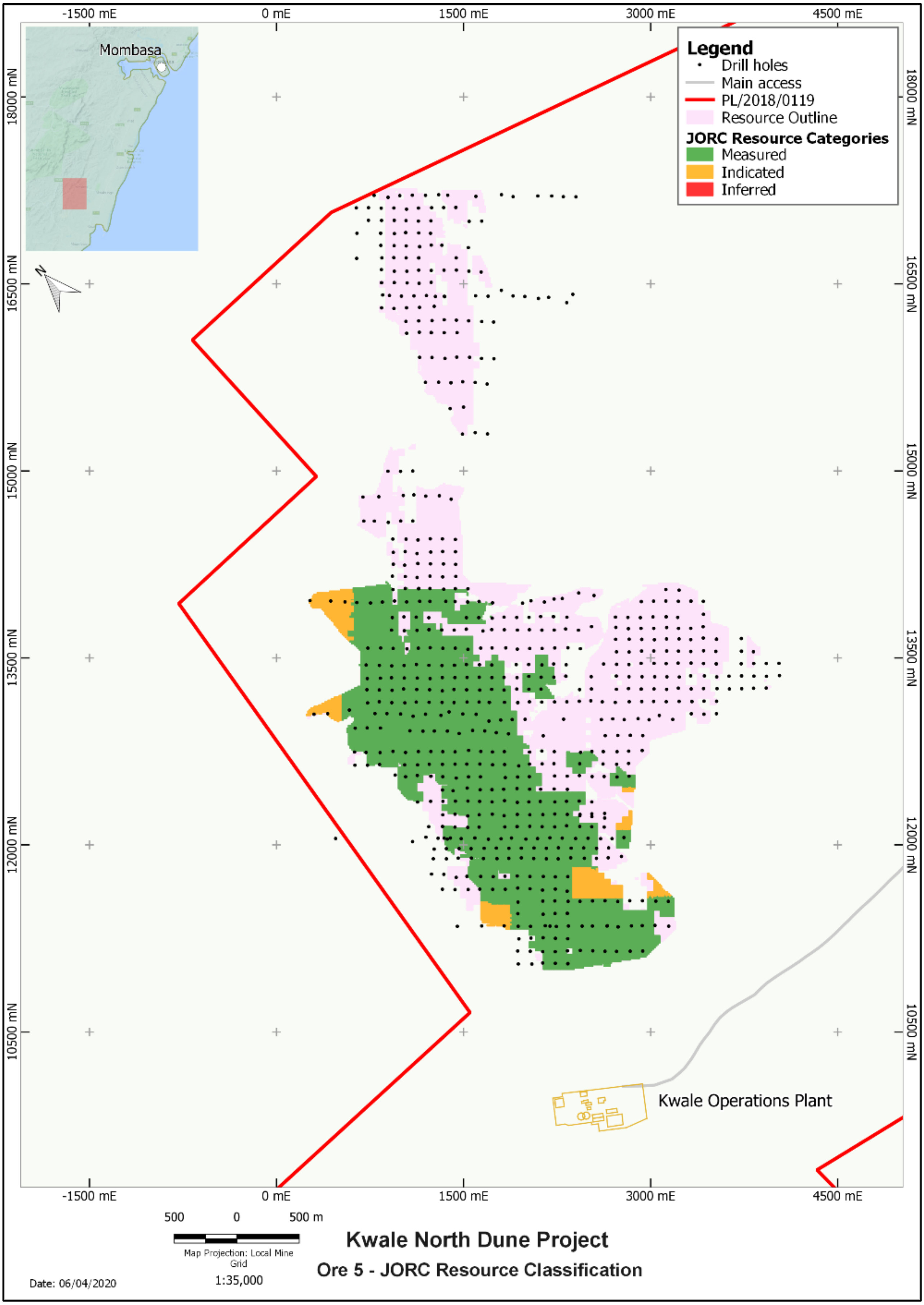


Figure 8: Schematic cross-section of the Bumamani deposit showing geology relationships between geological domains.

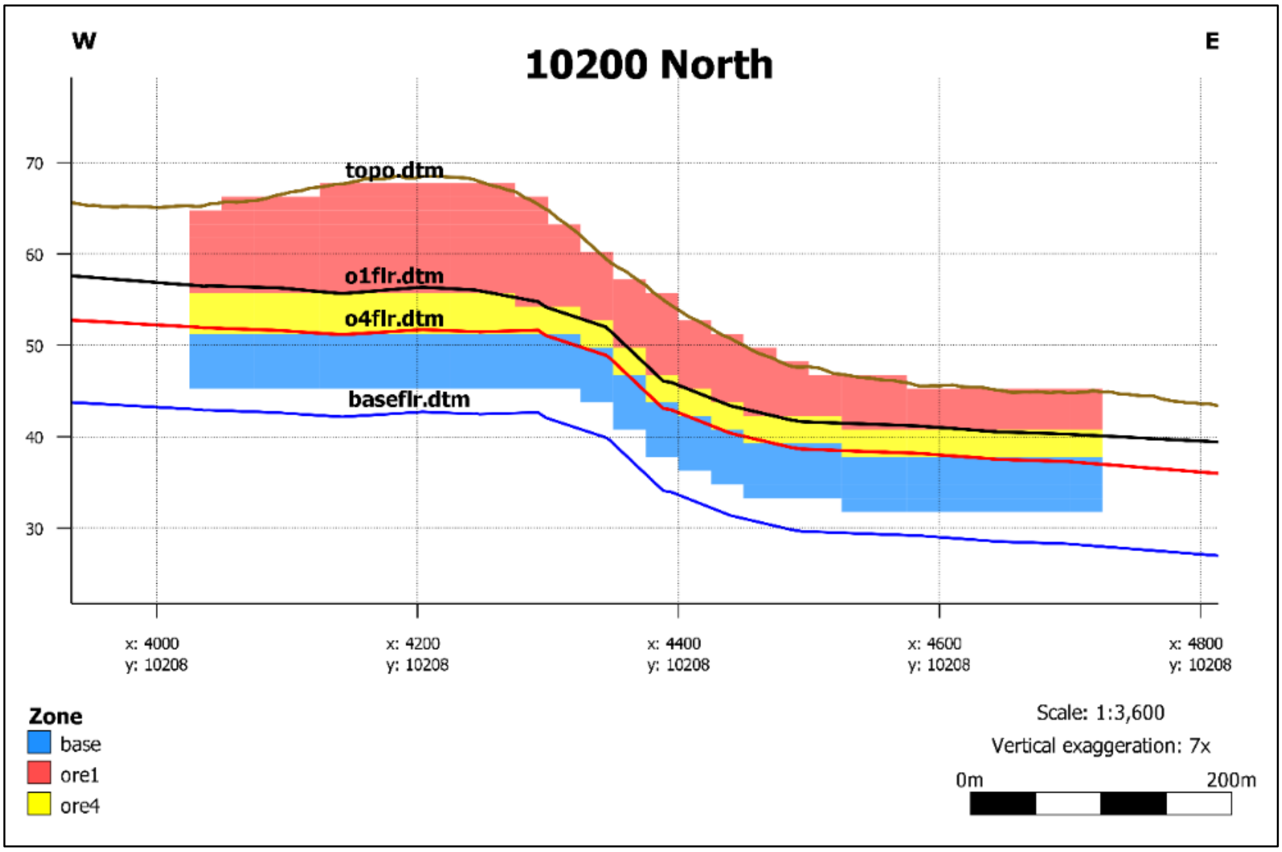


Figure 9: Map showing Bumamani deposit, location of drill holes, tenure boundaries and Resources category for Ore Zone 1.

