

# ASX ANNOUNCEMENT

4 April 2016



**STRANDLINE**  
resources limited

ABN 32 090 603 642

## Company Facts

Strandline Resources (ASX: STA) - Control of emerging country-wide mineral sands play in Tanzania, within one of the world's major producing corridors

## Website

[www.strandline.com.au](http://www.strandline.com.au)

## Key projects:

- Tanzanian Heavy Mineral Sands Exploration Projects (100%)
- Coburn Heavy Mineral Sands Project, WA (100%)
- Fowlers Bay Base Metal-Gold Project, SA (100%) – Western Areas Earning In

## Company Directors

### Didier Murcia

Non-Executive Chairman

### Tom Eadie

Managing Director

### Asimwe Kabunga

Non-Executive Director

### Richard Hill

Non-Executive Director

## Investor Enquiries

Andrew Rowell

Cannings Purple

E: [arowell@canningspurple.com.au](mailto:arowell@canningspurple.com.au)

T: + 61 8 6314 6300

## RUTILE-RICH RESOURCES DEFINED AT 100% OWNED TANGA SOUTH PROJECT

### Highlights

- Maiden Mineral Resources at Tanga South Project total 60 million tonnes @ 3.7% Total Heavy Minerals (THM)
- Area drilled so far covers only 5 kilometres of the 20 kilometre Tajiri corridor of surface mineralisation
- All of the Mineral Resources are classified as Indicated and all start at surface
- Mineral Resources include:
  - **Tajiri – Indicated Resource of 19 million tonnes @ 5.1% THM with a valuable assemblage of 12% rutile, 6% leucoxene, 6% zircon and 65% ilmenite**
  - **Tajiri North – Indicated Resource of 40 million tonnes @ 3.0% THM with an assemblage of 7% rutile, 2% leucoxene, 5% zircon and 70% ilmenite**
- Both deposits start at surface and consist of unconsolidated sand indicating that mining costs may be very low. They are within 50 kilometres of the port of Tanga in an area with reasonable infrastructure, which will help in minimising capital costs of any possible future development
- These two Mineral Resources are the second and third in Strandline's Resource Inventory (after the zircon-rich Fungoni) and represent only the initial phase of Strandline's exploration efforts on its large tenement package covering most of Tanzania's prospective shoreline
- Next steps include extensional and infill drilling, aimed at expanding the Mineral Resources at Tanga South to in excess of 100 million tonnes.

Tom Eadie, Strandline's Managing Director, commented *"The deposits defined at Tajiri, particularly with regard to high value rutile, confirm our belief that Tanzania hosts mineral sands deposits comparable to or better than those being mined in neighbouring Kenya or Mozambique.*

*"While we recognise that these are early days, we are excited by the fact that our exploration model has been validated and we look forward to increasing the size and the quality of our valuable Resource base over the course of the year."*

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## Introduction

The Tajiri prospects are located within the Tanga South Project in northern Tanzania (see Figure 1). Results from Strandline's first drill programme at Tajiri were released on 9 February and now the resource figures have been estimated and reported.

This resource estimation report follows the release on 23 February of the positive Scoping Study for the Company's zircon-rich Fungoni deposit (Indicated Resource of 11 million tonnes @ 3.1% THM with an excellent assemblage of 4% rutile, 22% zircon, 44% ilmenite). The discovery of these three deposits by Strandline in Tanzania will be a major benefit in any future production strategy because of the synergies between the deposits.



Figure 1: Strandline has a large tenement package along the Tanzanian coastline covering most of the prospective mineral sand ground. Indicated Resources have now been outlined at Tajiri, Tajiri North and Fungoni. Drill results are awaited at Madimba. The 2016 exploration programme is budgeted for 30,000 metres of aircore drilling.

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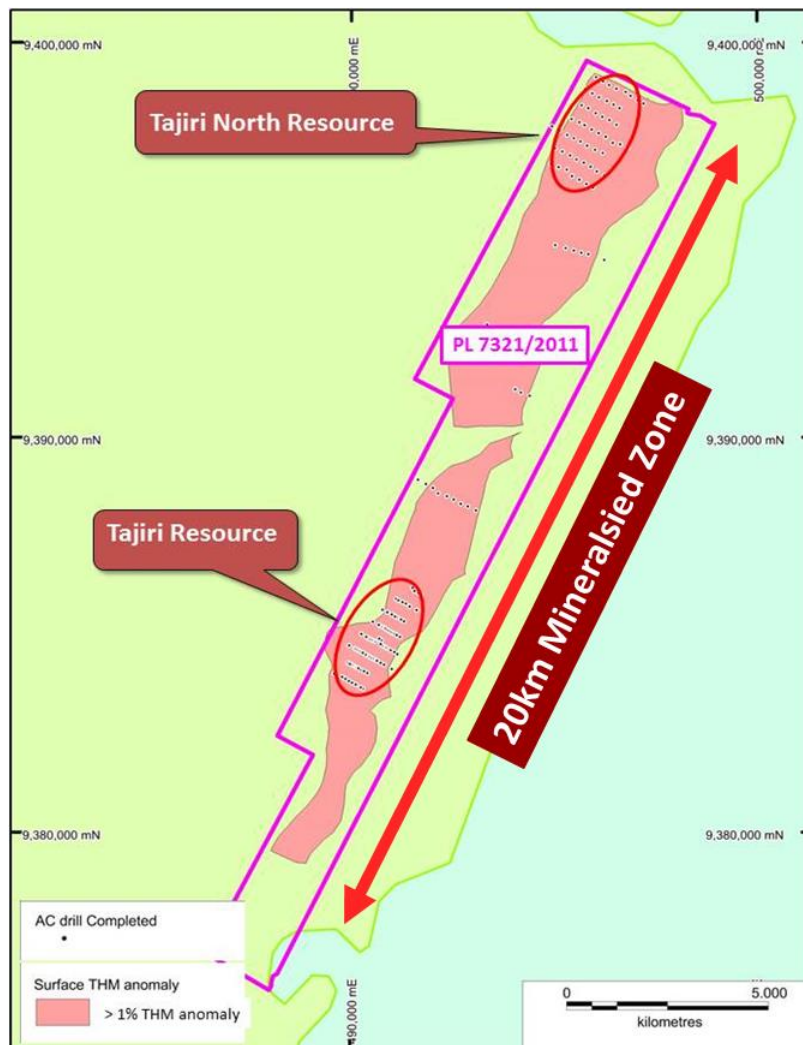


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Strandline's exploration strategy is to find further deposits on the highly prospective tenement package shown in Figure 1.

There is large potential within the Tajiri zone to increase Mineral Resources as shown by the 20km, undrilled mineralised corridor at Tajiri (see Figure 2). This corridor continues into further Strandline tenements to the north, all part of the Tanga South Project which also has other target areas.



**Figure 2. Location map of Tajiri and Tajiri North within the 20km long mineralised zone. There is large potential to increase the Resource within this undrilled zone.**

Still to come later this month are the results from the recently completed, initial, aircore drill programme at Madimba in southern Tanzania which will be ready for release in the next few weeks.

Furthermore Strandline is planning aircore drilling programmes totalling 30,000 metres for the coming season on several other high potential target areas along the Tanzanian coastline.