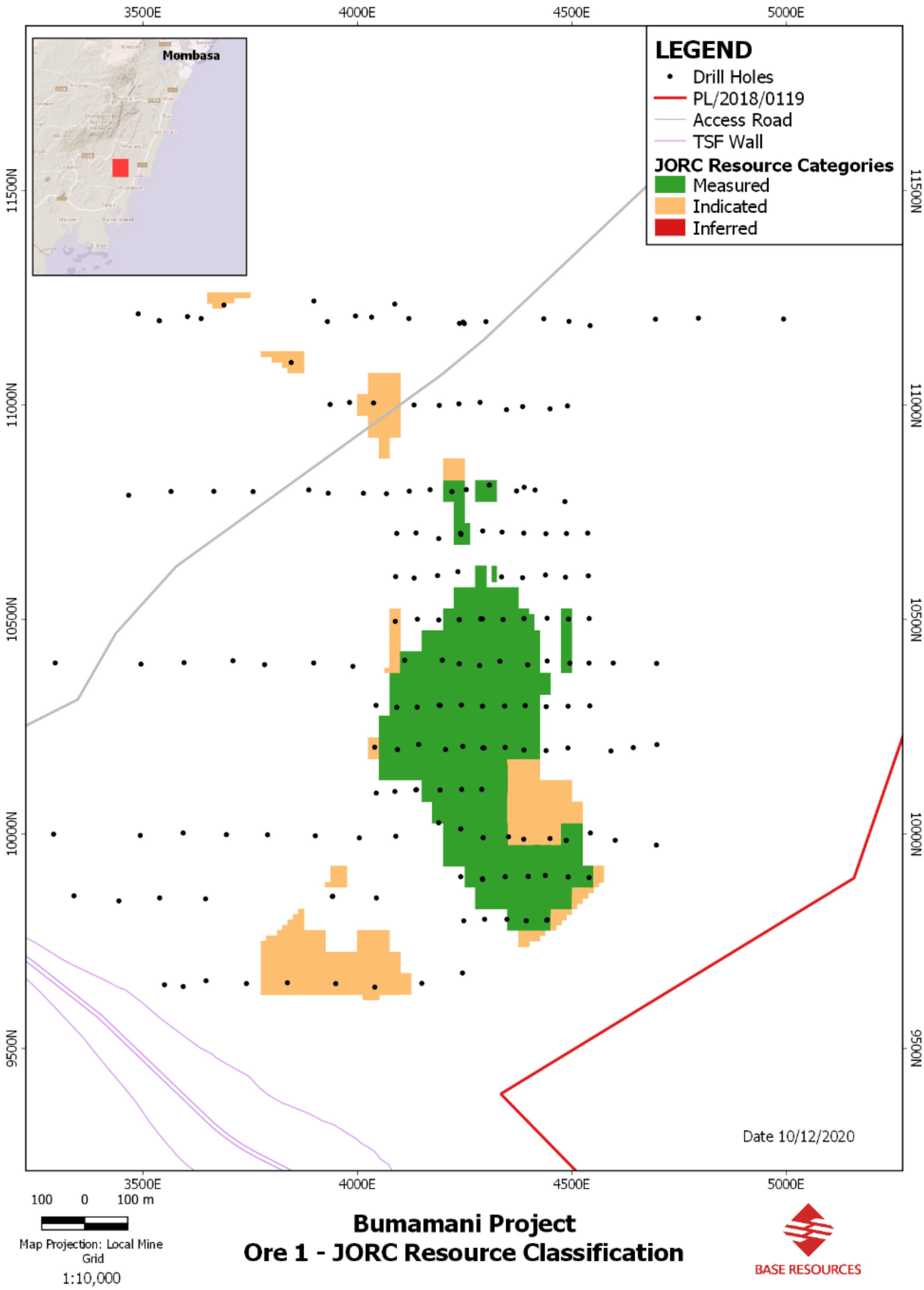


Figure 10: Map showing Bumamani deposit, location of drill holes, tenure boundaries and Resources category for Ore Zone 4.