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## Tanga South Project JORC 2012 Mineral Resource

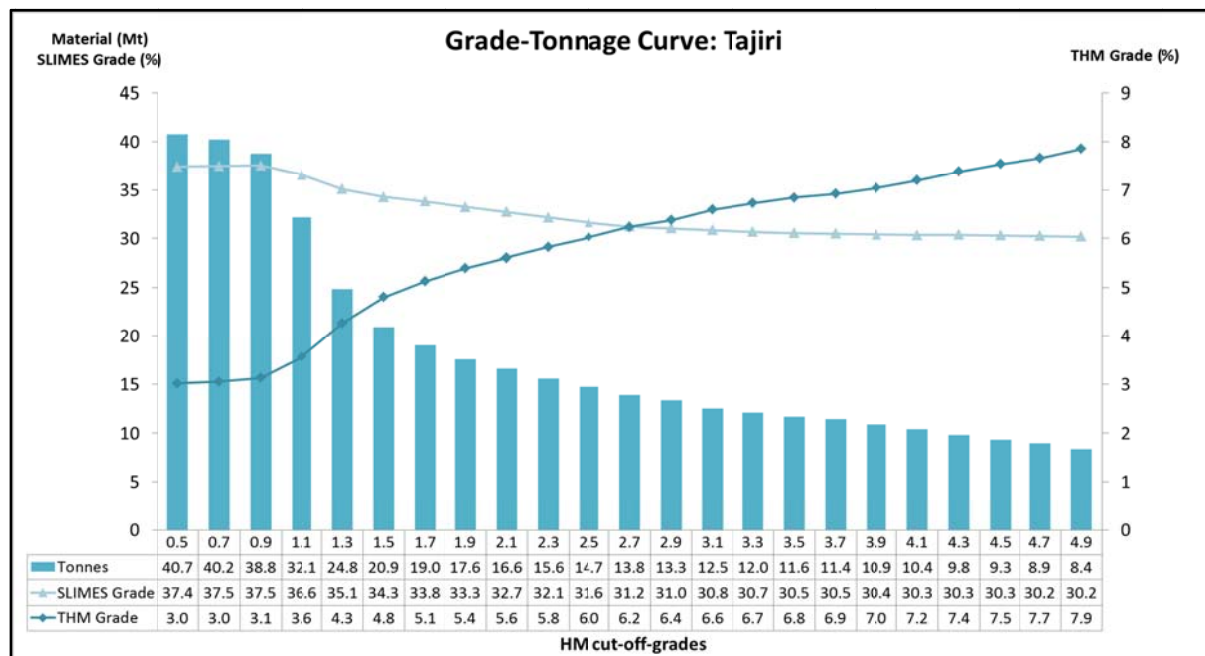
The Mineral Resource Estimation was conducted by GNJ Consulting Pty Ltd, a leading independent geological consultancy whose Principal is Greg Jones (refer to Competent Person statement).

Table 1 below displays the Mineral Resources estimated for the 100% owned Tanga South Project, in particular the Tajiri prospects, located in northern Tanzania. Importantly, all of the mineral resources are classified as Indicated and all start at surface.

MINERAL RESOURCE SUMMARY FOR TANGA SOUTH PROJECT										
Summary of Mineral Resources <sup>(1)</sup>					THM assemblage <sup>(2)</sup>					
Deposit	Mineral Resource Category	Tonnage	In situ THM	THM	Ilmenite	Rutile	Zircon	Leucoxene	Slimes	Oversize
		(Mt)	(Mt)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Tajiri	Indicated	19	1.0	5.1	65	12	6	6	34	3
Tajiri North	Indicated	40	1.2	3.0	70	7	5	2	52	3
	Total <sup>(3)</sup>	59	2.2	3.7	68	10	5	4	46	3

(1) Mineral Resources reported at a cut-off grade of 1.7% THM  
 (2) Mineral assemblage is reported as a percentage of in situ THM content  
 (3) Appropriate rounding applied

**Table 1. Mineral Resource Statement for the Tanga South Project at April 2016. Both deposits are very shallow, starting at surface**



**Figure 3. Grade-tonnage curve for the Tajiri Prospect. For varying cut-off grades shown immediately beneath the chart, tonnage and slimes content can be read from the left hand axis (or from the numbers at the bottom) and grade in THM% can be read from the right hand axis (or from the numbers at the bottom)**

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## **Tajiri Prospect**

The Tajiri Prospect has an Indicated Resource of 19 million tonnes @ 5.1% Total Heavy Minerals (THM) with a valuable assemblage of 12% rutile, 6% leucoxene, 6% zircon and 65% ilmenite at a cut-off grade of 1.7% THM. Slime (defined as silt <45µm) content at this cut-off is 33.8%.

Using a higher cut-off grade of 3.9% THM, the Indicated Resource is a small, high grade deposit of **10.9 million tonnes @ 7.0% THM**.

Using a lower cut-off grade of 0.5% THM, the Indicated Resource is a larger, lower grade deposit of **40.7 million tonnes @ 3.0% THM**.

Looking at the elevated surface expression of the Tajiri deposit (Figure 4) and a cross section (Figure 5), the mineralised body shows excellent geological continuity along strike and down dip. Very low strip ratios are anticipated with a large portion of the high grade mineral resource favourably positioned at surface.

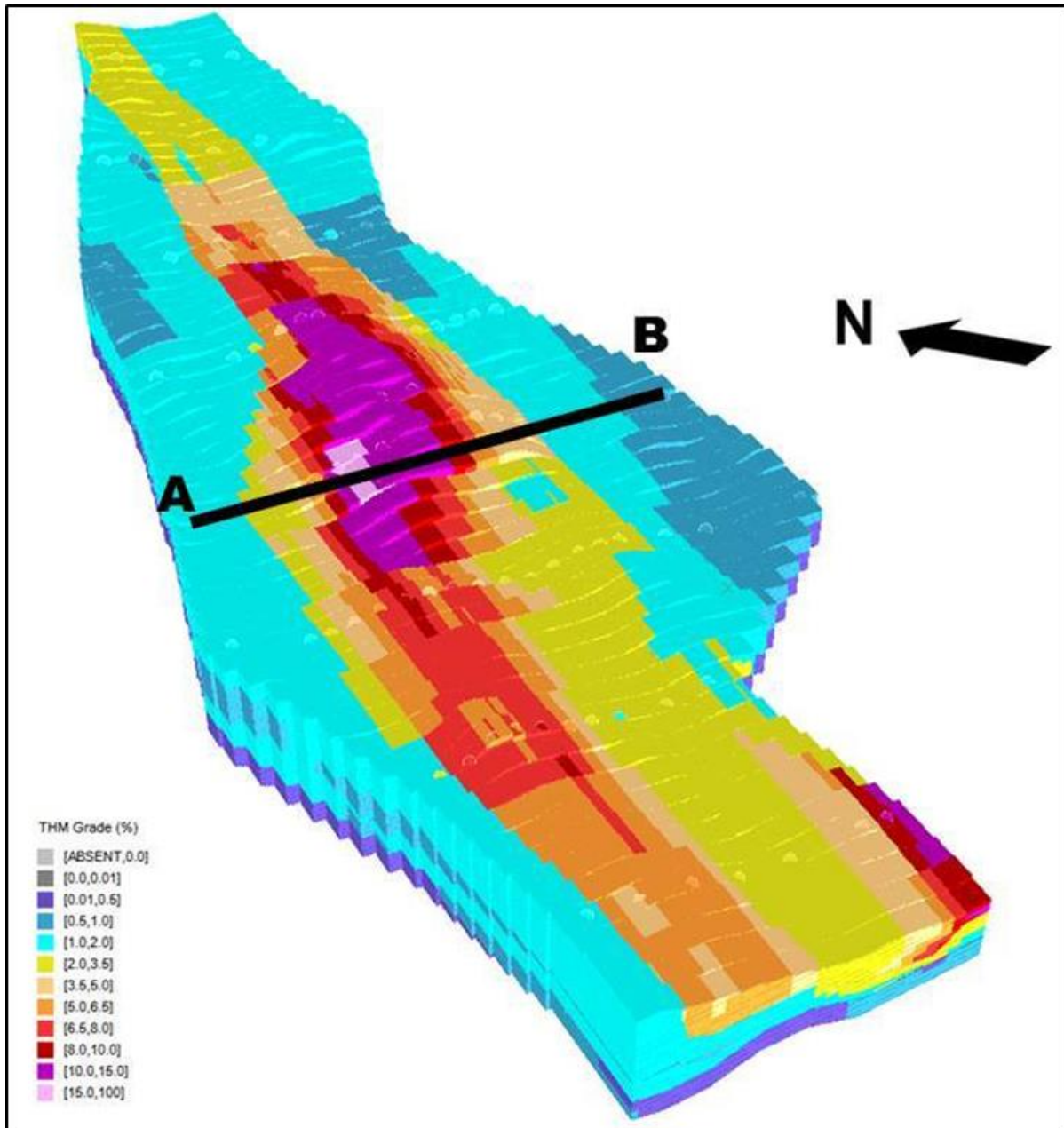


Figure 4. Tajiri Prospect block model – view looking north. The deposit is shallow (at surface) and is continuous along strike. The AB line shows the location of the cross section in Figure 5.