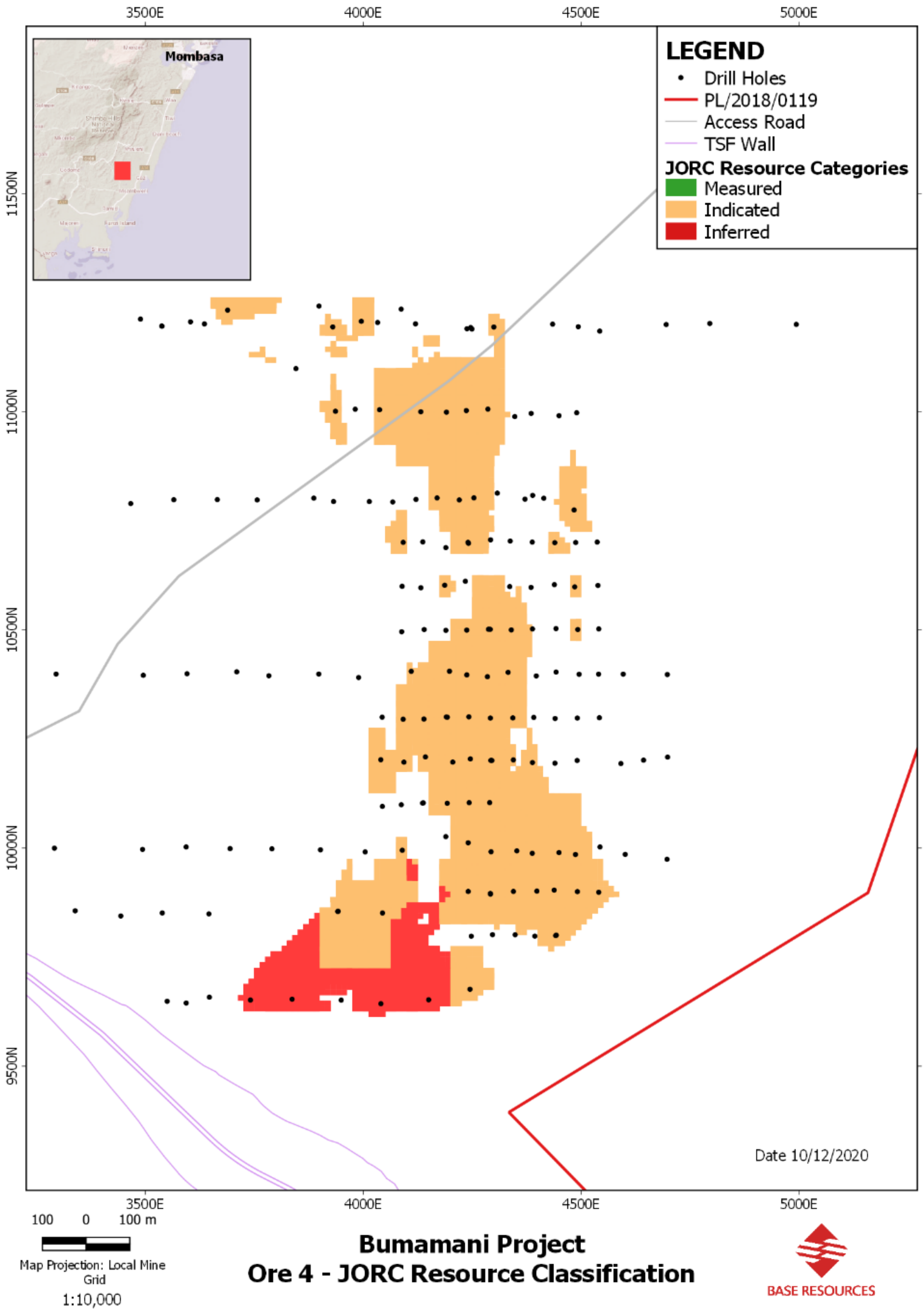
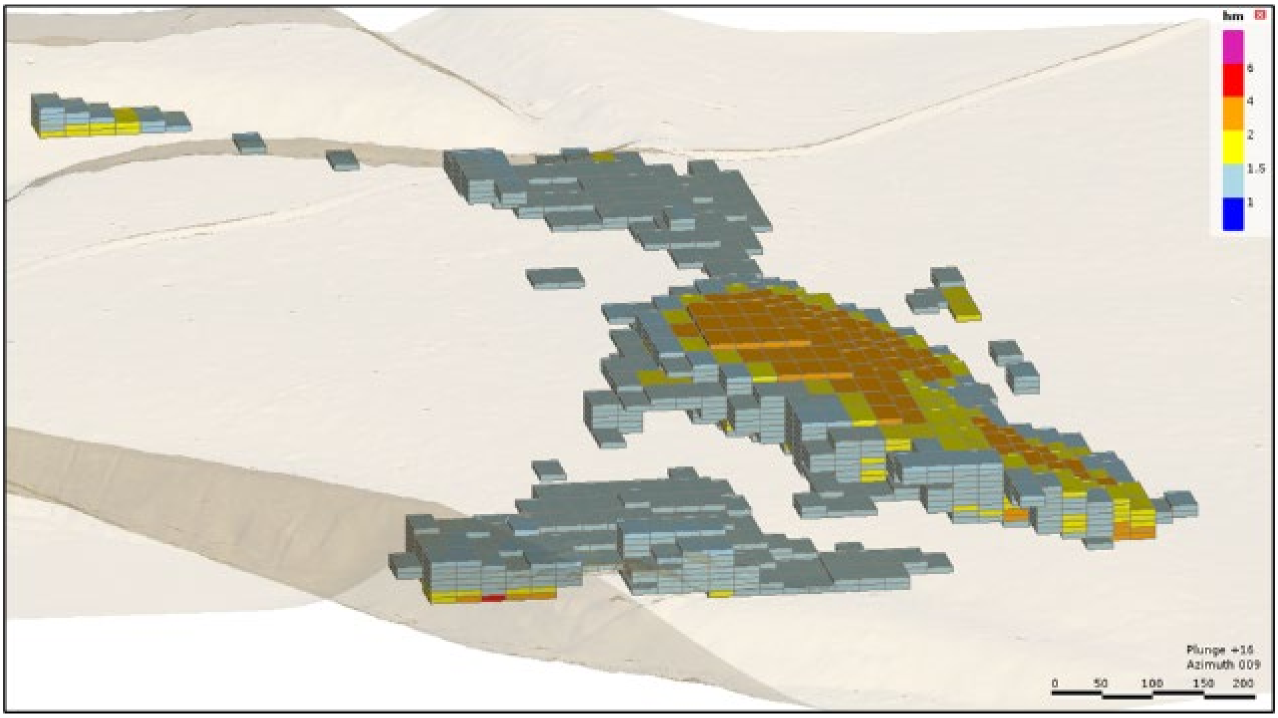


Figure 11: Bumamani deposit oblique view with model cells coloured on HM grade.



Appendix 1 – 2021 Kwale North Dune Mineral Resources estimate

JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

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

Criteria	Explanation	Comment
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.*	Reverse circulation aircore drilling was used to collect downhole samples for the project. Of the 745 drill holes used for this resource update, 21 of them (drilled between 2010 – mid 2012) utilised 3m sample intervals. The remaining 724 drill holes used 1.5m sample intervals from mid-2012 to 2019 using an on-board rotary splitter mounted beneath the rig cyclone. Sample gates were set to collect 25% of the splitter cycle, which delivered about 2.5 - 3.5kg of sample per interval on average. Duplicate samples were collected at the splitter for every 20th sample simultaneously with the original sample. A representative grab sample from the sample bags was routinely washed and panned for a visual HM content estimate.
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).*	122 holes in the 2010, 2012/2013 campaigns were drilled with a RCAC Wallis Mantis 75 drill rig using NQ drill tooling of about 76mm in diameter. 567 holes in the 2018 campaign and the 56 holes in the 2019 campaign were drilled with a more modernised Mantis 80 drill rig, also using NQ drill bits. For the 2010 and 2012/13 campaigns, the mast was oriented vertically (90º) by sight. For the 2018/19 drilling campaign, the rig mast was orientated vertically by spirit level prior to drilling to adhere to best practice for geological boundary delineation. Drilling was recorded in geological logs as either dry or water injected, depending on ground

Criteria	Explanation	Comment
		conditions. Water injection was employed to assist with penetration through clays/rock and maintain sample quality and delivery.
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.*	Sample condition was logged at the rig as either good, moderate or poor, with good meaning not contaminated and appropriate sample size (recovery), moderate meaning not contaminated, but sample over or under sized, and poor meaning contaminated or grossly over/undersized. Slightly damp ground conditions with approximately 36% silt/clay meant that best sample quality was found to be achieved via slow penetration with water injection to aid in the sample recovery. No relationship is believed to exist between grade and sample recovery. No bias is also believed to occur due to loss of fine material.
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.*	Field logging was recorded for all 16,257 fixed, down-hole intervals and was conducted as drilling and sampling proceeded. Logging was based on a representative grab sample that was panned for heavy mineral estimation and host material observations. Logging codes were designed to capture observations on lithology, colour, grainsize, induration and estimated mineralisation. Any relevant comments e.g., water table, gangue HM components and stratigraphic markers were included to aid in the subsequent geological modelling. A qualitative estimate of how representative a sample was of the drilled interval was recorded by Base Titanium Limited (BTL) field geologists whilst logging. This sample condition field records whether the hole was drilled with injected water or dry and sample size (and the influence of contamination or sample loss) directs the quality assessment of each sample. Heavy mineral sinks from assayed samples were logged routinely under a reflected-light, stereoscopic microscope. This work was carried out to capture information relating to VHM content, mineralogy, HM grainsize and quality.

Criteria	Explanation	Comment
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.*	Rotary split at the sampling cyclone on the rig. Approximately 25% of the original sample retained. Duplicate samples were collected at every 20th sample. The drill rods and cyclone were routinely cleaned between holes using pressurised water to avoid inter-hole contamination. The sample size is considered appropriate for the grain size of the material because the grade of HM is measured in per cent, and a 2.5-5kg sample contains in excess of 50 million grains of sand. The sample preparation flow sheet departed from standard mineral sand practices in one respect; the samples were not oven dried prior to de-sliming, to prevent clay minerals being baked onto the HM grains (because the HM fractions were to be used in further mineralogical test work). Instead, a separate sample was split and dried to determine moisture content, which was accounted for mathematically. Pre-soaking of the sample Sodium (Tetra) Pyrophosphate (**TSPP**) dispersant solution ensured a more efficient de-sliming process and to avoid potentially under-reporting slimes content.
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.*	The assay process employed included a Sample Preparation stage, completed by BTL staff, followed by a heavy liquid separation (using lithium polytungstate: SG = 2.85g/cm3), completed at Kwale Operations' site laboratory. Improvements to the sample preparation stage were made to ensure industry best practice and to deliver a high degree of confidence in the results. These included the following: • A formalised process flow was generated, posted in all sample preparation areas and used to train and monitor sample preparation staff • Regular monitoring was completed by BTL senior staff • Field samples were left in their bags for initial air-drying to avoid sample loss • TSPP was introduced to decrease attrition time and improve slimes recovery. A range of attrition times (with 5% TSPP) were trialled and plotted against slimes recovery figures to determine optimum attrition time (15 minutes) • Staff were trained to use paint brushes and water spray rather than manipulate sample through slimes screen by hand to remove the potential for screen damage

Criteria	Explanation	Comment
		• A calibration schedule was introduced for scales used in the sample preparation stage • The introduction of ruggedized computers allowed the capture of sample preparation data digitally at inception. This greatly reduced the instance of scribe and data entry errors • Slimes screen number recorded to isolate batches should re-assay be required due to poor adherence to procedure or to identify screen damage • Various quality control samples were submitted routinely to assure assay quality. A total of 809 duplicate field samples, 809 lab duplicate sample preparation samples, 279 field certified standard samples, and an unspecified number of internal laboratory standards, repeats and blanks have been assayed at Kwale Operations' site laboratory.
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.*	The Kwale North Dune deposit is a moderate to low HM grade, dunal-style accumulation that does not carry excessive mineralisation or suffer from 'nugget' effects, typical of other commodities. No external audit validation was completed for the HM analyses included in the 2021 Kwale North Dune Mineral Resources estimate. This is not considered material given the adequate performance of results from extensive QA/QC verification and on account of low HM grade variance and deposit homogeneity. A twin drill hole procedure was introduced for the 2018/19 program at a recommended rate of 5% of the total number of holes. These twins were used to quantify short-range variability in geological character and grade intersections and ideally should be placed throughout the deposit. A total of 41 twin drill holes were completed during the 2018/19 Kwale North Dune drilling program, which represents about 5.7% of the total program. The spatially well-represented twin hole paired data shows very good correlation considered material to the integrity/quality of the resource data.

Criteria	Explanation	Comment
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.*	Proposed drill holes were sited on the ground using hand-held GPS. After drilling, surveyors recorded collar positions via DGPS RTK unit registered to local base stations. The accuracy of the DGPS unit is stated at 0.02m in the X, Y and Z axes. The survey Geodetic datum utilised was UTM Arc 1960, used in E. Africa. Arc 1960 references the Clark 1880 (RGS) ellipsoid and the Greenwich prime meridian. All survey data used in the 2021 Kwale North Mineral Resources estimate dataset has undergone a transformation to the local mine grid from the standard UTM Zone 37S (Arc 1960). The local Grid was rotated 42.5^{o}, which aligns the average strike of the deposit with local North and is useful for both grade interpolation and mining reference during production. All drill collars were projected to the local LIDAR survey, digital terrain model, captured over the resource area in 2018/19 at a 2x2m grid spacing. This was performed prior to interpretation and model construction to eliminate any elevation disparities for the block model construction.
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 drill data spacing for the 2018/19 Kwale North Resource drilling was nominally 100m X, 100m Y and 1.5m Z. Variations from this spacing resulted from terrain/traverse difficulties and ground access. A sample spacing of 3m, with occasional 1.5m intervals at geological contacts, was employed in the 2012/2013 drilling campaign by BTL. A 3m, down-hole block size was applied to model construction and for consistency in the interpolation processes. This spacing and distribution is considered sufficient to establish the degree of geological and mineralisation continuity appropriate for the resource estimation procedures and classifications applied. No sample compositing has been applied for HM, slimes and oversize in the interpolation processes.
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*	With the geological setting being a layered dunal/fluviatile sequence, the orientation of the deposit mineralisation in general is sub-horizontal. All drill holes were orientated vertically to penetrate the sub-horizontal mineralisation orthogonally. Hole centres were spaced nominally at 100m. This cross-profiles the dune so that variation can be determined. Down hole intervals were nominated as 1.5m. This provides adequate sampling resolution to capture the distribution and variability of geology units and mineralisation

Criteria	Explanation	Comment
	introduced a sampling bias, this should be assessed and reported if material.	encountered vertically down hole. The orientation of the drilling is considered appropriate for testing the horizontal and vertical extent of mineralisation without bias.
Sample security	*The measures taken to ensure sample security.*	Sample residues from the prep stage were transferred to pallets and stored in a locked shed beside the warehouse at Kwale Operations. Residues from the Kwale Operations site laboratory were placed in labelled bags and stored in numbered boxes. Boxes were placed into a locked container beside the laboratory. Sample tables are housed on a secure, network-hosted SQL database. Administration privileges are limited to two BTL staff: Exploration Superintendent and the Business Applications Administrator. Data is backed up every 12 hours and stored in perpetuity on a secure, site backup server.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	In-house reviews were undertaken by the Base Resources' Resources Manager, Mr. Scott Carruthers who is a Competent Person under the JORC Code.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Explanation	Comment
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 Kwale North Dune is situated on a Prospecting License (PL) 100% owned by Base Titanium Limited – PL/2018/0119 located in Kwale County, Kenya. Base Titanium Limited is a wholly owned subsidiary of Australian and UK-listed resources company, Base Resources Limited. The 88.7 km^2 Prospecting License was granted on the 26th of May 2018 for a three-year term ending 25th May 2021. The PL is in good standing with the Kenya Ministry of Petroleum & Mining at the time of reporting, with all statutory reporting and payments up to date. Local landowners generally supportive of exploration activities with over 90% of planned holes drilled. The existing Special Mining Lease 23 lies within the Prospecting license area and covers the Kwale Central Dune deposit and some of the Kwale South Dune deposit but does not include the Kwale North Dune deposit. The Kenya Mining Act 2016 includes provision for the amendment of an existing SML and for the conversion of an existing PL to SML.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	In 1996, Tiomin carried out reconnaissance surface and hand-auger sampling. Following the encouraging results obtained, mud-rotary drilling was undertaken in 1997 and 37 holes for a total of 1,824m was achieved for the North dune, at 3m sampling intervals. Prior to acquisition of the Kwale Project by Base Resources, Tiomin prepared and published a North Dune Mineral Resources estimate of 116 Mt @ 2.1% HM using a 0.5% HM cut-off grade. The current resource model omits the Tiomin data. This followed a twin drilling analysis of the Tiomin Mud Rotary holes with Base Resources' RCAC to determine relevance of historical data to the Kwale South Dune Mineral Resources estimate in 2016. A total of 18 twin-hole pairs from a geographically dispersed area within the South Dune were included for analysis. A very poor correlation in HM values between the two methods (R^2 = 0.1522) resulted from the study. It is assumed that the poor correlation would extend to the North Dune. This is expected, given the open-hole method of drilling employed by Tiomin and supports the decision to exclude Tiomin data from the current interpolation.