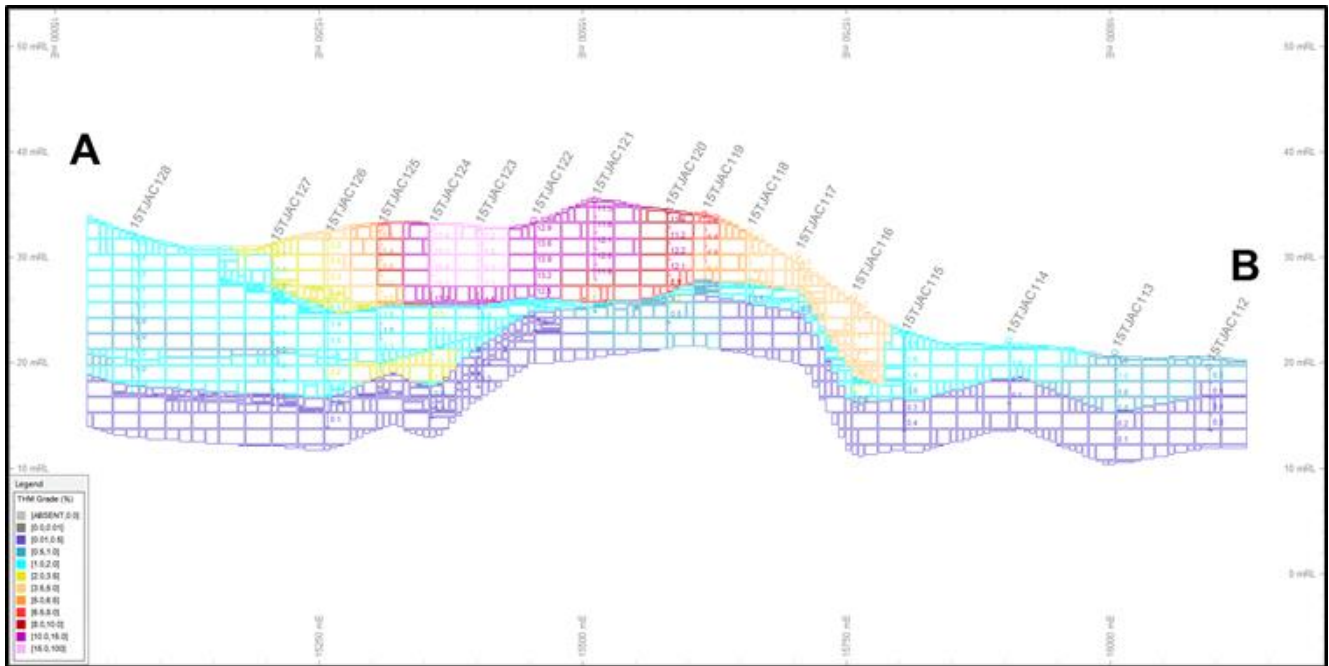
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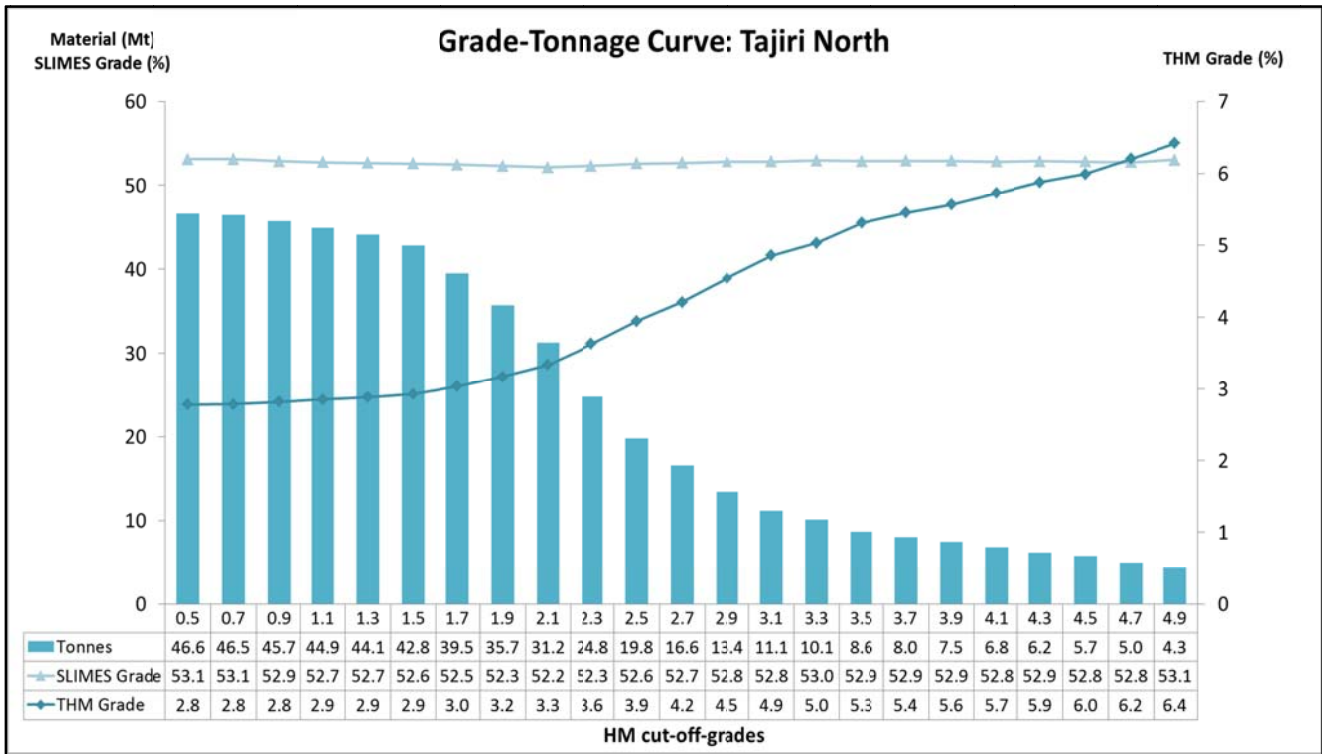
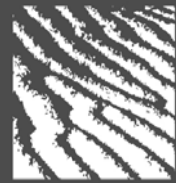
**Figure 5. Cross section through the centre of the Tajiri Prospect. The deposit is at surface and shows excellent continuity across strike.**

## Tajiri North Prospect

The Tajiri North Prospect has an Indicated Resource of 39.5 million tonnes @ 3.0% THM with an assemblage of 7% rutile, 2% leucosene, 5% zircon and 70% ilmenite at a cut-off grade of 1.7% THM. Slime (defined as silt <45µm) content at this cut-off is 52.5%.

Using a higher cut-off grade of 3.9% THM, the Indicated Resource is a smaller, higher grade deposit of **7.5 million tonnes @ 5.6% THM**.

Using a lower cut-off grade of 0.5% THM, the Indicated Resource is a larger, lower grade deposit of **46.6 million tonnes @ 2.8% THM**.



**Figure 6. Grade-tonnage curve for the Tajiri North Prospect.**

The block model of the Tajiri North deposit (Figure 7) and a cross section (Figure 8), show that the mineralised body has excellent geological continuity along strike and down dip. Very low strip ratios are anticipated with a large portion of the high grade mineral resource favourably positioned at surface.