Criteria	Explanation	Comment
Geology	*Deposit type, geological setting and style of mineralisation.*	The North Dune is part of the extensive Kwale Dune systems comprising of reddish, windblown Magarini sand formations that overlie a sequence of mineralised clay-rich fluviatile units, which in turn overlie a Mesozoic sandstone Base, known as the Mazeras formation. These three units are separated by lateritic paleo-surfaces which signify a time-gap between the geological formations. The Mazeras Sandstone, derived from the disintegration of the Mozambique Belt metamorphic rocks, has likely provided the supply of heavy minerals to the Magarini sand dunes and the fluviatile formations. Exploration of the Kenyan coastline is yet to be successful in terms of mineralised paleo-strandlines related to fossil marine terraces, as these are likely buried beneath recent barren fluvial overburden or were just not developed owing to reduced energy levels from a fringing coral reef that has acted as a barrier to effective winnowing and reworking of HM deposits.
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.*	Drilling by year (max, min and average depths) used for the resource model build are as follows: • 2010 o 11 drill holes (depth: max 72m, min 24m, avg 56m). o Total 582m drilled. • 2012 o 31 drill holes (depth: max 75m, min 18m, avg 60m). o Total 1,681.5m drilled. • 2013 o 80 drill holes (depth: max 75m, min 27m, avg 55m). o Total 3,792m drilled. • 2018 o 567 drill holes (depth: max 117m, min 6m, avg 45 m). o Total 20,477m drilled. • 2019 o 56 drill holes (depth: max 30m, min 9m, avg 30m). o Total 897m drilled. See drill hole location plan, Figure 4.

Criteria	Explanation	Comment
		All drill holes drilled vertically. Exploration results are not being reported at this time.
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.*	Exploration results are not being reported at this time. No equivalent values were used. No aggregation of short length samples used as samples were consistently 3m and 1.5m intervals.
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').*	The deposit sequences are sub-horizontal, and the vertically inclined holes are a fair representation of true thickness.
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.*	See figures 3-7.
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.*	Exploration results are not being reported at this time.

Criteria	Explanation	Comment
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.*	The proprietary Minmod mineralogy technique, developed and employed by Base Resources, comprises an XRF analysis of the magnetic and non-magnetic fractions of each composite or sample, the results from which are then back-calculated to determine in-ground mineralogy. Minmod represents an improvement on the previous method (Geomod) that was not as effective at determining accessory minerals in the Kwale assemblage. Minmod has been validated by external quantitative analysis (QEMSCAN and SEM EDX) and is considered sufficiently certified to support quoted resource confidence in this report.
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.*	Additional 100 x 100m aircore drilling to in-fill gaps and extend mineralisation in the open NW part of the deposit. Recommended 50 x 50m aircore drilling across strike primarily to improve across strike variography for Ore 4. Generation of further Ore Zone 5 QEMSCAN composites for a more confident mineralogical modelling. Detailed tests to establish accurate bulk densities.

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	Comment
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.*	Field data was captured in LogChief logging application and automatically validated through reference to pre-set library table configurations. Typing or logging code errors, duplication of key identifiers (e.g., HOLE_ID, SAMP_ID) and conflicts in related tables (e.g., down-hole depth) are quarantined by the software and require resolving immediately before logging can proceed. The SQL Database also has identical automated validation features. Data import is unsuccessful until these data issues are resolved. Field logging and survey data from the SQL database were imported into Datamine Discover (MapInfo) for sectional interpretation. Validation steps included a visual interrogation of collar versus geology depths, a review of hole locations against the drilling plan and a check for missing or duplicated logged fields and outliers. Any spurious or questionable entries were resolved by the supervising Geologist. At the completion of each hole, an entry was made to the hand-written drilling diary. The diary recorded the hole name, date, depth, number of samples, time of start and finish, a description of the location of the hole in relation to the last hole and other things. Such a diary provides valuable evidence if there is an error in hole naming or surveying. A geologist was employed to manage digital data capture at the sample preparation laboratory to reduce the potential for data entry error by unskilled labourers. A number of validation checks were made of sample preparation data to ensure accurate data entry and application of correct procedure by BTL staff. This included: • comparison of pre- versus post-oven weights • comparison of split weight versus de-slimed weight • comparison of split weight versus field sample weight • all sample preparation data were sorted by each individual field and outliers investigated Assay results were delivered via email in 45 sample batches from Kwale Operations' site laboratory. These were in the form of CSV text files and imported by batch number directly into the SQL

Criteria	Explanation	Comment
		database tables where pre-set algorithms converted weights to percentages and removed the moisture content. The calculated assay results were then checked manually for missing records and out of range or unrealistic values.
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.*	Base Resources' Resources Manager Scott Carruthers made one site visit to review the SQL database and the geological interpretations. The Competent Person is satisfied with the integrity of the database as well as the delineation of the geological boundaries.
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 geological interpretation was undertaken by the BTL Exploration Superintendent using field logs and observations, assays, HM sachet logs, XRF oxide chemistry and mineralogy data. The oversize grades were particularly useful in determining the lateritic paleo-surfaces between the geological zones. The data spacing for the project is considered sufficient for grade and mineralogical continuity. Four mineralised geological zones and a basement zone were identified and are used as constraints in the Mineral Resources estimation. The uppermost zone at Kwale North, referred to as Ore Zone 1, is a dark brown, predominantly fine grained, well sorted silty sand with very little induration. It is also characterised by a clean, high value heavy mineral assemblage. Ore Zone 4 lies below Ore Zone 1 with a clear lateritic boundary observed in the field with slightly difficult bit penetration, and in HM sink logs, exhibiting elevated iron oxides. Ore Zone 4 is lower in valuable heavy mineral content, often dominated by iron oxides and Al_2SiO_4 polymorphs (kyanite, andalusite and sillimanite). It is considered a fluvial deposit based on the difficulty of wash and the poor grain sorting. Ore Zone 5 lies below Ore Zone 4 and is separated from that zone by a lateritic paleo-surface. It is unique mineralogically due to an increased amount of almandine garnet that reports to the mag fraction, significantly increasing the magnesium, manganese, aluminium and silicon in the oxide chemistry, and this is also reflected in QEMSCAN mineralogy. For Ore Zones 1, 4 and 5, a strong correlation between the field logs, HM sink logs and XRF oxide chemistry and QEMSCAN mineralogy gives confidence to these interpretations. The grade and mineralogy continuity is abruptly truncated at the western edge by an interpreted

Criteria	Explanation	Comment
		normal fault that pushed basement material to the surface with resultant low grades and trash HM.
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.*	The 2021 Kwale North Dune Mineral Resources estimate is approximately 6,300m along strike and about 1,200m across strike on average, The average thickness of Ore 1, Ore 4 and Ore 5 are approximately 10m, 7m and 5m respectively.
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 2021 Kwale North Dune Mineral Resources estimation was undertaken using Datamine Studio RM software. Inverse Distance Weighting to the power of three was used to interpolate assay grades (HM, Slimes, Oversize) from the drill hole file. Nearest Neighbour was used to interpolate the composite ID and mineralogy data. This is an update to the previous (and maiden JORC 2012) 2019 Kwale North Dune Mineral Resources estimate, which was 171 Mt @ 1.5% HM using a 1.0% cut-off grade. No mining has been undertaken. No assumptions have been made as to the recovery of by-products. The parent cell size used in the grade interpolation (50m x 50m) was half the average drill hole spacing on the X and Y axes, which was 100m x 100m. The vertical thickness of the cell was the nominal average drill sample interval i.e., 1.5m. No assumptions were made behind modelling of selected mining units. No assumptions made about correlation behind variables. Validation was undertaken by swathe plots, population distribution analysis and visual inspection. The geological zones were used to control the resource estimate by constraining grade interpolations and reporting.