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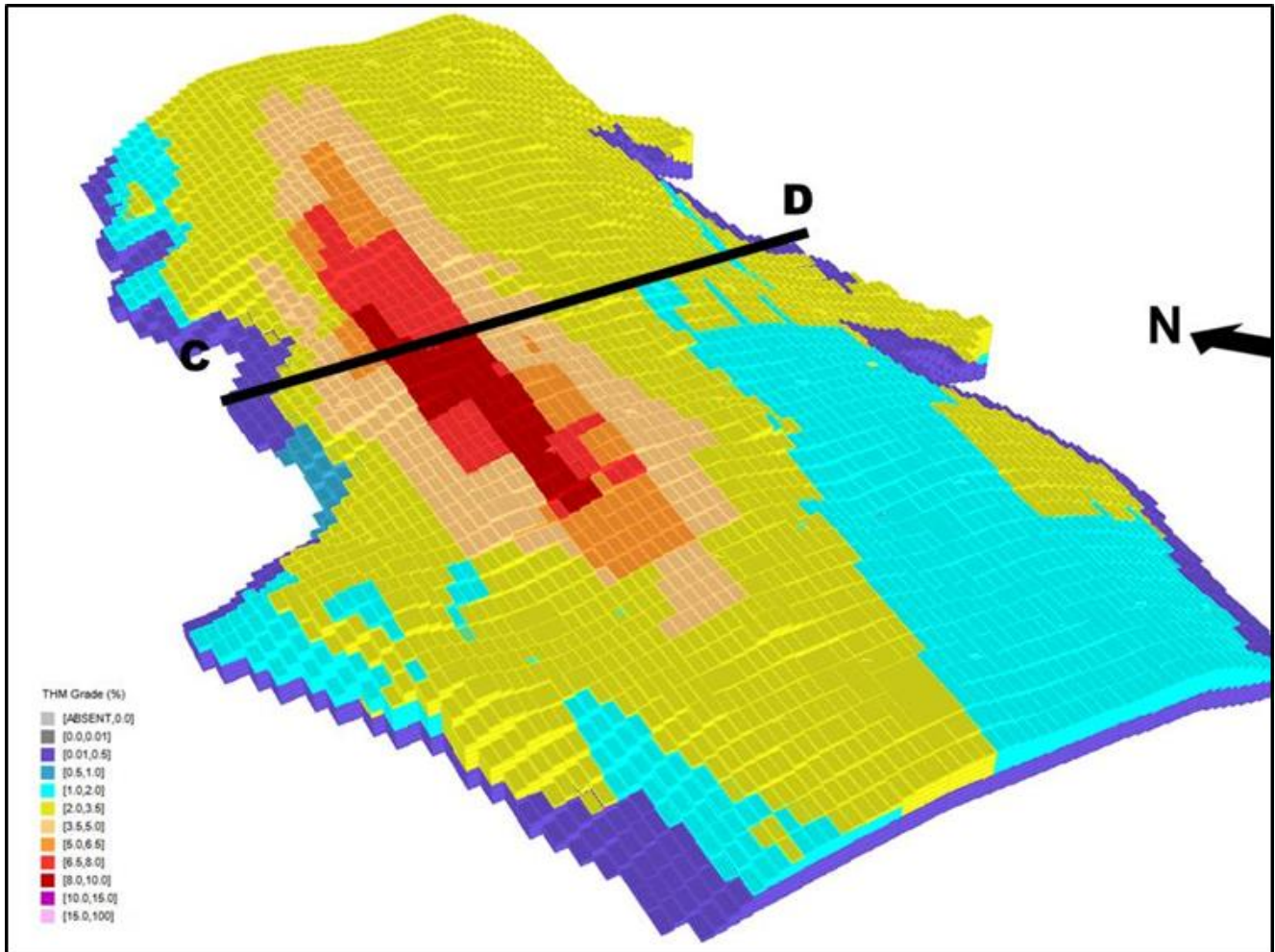


Figure 7. Tajiri North block model – view looking to the north.

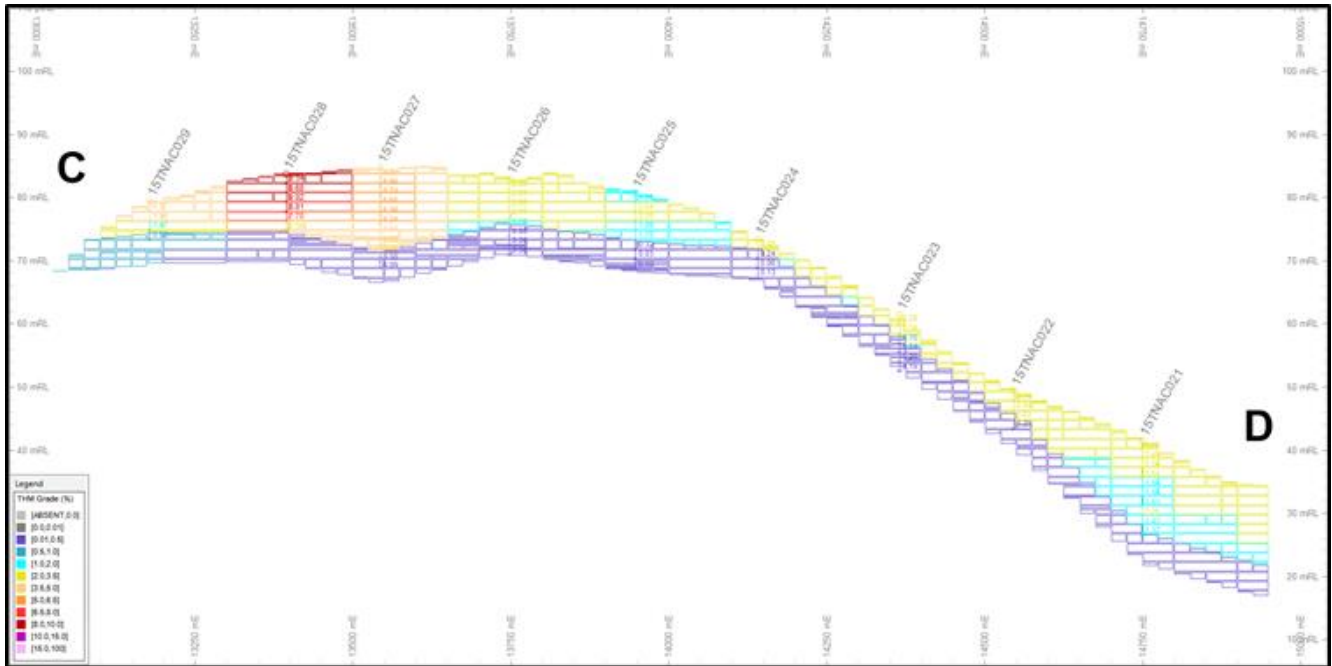
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**Figure 8. Cross section through the centre of the Tajiri North Prospect. The deposit is at surface and shows excellent continuity across strike.**

## SUMMARY OF RESOURCE ESTIMATE AND REPORTING CRITERIA

As per ASX Listing Rule 5.8 and the 2012 JORC Code reporting guidelines, a summary of the material information used to estimate the Mineral Resource is detailed below (for more detail please refer to Table 1, Sections 1 to 3 included below in Appendix 1).



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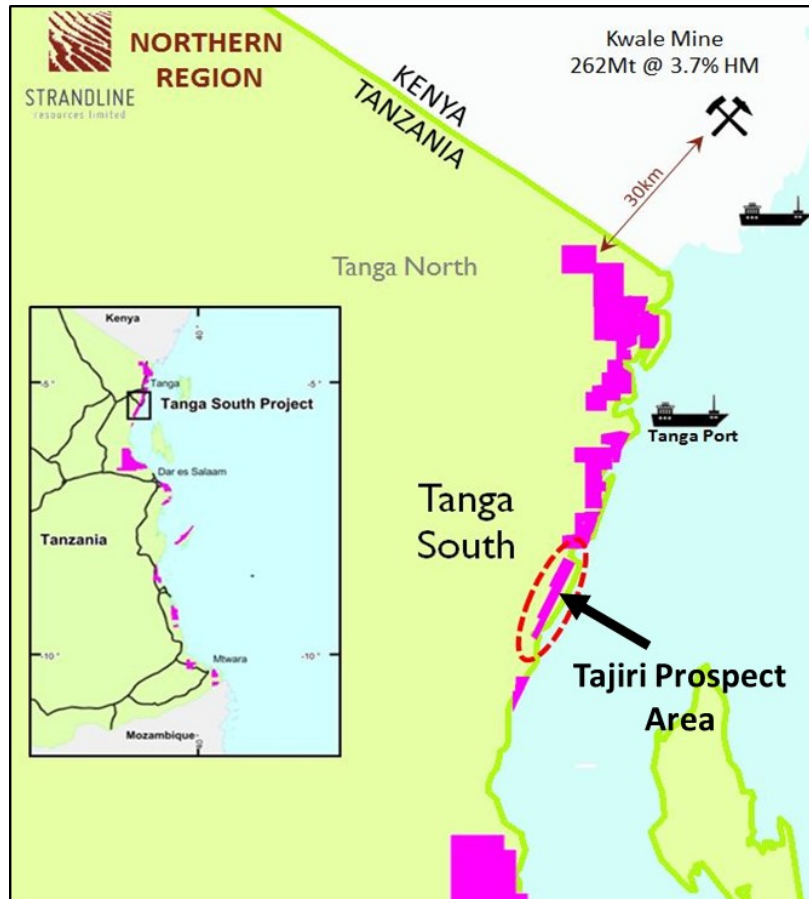


Figure 9. Tanga South Project and Tajiri prospects location map.

### Geology and geological interpretation

In Tanzania two types of heavy mineral placer style deposits have potential for resources delineation:

1. Thin but high grade strandlines which may be related to marine or fluvial influences; and
2. Large but lower grade deposits related to windblown sands.

The surface geology of the tenement is dominated by pale orange and red soils overlying limestone basement.

The Tajiri resource is situated at the base of a steep ridge to the west and forms an elevated bank that slopes gently to the east and towards the coast. The basement to the resource is Pleistocene reefal limestone which has an undulating contact with the overlying mineralised sands and silt. The Tajiri resource is thought to be a strandline related deposit but additional study is required to determine if it is marine or otherwise related. The fine silt (slime) content ranges from 20 to 40% with an average content of approximately 35%.

The Tajiri North resource is located upon an elevated limestone reef most likely of Pleistocene age. The sand containing the heavy mineral forms a veneer between 5 and 15m thick overlying the limestone and is thought to have an aeolian origin. The silt size (slime) component of the bulk sand host at Tajiri North consistently averages approximately 50%.

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## **Drilling techniques and hole spacing**

The aircore drilling technique was used to drill the Tanga South prospects. Aircore is considered a standard industry technique for evaluating HMS mineralisation and is a form of reverse circulation drilling where the sample is collected at the drill bit face and returned inside the inner tube. The drill bit is 76mm in diameter (NQ) and the rods are 3m long. All of the holes were drilled vertically.

At Tajiri North the resource was drilled on a 400 x 200m grid whereas at Tajiri a 400 x 100m and 400 x 50m grid spacing was used. A high degree of confidence in the geological models and grade continuity between drill holes has been established for both Tajiri and Tajiri North which supports the mineral resource classification.

For the purpose of the geological interpretation and resource modelling a local grid was set up along the long axis of the deposits so that the majority of drill lines were east-west and model cells were aligned north-south along that long axis. This allows for a simplification of the geological interpretation and subsequent model preparation, interpolation and analysis.

## **Sampling and sub-sampling techniques**

Aircore drilling was used to obtain samples at 1.5m intervals which generated about 8kg of drill spoil that was progressively split down to 1000g using a three tier riffle splitter. The smaller split samples were labelled and bagged for export to the primary laboratory for processing. Any wet or damp samples were allowed to dry prior to the splitting stage. The sampling method and sample size dispatched for processing is considered appropriate and reliable based on accepted industry practices and experience.

A sample ledger is kept at the drill rig for recording sample intervals and sample mass, and photographs are taken of samples for each hole to cross-reference with logging.

## **Sample analysis method**

The 1000g samples representing 1.5m drill intervals were analysed by Diamantina Laboratories in Perth, Western Australia, which is considered the primary laboratory for this resource estimate. The 1000g samples were rotary split to 250g which was soaked overnight and screened for removal and determination of Slimes ( $-45\mu\text{m}$ ) and Oversize ( $+1\text{mm}$ ). The residual  $45\mu\text{m}$  to 1mm fraction was then micro-riffle split down to 100g which was analysed for THM using tetrabromoethane (TBE) as the liquid heavy media. The density range of TBE is 2.92 and 2.96 g/ml. This is an industry standard process used to determine heavy mineral contents.

A total of 13 composite samples were created from THM sinks collected from Tajiri (9 composites) and Tajiri North (4 composites) and were submitted to Diamantina Laboratories for 300 point modal assemblage. To ensure that the composites were representative of each of the mineralised zones, each composite was made up of THM assays weighted on the contributing THM grades, taken along and across strike within each deposit based on preliminary inspection and logging of THM sinks (sachet logging). These composite samples were then magnetically separated to produce a 1st magnetic, 2nd magnetic and non-magnetic mineral fraction. Each of these fractions is then mounted in epoxy resin for grain counting / modal analysis. The resultant mineral species that are identified are then combined to produce a final weighted percentage for each heavy mineral species. All attempts were made to combine material from domains of similar THM grade, and mineralogy.



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## **Estimation Methodology**

Geological interpretation, wireframing, 3D block modelling and grade interpolation was carried out using CAE Mining / Datamine Studio mining software. Construction of the geological grade model was based on a combination of coding model cells and drill holes below open wireframe surfaces, including topography and basement and inside closed wireframes defined by mineralised domains. Modelling convention has the largest parent cell size possible used which is generally based on half the distance between holes of the dominant drill hole spacing in the X and Y dimensions. Cell dimensions are generally used so as to avoid overly small cells that imply a level of refinement in the model that is not justified by the drill hole spacing. The dominant drill grid spacing for the Tajiri deposit was 400 metres along strike × 50 m across strike × 1.5 metres down hole (with some drill holes spaced 100 metres across strike). This led to the selection of parent cell dimensions in XYZ of 25 x 200 x 1.5 metres in order to have a floating cell between drill holes and drill lines. The dominant drill grid spacing for the Tajiri North deposit was 400 metres along strike × 200 m across strike × 1.5 metres down hole. This led to the selection of parent cell dimensions in XYZ of 100 x 200 x 1.5 metres in order to have a floating cell between drill holes and drill lines.

A model was generated for each deposit and interpolated using inverse distance weighting (with a power of 3) and the preliminary estimates were compared with drill hole grades. It was found that this cell size and parameters chosen were resulting in an acceptable interpolation process. The search ellipse used for the grade interpolation was guided by the dynamic ellipsoid routine employed by Datamine. This allows for variations in mineralisation strike, dip and plunge to be accounted for during the grade interpolation. The mineral assemblage composite identifiers were interpolated into the block model utilising a nearest neighbour method. Variography was carried out prior to interpolation as part of developing search ellipse directions and sizes. Resulting variograms were used to test the drill spacing (and continuity of HM grade) and these supported the final selected JORC Mineral Resource category.

A bulk density (BD) was applied to the model using a standard linear formula originally described by Baxter (1977). This approach was refined in a practical application by this author using first principles calculations. The resultant graph and regression formula was then used to calculate the conversion of tonnes from each cell volume and from there the calculation of material, HM and SLIMES tonnes. The formula used was:

$$\text{Bulk Density} = (0.0108 * \text{THM}) + 1.686$$

## **Cut-off grades**

A cut-off-grade of 1.7%THM was selected for each deposit based on grade tonnage curves and the high percentage of valuable heavy mineral (VHM).

## **Classification criteria**

The Tajiri and Tajiri North Mineral Resource estimates have been assigned a JORC classification of Indicated Mineral Resource which is supported by the following criteria:

- drill hole spacing; and
- distribution and weighting of mineral assemblage composites.

The density/number of samples and distribution of mineral assemblage composites is to an adequate level of density for the JORC Classification. The drill hole spacing for the Tajiri North deposit is wider across strike than for Tajiri, however the interpreted mineralisation style at Tajiri North is dunal, and therefore more homogenous, as opposed to an interpreted strandline at Tajiri.

The distribution of the mineral assemblage composites throughout each of the deposits has enabled a clear picture – even at this early stage of exploration and development – to be gained of the VHM grade and distribution for each deposit.

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## **Mining and metallurgical methods and parameters**

The Company has undertaken heavy mineral composite analyses of both the Tajiri and Tajiri North mineral resources which has provided detailed data for the VHM assemblage from the total heavy mineral. This information compares favorably with the closest operational mineral sands mine – Kwale, located in Kenya – owned by ASX listed company Base Resources.

Additional mineral species chemistry and processing analysis is required from a representative bulk sample to understand product recoveries and specification of products required for marketing purposes. No mining studies have yet been undertaken on the Tanga South prospects.