Criteria	Explanation	Comment
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The Mineral Resources estimate is on a dry tonnes basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The economic cut-off of Kwale Operations is between 1% and 1.5% HM, and historically Kwale Operations Mineral Resources estimate reporting focuses on a 1% HM cut-off grade.
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.	It is assumed that the hydraulic mining method used at the neighbouring Kwale Operations would be used. The high slime content and generally low levels of induration in the North Dune deposit provide support for this mining method. This mining method is being re-assessed as part of the Kwale North Dune PFS.
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.*	The existing concentrator, modified to accommodate the increased slimes, and mineral separation plant at Kwale Operations are assumed capable of processing the material with recoveries expected to be aligned with present production.
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*	Tailing disposal is likely to utilise co-disposal of fine and coarse tails together, initially into the Kwale Central pit void. Once space is available, tailings would be co-disposed into the Kwale North pit void.

Criteria	Explanation	Comment
	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.	
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.*	A fixed dry bulk density of 1.7 (t/m3) was assumed for the Mineral Resource estimation, based on operational experience of mining the Kwale Central Dune and South Dune deposits.
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 Mineral Resource classification for the Kwale North deposit was based on drill hole spacing, sample interval and the distribution and influence of composite mineralogical samples. The classification of the Measured, Indicated, and Inferred Mineral Resources was supported by the uniform grid spacing of drilling, uncomplicated and consistent geology, relatively good continuity of mineralisation particularly along strike (and supported by the domain controlled variography), confidence in the down hole drilling data and supporting criteria as noted above. As Competent Person, IHC Robbins Geological Services Manager, Greg Jones, considers that the result appropriately reflects a reasonable view of the deposit categorisation.
Audits or reviews.	*The results of any audits or reviews of Mineral Resource estimates.*	Peer review was undertaken by Scott Carruthers, Base Resources' Resources Manager, with focus on the process and output of the geology interpretation, database integrity, whether wireframes reflect the geological interpretation, and model vs. drill hole grades. Mr. Carruthers was satisfied with these facets.
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*	Variography was undertaken to determine the drill hole support of the selected JORC classification. Validation of the model vs drill hole grades by direct observation and comparison of the results on screen.

Criteria	Explanation	Comment
	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 resource statement is a global estimate for the entire known extent of the Kwale North deposit within the tenement area.

Appendix 2 – 2021 Bumamani Mineral Resources estimate

JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	*Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* *Aspects of the determination of mineralisation that are Material to the Public Report.* *In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.*	Reverse circulation aircore drilling was used to collect downhole samples for the project. Sample sub-splits were collected at 1.5m down-hole intervals for holes drilled, using an on-board rotary splitter mounted beneath the rig cyclone. Sample gates were set to collect approximately 25% of the splitter cycle, which delivered about 2.7kg of sample per interval on average. Rig duplicate samples were collected at the splitter for every 20th sample simultaneously with the original sample. A representative grab sample from the sample bags was routinely washed and panned for lithological logging and HM grade estimate.
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).*	40 holes in the 2017 campaign were drilled with a RCAC Wallis Mantis 80 drill rig using NQ drill tooling of about 76mm in diameter and a drilling capability of 100m. 143 holes in the 2018 campaign were similarly drilled with a Mantis 80 drill rig, also using NQ drill bits. For both drilling campaigns, the rig mast was orientated vertically by spirit level prior to drilling to adhere to best practice for geological boundary delineation. Drilling was recorded in geological logs as either dry or water injected, depending on ground conditions. Water injection was employed to assist with penetration through clays/rock and maintain

Criteria	JORC Code explanation	Commentary
		sample quality and delivery.
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.*	Sample condition was logged at the rig as either good, moderate or poor, with good meaning not contaminated and appropriate sample size (recovery), moderate meaning not contaminated, but sample over or under sized and poor meaning contaminated or grossly over/undersized. Slightly damp ground conditions with approximately 20% silt/clay meant that best sample quality was found to be achieved via slow penetration with water injection to aid in the sample recovery. No relationship is believed to exist between grade and sample recovery. No bias is also believed to occur due to loss of fine material.
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.*	Field logging was recorded for all 1,968 fixed, down-hole intervals and was conducted as drilling and sampling proceeded. Logging was based on a representative grab sample that was panned for heavy mineral estimation and host material observations. Logging codes were designed to capture observations on lithology, colour, grainsize, induration and estimated mineralisation. Any relevant comments e.g., water table, gangue HM components and stratigraphic markers were included to aid in the subsequent geological modelling.
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*	Rotary split at the sampling cyclone on the rig. Approximately 25% of the original sample retained. Duplicate samples were collected at every 20th sample. The drill rods and cyclone were routinely cleaned between holes using pressurised water to avoid inter-hole contamination. The sample size is considered appropriate for the grain size of the material because the grade of HM is measured in per cent, and a 2.5-5kg sample contains in excess of 50 million grains of sand. The sample preparation process departed from standard mineral sand practices in one respect; the samples were not oven dried prior to de-sliming, to prevent clay minerals from baking onto the HM grains (because the HM fractions were to be used in further mineralogical test work). Instead, a separate sample was split and dried to determine moisture content, which was accounted for mathematically. Pre-soaking of the sample TSPP dispersant solution ensured a more efficient de-sliming process and to avoid potentially under-reporting slimes content.

Criteria	JORC Code explanation	Commentary
	material being sampled.	
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.*	The assay process employed by Base Resources includes a Sample Preparation stage, completed by BTL staff, followed by a heavy liquid separation (using lithium polytungstate: SG = 2.85g/cm3), completed at Kwale Operations' site laboratory. Recent improvements to the sample preparation stage were made to ensure industry best practice and to deliver a high degree of confidence in the results. These included the following: • A formalised process flow was generated, posted in all sample preparation areas and used to train and monitor sample preparation staff. • Regular monitoring was completed by BTL senior geology staff. • Field samples were left in their bags for initial air-drying to avoid sample loss. • TSPP was introduced to decrease attrition time and improve slimes recovery. A range of attrition times (with 5% TSPP) were trialled and plotted against slimes recovery figures to determine optimum attrition time (15 minutes). • Staff were trained to use paint brushes and water spray rather than manipulate sample through slimes screen by hand to remove the potential for screen damage. • A calibration schedule was introduced for scales used in the sample preparation stage. • Samples prepared and submitted systematically in 40 -sample batches, with each batch routinely containing QC samples – one standard, two field duplicates and two lab duplicates. • Slimes screen number recorded to isolate batches should re-assay be required due to poor adherence to procedure or to identify screen damage. • Various quality control samples were submitted routinely to assure assay quality. A total of 95 field duplicates, 95 sample prep duplicates, 47 field standard samples, 61 lab repeats, and an unspecified number of internal standards, repeats and blanks have been assayed at Kwale Operations' site laboratory.