For further enquiries, please contact:

**Tom Eadie**

Managing Director

Strandline Resources Limited

T: +61 8 9226 3130

E: [enquiries@strandline.com.au](mailto:enquiries@strandline.com.au)

Website: [www.strandline.com.au](http://www.strandline.com.au)

For media and broker enquiries:

**Andrew Rowell**

Cannings Purple

T: +61 8 6314 6314

E: [arowell@canningspurple.com.au](mailto:arowell@canningspurple.com.au)

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## **Competent Person's Statements**

The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation prepared by Dr Mark Alvin, a consultant to Strandline and Mr Brendan Cummins, a part time employee of Strandline. Dr Alvin is a Member of The Australasian Institute of Mining and Metallurgy and Mr Cummins is a member of the Australian Institute of Geoscientists and they both have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been undertaken to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Alvin and Mr Cummins consent to the inclusion in this release of the matters based on the information in the form and context in which they appear.

The information in this report that relates to Mineral Resources is based on, and fairly represents, information and supporting documentation prepared by Mr Greg Jones, (Consultant to Strandline and Principal with GNJ Consulting) and Mr Brendan Cummins (Chief Geologist and part-time employee of Strandline). Mr Jones is a member of the Australian Institute of Mining and Metallurgy and Mr Cummins is a member of the Australian Institute of Geoscientists and both have sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Specifically, Mr Cummins is the Competent Person for the drill database, geological model interpretation and completed the site inspection. Mr Jones is the Competent Person for the resource estimation. Mr Jones and Mr Cummins consent to the inclusion in this report of the matters based on their information in the form and context in which they appear.

## **Forward Looking Statements**

This report contains certain forward looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside of the control of Strandline. These risks, uncertainties and assumptions include commodity prices, currency fluctuations, economic and financial market conditions, environmental risks and legislative, fiscal or regulatory developments, political risks, project delay, approvals and cost estimates. Actual values, results or events may be materially different to those contained in this announcement. Given these uncertainties, readers are cautioned not to place reliance on forward looking statements. Any forward looking statements in this announcement reflect the views of Strandline only at the date of this announcement. Subject to any continuing obligations under applicable laws and ASX Listing Rules, Strandline does not undertake any obligation to update or revise any information or any of the forward looking statements in this announcement to reflect changes in events, conditions or circumstances on which any forward looking statements is based.

## Appendix 1

### JORC Code, 2012 Edition – Table 1

#### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<p><i>Nature and quality of sampling (eg 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.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘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 (eg submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>Aircore drilling was used to obtain samples at 1.5m intervals</p> <p>Each 1.5m sample was homogenized within the bag by rotating the sample bag</p> <p>A sample of sand, approx. 20gm, is scooped from the sample bag for visual THM% estimation and logging. The same sample mass is used for every pan sample for visual THM% estimation</p> <p>The standard sized sample is to ensure calibration is maintained for consistency in visual estimation</p> <p>A sample ledger is kept at the drill rig for recording sample intervals and sample mass, and photographs are taken of samples for each hole to cross-reference with logging</p> <p>The large 1.5m Aircore drill samples have an average of about 8kg and were split down to approximately 1000gm by riffle splitter for export to the processing laboratory</p> <p>The laboratory sample was dried, de-slimed (removal of -45µm fraction) and then had oversize (+1mm fraction) removed. Approximately 100gm of sample was then split to use for heavy liquid separation using TBE to determine total heavy mineral content</p>
Drilling techniques	<p><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).</i></p>	<p>Aircore drilling with inner tubes for sample return was used</p> <p>Aircore is considered a standard industry technique for HMS mineralization. Aircore drilling is a form of reverse circulation drilling where the sample is collected at the face and returned inside the inner tube</p> <p>Aircore drill rods used were 3m long</p> <p>NQ diameter (76mm) drill bits and rods were used</p> <p>All drill holes were vertical</p>
Drill sample recovery	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>Whether a relationship exists between sample recovery and grade and whether</i></p>	<p>Drill sample recovery is monitored by measuring and recording the total mass of each 1.5m sample at the drill rig with a standard spring balance</p> <p>While initially collaring the hole, limited sample recovery can occur in the initial 0.0m to 1.5m sample interval owing to sample and air loss into the surrounding loose soil</p>



Criteria	JORC Code explanation	Commentary
	<i>sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	<p>The initial 0.0m to 1.5m sample interval is drilled very slowly in order to achieve optimum sample recovery</p> <p>The entire 1.5m sample is collected at the drill rig in large numbered plastic bags for dispatch to the initial split preparation facility</p> <p>At the end of each drill rod, the drill string is cleaned by blowing down with air to remove any clay and silt potentially built up in the sample pipes</p> <p>The twin-tube aircore drilling technique is known to provide high quality samples from the face of the drill hole</p> <p>Wet and moist samples are placed into large plastic basins to dry prior to splitting</p>
<i>Logging</i>	<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>The 1.5m aircore samples were each qualitatively logged onto paper field sheets prior to digital entry into an Microsoft Excel spreadsheet</p> <p>The aircore samples were logged for lithology, colour, grainsize, rounding, sorting, estimated THM%, estimated Slimes% and any relevant comments - such as slope, vegetation, or cultural activity</p> <p>Every drillhole was logged in full</p> <p>Logging is undertaken with reference to a Drilling Guideline with codes prescribed and guidance on description to ensure consistent and systematic data collection</p>
<i>Sub-sampling techniques and sample preparation</i>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>The entire 1.5m drill sample collected at the source was dispatched to a sample preparation facility to split with a riffle splitter to reduce sample size</p> <p>The water table depth was noted in all geological logs if intersected</p> <p>Samples with aggregates are gently hit with a rubber mallet to break them down so the sample will flow easily through the splitter chutes</p> <p>A total of 1000 to 1300gm of each sample was inserted into calico sample bags and exported to Diamantina Laboratory for analysis</p> <p>Employees undertaking the splitting are closely monitored by a geologist to ensure sampling quality is maintained</p> <p>Almost all of the samples are sand, silty sand, sandy silt, clayey sand or sandy clay and this sample preparation method is considered appropriate</p> <p>The sample sizes were deemed suitable to reliably capture THM, slime, and oversize characteristics, based on industry experience of the geologists involved and consultation with laboratory staff</p> <p>Field duplicates of the samples were completed at a frequency of 1 per 25 primary samples</p> <p>Standard Reference Material samples are inserted into the sample stream in</p>

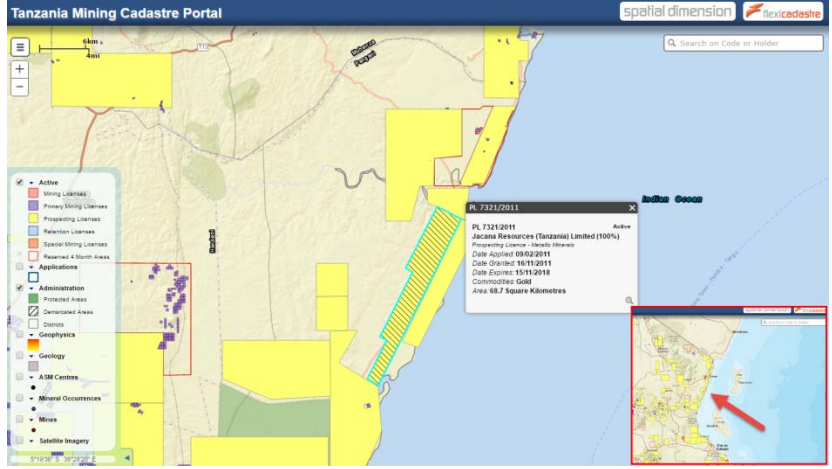
Criteria	JORC Code explanation	Commentary
<i>Quality of assay data and laboratory tests</i>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, 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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	<p>the field at a frequency of 1 per 50 samples</p> <p>The wet panning at the drill site provides an estimate of the THM% which is sufficient for the purpose of determining approximate concentrations of THM in the first instance</p> <p>Aircore sample:</p> <p>The individual 1.5m aircore sub-samples (approx. 1000gm) were assayed by Diamantina Laboratories in Perth, Western Australia, which is considered the Primary laboratory</p> <p>The aircore samples were first screened for removal and determination of Slimes (-45µm) and Oversize (+1mm), then the sample was analysed for total heavy mineral (-1mm to +45µm) content by heavy liquid separation</p> <p>The laboratory used TBE as the heavy liquid medium – with density range between 2.92 and 2.96 g/ml</p> <p>This is an industry standard technique</p> <p>Field duplicates of the samples were collected at a frequency of 1 per 25 primary samples</p> <p>Diamantina Laboratory completed its own internal QA/QC checks that included bulk standards and laboratory duplicates every 20th sample prior to the results being released</p> <p>Analysis of QA/QC samples show the laboratory data to be of acceptable accuracy and precision</p> <p>The density of the heavy liquid was checked every morning and then after every 20 samples by volumetric flask</p> <p>The adopted QA/QC protocols are acceptable for this stage test work</p> <p>1/40 samples from the Primary Laboratory have been sent to a Secondary Laboratory for check analysis and have been found to have very good repeatability for THM and Slimes.</p>
<i>Verification of sampling and assaying</i>	<i>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.</i>	<p>All results are checked by the Chief Geologist and the Principal consulting geologist</p> <p>The company Chief Geologist and independent geologist make periodic visits to Diamantina Laboratory to observe sample processing</p> <p>A process of laboratory data validation using mass balance is undertaken to identify entry errors or questionable data</p> <p>Field and laboratory duplicate data pairs (THM/oversize/slimes) of each batch are plotted to identify potential quality control issues</p> <p>Standard Reference Material sample results are checked from each sample</p>

Criteria	JORC Code explanation	Commentary
		<p>batch to ensure they are within tolerance (&lt;2SD) and that there is no bias</p> <p>The field and laboratory data has been updated into a master spreadsheet which is appropriate for this stage in the programme. Data validation criteria are included to check for overlapping sample intervals, end of hole match between 'Lithology', 'Sample', 'Survey' files and other common errors</p> <p>No twin holes were drilled in the programme</p> <p>No adjustments are made to the primary assay data</p>
<i>Location of data points</i>	<p><i>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.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>Down hole surveys for shallow aircore holes are not required</p> <p>A handheld GPS was used to identify the positions of the drill holes in the field. The handheld GPS has an accuracy of +/- 10m in the horizontal</p> <p>The datum used is WGS84 and coordinates are projected as UTM zone 37S</p> <p>The drillhole collar elevation was collected from a detailed Digital Terrain Model collected in 2012. One metre contours were generated and the x-y coordinates were cut to the RL using the contour information.</p> <p>The accuracy of the locations is sufficient for this stage of exploration</p>
<i>Data spacing and distribution</i>	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>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.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Various grid spacing was used in the drill program, including 400m x 200m (at Tajiri North deposit), 400m x 100m, and 400m x 50m (at Tajiri deposit)</p> <p>The 200m spaced aircore holes are sufficient to provide a good degree of confidence in geological models and grade continuity within the holes</p> <p>Closer spaced drilling (100m and 50m spaced holes) provide a high degree of confidence in geological models and grade continuity between the holes</p> <p>Each aircore drill sample is a single 1.5m sample of sand intersected down the hole</p> <p>No compositing has been applied to models for values of THM, slime and oversize</p> <p>Compositing of samples was undertaken on HM concentrates for mineral assemblage determination. Composite samples were classified high grade (&gt;2%THM) and low grade (&lt;2%THM)</p>
<i>Orientation of data in relation to geological structure</i>	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>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.</i></p>	<p>The aircore drilling was oriented perpendicular to the strike of mineralization defined by reconnaissance data interpretation</p> <p>The strike of the mineralization is sub-parallel to the contemporary coastline and is known to be relatively well controlled by the 20m topographic contour</p> <p>Drill holes were vertical and the nature of the mineralisation is relatively horizontal</p> <p>The orientation of the drilling is considered appropriate for testing the lateral and vertical extent of mineralization without any bias</p>

Criteria	JORC Code explanation	Commentary
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	<p>Aircore samples remained in the custody of Company representatives while they were transported from the field to Dar es Salaam for final packaging and securing</p> <p>The samples were then sent using Deugro to Perth and delivered directly to the laboratory after quarantine inspection</p> <p>The laboratory inspected the packages and did not report tampering of the samples</p>
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Internal reviews were undertaken

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<p><i>Mineral tenement and land tenure status</i></p>	<p><i>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.</i></p> <p><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</i></p>	<p>The exploration work was completed on tenements that are 100% owned by Strandline in Tanzania</p> <p>The drill samples were taken from tenement PL7321/2011</p> <p>The tenement is 4 years old and was recently reduced by 50% and is valid to 15 Nov. 2018</p> <p>Traditional landowners and village Chiefs of the affected villages were supportive of the drilling program</p> 
<p><i>Exploration done by other parties</i></p>	<p><i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<p>Historic exploration work was completed by Tanganyika Gold in 1998 and 1999. OmegaCorp undertook reconnaissance exploration in 2005 and 2007</p> <p>The Company has obtained the hardcopy reports and maps in relation to this information</p> <p>The historic data comprises surface sampling, limited aircore drilling and mapping</p> <p>The historic results are not reportable under JORC 2012</p>
<p><i>Geology</i></p>	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>Two types of heavy mineral placer style deposits are possible in Tanzania</p> <p>Thin but high grade strandlines which may be related to marine or fluvial influences</p> <p>Large but lower grade deposits related to windblown sands</p>

Criteria	JORC Code explanation	Commentary
		The coastline of Tanzania is not well known for massive dunal systems such as those developed in Mozambique, however some dunes are known to occur and cannot be discounted as an exploration model. Palaeo strandlines are more likely and will be related to fossil shorelines or terraces in a marine or fluvial setting. In Tanzania three terraces have been documented and include the Mtoni terrace (1-5m ASL), Tanga (20-40m ASL) and Sakura Terrace (40 to 60m ASL). Strandline mineral sand accumulations related to massive storm events are thought to be preserved at these terraces above the current sea level.
<i>Drill hole Information</i>	<p><i>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:</i></p> <p><i>easting and northing of the drill hole collar</i></p> <p><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></p> <p><i>dip and azimuth of the hole</i></p> <p><i>down hole length and interception depth</i></p> <p><i>hole length.</i></p> <p><i>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.</i></p>	The drill hole data are reported
<i>Data aggregation methods</i>	<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p><i>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.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	Details of data aggregation are reported
<i>Relationship between mineralisation widths and intercept lengths</i>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg ‘down hole length, true width not known’).</i></p>	The nature of the mineralisation is broadly horizontal, thus vertical aircore holes are thought to represent close to true thicknesses of the mineralisation Downhole widths are reported
<i>Diagrams</i>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts</i>	Figures and plans are displayed in the main text of the Release

Criteria	JORC Code explanation	Commentary
	<i>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.</i>	
<i>Balanced reporting</i>	<i>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.</i>	All results > 1.7% THM have been reported – <b>refer to Appendix 2</b>
<i>Other substantive exploration data</i>	<i>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.</i>	<p>Detailed mineral assemblage work was undertaken on composite samples for the Tajiri and Tajiri North deposits by Diamantina Laboratory using binocular microscopy and 300 grain point count analysis (<b>refer to Appendix 3</b>)</p> <p>All HM concentrates of samples with &gt;2%THM from each two adjacent drill traverses were composited at Tajiri to create 4 ‘high grade’ composites and at Tajiri North to create 2 ‘high grade’ composites</p> <p>All HM concentrates of samples with &lt;2%THM from each two adjacent drill traverses were composited at Tajiri to create 4 ‘low grade’ composites and at Tajiri North to create 2 ‘low grade’ composites</p> <p>Each composite HM concentrate sample underwent magnetic separation to create 4 fractions – high magnetic susceptibility fraction, magnetic fraction 1, magnetic fraction 2, and non-magnetic fraction</p> <p>The graincount method was used to determine mineral assemblage of each fraction and then define valuable heavy mineral proportions</p> <p>Historic data for the area around Tajiri has shown the Ti content of the ilmenite to average 50-52% TiO<sub>2</sub></p> <p>Detailed aerial geophysics was flown over the lease in 2012</p>
<i>Further work</i>	<i>The nature and scale of planned further work (eg 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.</i>	<p>Additional Aircore drilling is planned to further enhance confidence levels and extend zones of mineralization</p> <p>Additional work required for the determination of bulk density</p> <p>As the project advances TiO<sub>2</sub> and contaminant test work will be undertaken on ilmenite concentrates</p> <p>Bench-scale testing of a large sand sample for determination of process recovery is planned</p>