Criteria	JORC Code 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.*	The Bumamani deposit is a moderate to low HM grade, dunal-style accumulation that does not carry excessive mineralisation or suffer from 'nugget' effects, typical of other commodities. An external audit validation was completed for the HM analyses included in the 2021 Bumamani Mineral Resources estimate by IHC Robbins in 2020. A total of ten twin drill holes were completed between the 2017 and 2018 drilling program, representing about 5.5% of the total drillholes. These twins were used to quantify short-range variability in geological character and grade intersections and were placed throughout the deposit. The spatially well-represented twin hole paired data shows very good correlation considered material to the integrity/quality of the resource data.
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.*	Proposed drill holes were sited on the ground using hand-held GPS. After drilling, surveyors recorded collar positions via DGPS RTK unit registered to local base stations. The accuracy of the DGPS unit is stated at 0.02m in the X, Y and Z axes. The survey geodetic datum utilised was UTM Arc 1960, used in E. Africa. Arc 1960 references the Clark 1880 (RGS) ellipsoid and the Greenwich prime meridian. All survey data used in the 2021 Bumamani Mineral Resources estimate dataset has undergone a transformation to the local mine grid from the geodetic datum. The local Grid was rotated at 42.5° which aligns the average strike of the deposit with local North and is useful for both grade interpolation and mining reference during production. All drill collars were projected to the local LIDAR digital terrain model captured over the resource area in 2018 at a 2x2m grid spacing. This was performed prior to interpretation and model construction to eliminate any elevation disparities for the block model construction.
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 drill data spacing from the 2017 and 2018 Bumamani Resource drilling programmes was nominally 50m X, 100m Y and 1.5m Z. Variations from this spacing resulted from terrain difficulties or ground access issues. This spacing and distribution is considered sufficient to establish the degree of geological and mineralisation continuity appropriate for the resource estimation procedures and classifications applied. A 1.5m downhole compositing has been applied for HM, slimes and oversize in the interpolation processes. This is necessary in Geovia Surpac software which cannot estimate grades directly from the

Criteria	JORC Code explanation	Commentary
		drillhole database.
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.*	With the geological setting being a layered dunal/fluviatile sequence, the orientation of the deposit mineralisation in general is sub-horizontal. All drill holes were orientated vertically to penetrate the sub-horizontal mineralisation orthogonally. Hole centres were spaced nominally at 50m. This cross-profiles the dune so that variation can be determined. Down hole intervals were nominated as 1.5m. This provides adequate sampling resolution to capture the distribution and variability of geology units and mineralisation encountered vertically down hole. The orientation of the drilling is considered appropriate for testing the horizontal and vertical extent of mineralisation without bias.
Sample security	*The measures taken to ensure sample security.*	Sample residues from the prep stage were transferred to pallets and stored in a locked storage facility beside the warehouse at Kwale Operations. Residues from the Kwale Operations site laboratory were placed in labelled jars and stored in numbered boxes. Boxes were placed into a locked container beside the laboratory. Sample tables are housed on a secure, network-hosted SQL database. Administration privileges are limited to two BTL staff: Exploration Superintendent and the Business Applications Administrator. Data is backed up every 12 hours and stored in perpetuity on a secure, site backup server. Data is also backed up on Maxwell GeoServices servers in Perth.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Base Resources' Resources Manager, Mr. Scott Carruthers reviewed the Bumamani geological interpretations, wireframes and assay and mineralogy data interpolations. IHC Robbins Geological Services Manager Greg Jones validated the resource data and reviewed the completed block model.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	The Bumamani deposit is situated on a Prospecting License (PL) 100% owned by Base Titanium Limited – PL/2018/0119 located in Kwale County, Kenya. Base Titanium Limited is a wholly owned subsidiary of Australian and UK-listed resources company, Base Resources Limited. The 88.7 km^2 Prospecting License was granted on the 26th of May 2018 for a three-year term ending 25th May 2021. The PL is in good standing with the Kenya Ministry of Petroleum & Mining at the time of reporting, with all statutory reporting and payments up to date. Local landowners are generally supportive of exploration activities with over 90% of planned holes drilled. The existing Special Mining Lease 23 lies within the Prospecting license area and covers the Kwale Central deposit and some of the Kwale South deposit but does not include the Bumamani deposit. The Kenya Mining Act 2016 includes provision for the amendment of an existing SML and for the conversion of an existing PL to SML.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	No known prior exploration has been undertaken by other parties.
Geology	*Deposit type, geological setting and style of mineralisation.*	The Bumamani deposit is part of the extensive coastal Plio-Pleistocene Magarini Formation, which comprises aeolian dunal sands and clay-rich fluviatile units that overlie down-faulted Jurassic and Tertiary formations. The presence of a thin, discontinuous laterite layer seen at the base of the dune sands is considered to indicate a change of climate in contradistinction to the underlying fluviatile sediments. These units are locally enriched with heavy minerals, primarily ilmenite, rutile and zircon as well as significant silicate gangue in the lower fluviatile units. The hinterland 'Mozambique Belt' metamorphic formations are considered the likely HM feed source for the Kwale deposits. Exploration along the Kenyan coastline is yet to be successful in terms of mineralised paleo-strandlines related to fossil marine terraces, perhaps due to low wave energy levels caused by the fringing reef acting as a breakwater, thus preventing effective HM winnowing and trapping.

Criteria	JORC Code explanation	Commentary
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.* *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	Drilling by year (max, min and average depths) used for the resource model build are as follows. • 2017 o 40 drill holes (depth: max 75m, min 12m, avg 26m). o Total 1,026m drilled. • 2018 o 143 drill holes (depth: max 45m, min 6m, avg 13m). o Total 1,951.5m drilled. See drill hole location plan, Figures 9 and 10. All drill holes drilled vertically. All collars projected to the LIDAR surface DTM Exploration results are not being reported at this time.
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.*	Exploration results are not being reported at this time. No bottom and top cut grades were employed. No equivalent values were used. No aggregation of short length samples used as sample interval was consistently 1.5m.
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,*	The deposit sequences are sub-horizontal, and the vertically inclined holes are a fair representation of true thickness.

Criteria	JORC Code explanation	Commentary
	there should be a clear statement to this effect (e.g., 'down hole length, true width not known').	
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	See figures 8-11.
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.*	Exploration results are not being reported at this time.
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.*	The proprietary MinMod mineralogy technique, developed and employed by Base Resources, comprises an XRF analysis of the magnetic and non-magnetic fractions of each composite or sample, the results from which are then back-calculated to determine in-ground mineralogy. MinMod represents an improvement on the previous method (GeoMod) that was not as effective at determining accessory minerals in the Kwale assemblage. MinMod has been validated by external quantitative analysis (QEMSCAN and SEM EDX) and is considered sufficiently certified to support quoted resource confidence in this report.
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.*	Test pits for bulk sample mineralogy test work. Generation of more Ore4 downhole composites for MinMod mineralogy. Infill drilling to improve Mineral Resource confidence in the Indicated and Inferred areas. Drilling of the Magaoni prospect which is a northern extension of the Bumamani Deposit.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	JORC Code explanation	Commentary
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	Field data was captured in LogChief logging application and automatically validated through reference to pre-set library table configurations. Typing or logging code errors, duplication of key identifiers (e.g., HOLE_ID, SAMP_ID) and conflicts in related tables (e.g., down-hole depth) are quarantined by the software and require resolving immediately before logging can proceed. The SQL Database also has identical automated validation features. Data import is unsuccessful until these data issues are resolved. Field logging and survey data from the SQL database were imported into Geovia Surpac for database build and sectional interrogation. Validation steps included a visual interrogation of collar versus geology depths, a review of hole locations against the drilling plan and a check for missing or duplicated logged fields and outliers. Any spurious or questionable entries were resolved by the supervising Geologist. At the completion of each hole, an entry was made to the hand-written drilling diary. The diary recorded the hole name, date, depth, number of samples, time of start and finish, a description of the location of the hole in relation to the last hole and other things. Such a diary provides valuable evidence if there is an error in-hole naming or surveying. Several validation checks were made of sample preparation data to ensure accurate data entry and application of correct procedure by BTL staff. This included: • comparison of pre- versus post-oven weights • comparison of split weight versus de-slimed weight • comparison of split weight versus field sample weight • all sample preparation data were sorted by each individual field and outliers investigated Assay results were delivered via email in 45 sample batches from the Kwale Operations site laboratory. These were in the form of CSV text files and imported by batch number directly into the SQL database tables where pre-set algorithms converted weights to percentages and removed the moisture content. The calculated assay results were then checked manually for missing records and

Criteria	JORC Code explanation	Commentary
		out of range or unrealistic values.
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.*	Base Resources' Resources Manager Scott Carruthers, the Competent Person, has visited the site several times to review assaying, geological interpretation and resource estimation processes, which are considered appropriate.
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 geological interpretation and zoning were completed by the BTL Exploration Superintendent by considering field logs, assays, microscopic HM sink descriptions and mineralogy data. The data spacing for the project is considered sufficient for grade and mineralogical continuity. Two mineralised geological zones and a basement zone were identified and were used as constraints in the Mineral Resource estimation. The uppermost zone at Bumamani, referred to as Ore Zone 1, is a dark brown, predominantly fine grained, well sorted silty sand with very little induration. It is also characterised by clean, polished HM with minimal gangue minerals. Ore Zone 4, underlying Ore Zone 1 is a sandy-clay fluviatile unit with low-level sorting and common lateritic fragments. The HM from this zone contains more lateritic aggregates. The Basement zone is a low-grade, clay rich, fluviatile unit with a difficult to impossible washability. The HM from this zone is notably enriched in gangue silicates. For Ore Zones 1 and 4, a strong correlation between the field logs, HM sink logs and XRF oxide chemistry and QEMSCAN mineralogy gives confidence to these interpretations.
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.*	The Bumamani Mineral Resource is approximately 1,600m along strike and 500-700m across strike on average. The deposit thickness averages 10m.
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 Bumamani Mineral Resource estimation was undertaken using Geovia Surpac version 6.8 software. Inverse Distance Weighting to the power of three was used to interpolate assay grades (HM, Slimes, Oversize) from the assay composite string file. Nearest Neighbour was used to interpolate the mineralogy data from the mineralogy composite

Criteria	JORC Code explanation	Commentary
	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.*	string file. This is the maiden Mineral Resource estimate for the Bumamani deposit and no previous estimates, or mining production records have been prepared by Base Resources. No assumptions have been made as to the recovery of by-products. The parent cell size used in the grade interpolation was half the average drill hole spacing on the Y and X axes, which was 100m x 50m. The vertical thickness of the cell was the nominal average drill sample interval i.e., 1.5m. No assumptions were made behind modelling of selected mining units. No assumptions made about correlation between variables. Validation was undertaken by swath plots, population distribution analysis and visual inspection. The geological zones were used to control the resource estimates. Grade interpolations were controlled by ore zone.
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	The Mineral Resources estimate is on a dry tonnes basis.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	The economic cut-off of Kwale Operations is between 1% and 1.5% HM, and historically the Kwale Operations Mineral Resources estimate reporting focuses on a 1% HM cut-off grade.
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*	It is assumed that the hydraulic mining method used at the neighbouring Kwale Operations would be used. Moderate slime content and generally low levels of induration provide support for this mining method. This mining method is being re-assessed as part of the Kwale North Dune PFS.

Criteria	JORC Code explanation	Commentary
	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.	
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.*	The existing concentrator and separation plant at Kwale Operations are assumed capable of processing the material with recoveries expected to be aligned with present production.
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.*	Coarse and fine tailings are intended to be co-disposed together. Initially, into the Kwale Central pit void and subsequently into the Bumamani and Kwale North pit voids.
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.*	A fixed dry bulk density of 1.7 (t/m3) was assumed for the Mineral Resource estimation, based on operational experience of mining the Kwale Central Dune and South Dune deposits.

Criteria	JORC Code explanation	Commentary
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	
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 classification of the Indicated, and Inferred Mineral Resources was supported by the uniform grid spacing of drilling, uncomplicated and consistent geology, relatively good continuity of mineralisation particularly along strike (and supported by the domain controlled variography), confidence in the down hole drilling data and supporting criteria as noted above. As Competent Person, Base Resources' Resources Manager Scott Carruthers considers that the result appropriately reflects a reasonable view of the deposit categorisation.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	An internal review was undertaken by Base Resources' Resources Manager Scott Carruthers with focus on the process and output of the geology interpretation, database integrity, whether wireframes reflect the geological interpretation, and model vs. drillhole grades. Mr. Carruthers was satisfied with these facets. An audit and review of the Bumamani resource data and block model was undertaken by Greg Jones of IHC Robbins. Mr. Jones was satisfied with the integrity of the drilling/assay data, block model interpolated values and resource output.
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*	Variography was undertaken to determine the drill hole support of the selected JORC classification. Validation of the model vs drill hole grades by direct observation and comparison of the results on screen. The resource statement is a global estimate for the entire known extent of the Bumamani deposit within the tenement area.

Criteria	JORC Code explanation	Commentary
	procedures used. *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	

Glossary

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.
DTM	Digital Terrain Model.
Indicated Resource or Indicated	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 or Inferred	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.
Inverse distance weighting	A statistical interpolation method whereby the influence of data points within a defined neighbourhood around an interpolated point decreases as a function of distance.
JORC Code	The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 Edition, 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.
LIDAR survey	LIDAR is a remote sensing technology that measures distance by illuminating a target with a laser and analysing the reflected light to produce a DTM.
Measured Resource or Measured	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.
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.
Minmod	A company developed mineralogy modelling technique, it comprises an XRF analysis of the magnetic and non-magnetic fractions of each composite or sample, the results from which are then back-calculated to determine in-ground mineralogy.
QEMSCAN	An acronym for Quantitative Evaluation of Materials by Scanning Electron Microscopy, an integrated automated mineralogy and petrography solution providing quantitative analysis of minerals and rocks.
QQ plot	Quantile plot. Used to graphically compare data distributions.
RTK	Real time kinematic DGPS uses a base station GPS at a known point that communicates via radio with a roving unit so that the random position error introduced by the satellite owners may be corrected in real time.
SEM, SEM EDX	A Scanning Electron Microscope is a type of electron microscope that produces images of a sample or minerals by scanning the surface with a focused beam of electrons. EDX is short for energy dispersive X-ray and is commonly used in conjunction with SEM.

Variography	A geostatistical method that investigates the spatial variability and dependence of grade within a deposit. This may also include a directional analysis.
XRF analysis or XRF	A spectroscopic method used to determine the chemical composition of a material through analysis of secondary X-ray emissions, generated by excitation of a sample with primary X-rays that are characteristic of a particular element.

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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.