### 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
<b>Database integrity</b>	<p><i>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.</i></p> <p><i>Data validation procedures used.</i></p>	<p>Original laboratory files used to populate exploration database assay tables via an automatic software assay importer where available.</p> <p>Checks of data by visually inspecting on screen (to identify translation of samples), duplicate and twin drilling was visually examined to check the reproducibility of assays.</p> <p>Database assay values have been subjected to random reconciliation with laboratory certified value is to ensure agreement.</p> <p>Visual and statistical comparison was undertaken to check the validity of results</p>
<b>Site visits</b>	<p><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></p> <p><i>If no site visits have been undertaken indicate why this is the case.</i></p>	<p>Regular site trips before and during the resource drilling phase were undertaken by Brendan Cummins. Mr Cummins was onsite between the 24<sup>th</sup> to 26<sup>th</sup> November 2015 to observe the drilling and data collection activities</p>
<b>Geological interpretation</b>	<p><i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></p> <p><i>Nature of the data used and of any assumptions made.</i></p> <p><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></p> <p><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></p> <p><i>The factors affecting continuity both of grade and geology.</i></p>	<p>The geological interpretation was undertaken by Brendan Cummins and data was used by GNJ Consulting and then validated using all logging and sampling data and observations.</p> <p>Current data spacing and quality is sufficient to indicate grade continuity. The possibility of narrow washouts between drill lines exists but they are not considered likely.</p> <p>Interpretation of modelling domains was restricted to the main mineralised envelopes utilising THM sinks and geology logging.</p> <p>No other interpretations were considered as the Competent Person was satisfied that the sachet logging which was used to define the mineral assemblage composites was effective in outlining the major mineralogical domains. This is the primary objective for any mineral sands resource estimation.</p> <p>The Mineral Resource estimate was controlled to an extent by the geological envelope and basement surfaces.</p> <p>The mineralisation for both Tajiri and Tajiri North has been truncated at surface by erosion of the original deposit</p>
<b>Dimensions</b>	<p><i>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.</i></p>	<p>The Mineral Resource for Tajiri is approximately 3 km long and 800 m wide on average. The deposit ranges in thickness from approximately 2 to 13 m. A Tajiri North the resource is 2.5km long and 2km wide with thickness ranging from 2 to 10m</p>



Criteria	JORC Code explanation	Commentary
<b>Estimation and modelling techniques</b>	<p><i>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.</i></p> <p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p> <p><i>The assumptions made regarding recovery of by-products.</i></p> <p><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></p> <p><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></p> <p><i>Any assumptions behind modelling of selective mining units.</i></p> <p><i>Any assumptions about correlation between variables.</i></p> <p><i>Description of how the geological interpretation was used to control the resource estimates.</i></p> <p><i>Discussion of basis for using or not using grade cutting or capping.</i></p> <p><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></p>	<p>The mineral resource estimate was conducted using CAE mining software (also known as Datamine Studio). Inverse distance weighting techniques were used to interpolate assay grades from drill hole samples into the block model and nearest neighbour techniques were used to interpolate index values and nonnumeric sample identification into the block model. The mostly regular dimensions of the drill grid and the anisotropy of the drilling and sampling grid allowed for the use of inverse distance methodologies as no de-clustering of samples was required. Appropriate and industry standard search ellipses were used to search for data for the interpolation and suitable limitations on the number of samples and the impact of those samples was maintained. An inverse distance weighting of three was used so as not to over smooth the grade interpolations. Hard domain boundaries were used and these were defined by the geological wireframes that were interpreted.</p> <p>This is the maiden Mineral Resource estimate for the Tajiri and Tajiri North deposits and there were no previous resource estimates.</p> <p>No assumptions were made during the resource estimation as to the recovery of byproducts.</p> <p>Slimes and oversize contents are estimated at the same time as estimating the THM grade. Further detailed geochemistry is required to ascertain deleterious elements that may affect the marketability of the heavy mineral products</p> <p>The average parent cell size used for the interpolation was approximately half the standard drill hole width and a half the standard drill hole section line spacing. Given that the average drill hole spacing for Tajiri was 50 m east-west and 400 m north south and with 1.5 m samples the parent cell size was 25 x 200 x 1.5 m (where the Z or vertical direction of the cell was nominated as the same distance as the sample length).</p> <p>The average drill hole spacing for Tajiri North was 200 m east-west and 400 m north south and with 1.5 m samples and so the parent cell size was 100 x 200 x 1.5 m (where the Z or vertical direction of the cell was nominated as the same distance as the sample length).</p> <p>No assumptions were made regarding the modelling of selective mining units however it is assumed that a form of dry mining will be undertaken and the cell size and the sub cell splitting will allow for an appropriate dry mining preliminary reserve to be prepared. Any other mining methodology will be more than adequately catered for with the parent cell size that was selected for the modelling exercise.</p> <p>No assumptions were made about correlation between variables.</p>

Criteria	JORC Code explanation	Commentary
		<p>The Mineral Resource estimates were controlled to an extent by the geological / mineralisation and basement surfaces.</p> <p>Grade cutting or capping was not used during the interpolation because of the regular nature of sample spacing and the fact that samples were not clustered nor wide spaced to an extent where elevated samples could have a deleterious impact on the resource estimation.</p> <p>Sample distributions were reviewed and no extreme outliers were identified either high or low that necessitated any grade cutting or capping.</p> <p>The sample length of 1.5 m does result in a degree of grade smoothing also negating the requirement for grade cutting or capping.</p> <p>Validation of grade interpolations were done visually In CAE Studio (Datamine) software by loading model and drill hole files and annotating and colouring and using filtering to check for the appropriateness of interpolations.</p> <p>Statistical distributions were prepared for model zones from drill hole and model files to compare the effectiveness of the interpolation. Along strike distributions of section line averages (swath plots) for drill holes and models were also prepared for comparison purposes</p>
<b>Moisture</b>	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	Tonnages were estimated an assumed dry basis. A bulk density algorithm was prepared using first principles techniques coupled with industry experience that is exclusive to GNJ Consulting. We believe the bulk density formula to be appropriate and fit for purpose at this level of confidence for the Mineral Resource estimates.
<b>Cut-off parameters</b>	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	Cut-off grades for HM and SLIMES as well as hardness were used to prepare the reported resource estimates. These cut-off grades were defined by GNJ Consulting as being based soundly on experience, the percentage of VHM and the grade tonnage curves taken in consideration with the grade distribution along the length of the deposits.
<b>Mining factors or assumptions</b>	<i>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.</i>	No specific mining method is assumed other than potentially the use of dry mining scrapers and excavators into trucks. This allows for quite a selective mining process while still maintaining bulk economies of scale as the dark HM at the base of the orebody allows for excellent visual acuity and therefore grade control. To this end no minimum thickness was assumed for the reporting of the mineral resource.
<b>Metallurgical</b>	<i>The basis for assumptions or predictions regarding metallurgical amenability. It</i>	Metallurgical assumptions were used based on mineral assemblage composites

Criteria	JORC Code explanation	Commentary
<b>factors or assumptions</b>	<i>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.</i>	which at this stage only allow for preliminary commentary with no detailed chemistry or sizing of mineral species.
<b>Environmental factors or assumptions</b>	<i>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.</i>	No assumptions have been made regarding possible waste and process residue however disposal of byproducts such as SLIMES, sand and oversize are normally part of capture and disposal back into the mining void for eventual rehabilitation. This also applies to mineral products recovered and waste products recovered from metallurgical processing of heavy mineral.
<b>Bulk density</b>	<i>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.</i>	The bulk density used for the Tajiri and Tajiri North deposits is one that has been developed by GNJ Consulting from experience of working with these styles of ore bodies. A bulk density algorithm was prepared using first principles techniques coupled with industry experience that is exclusive to GNJ Consulting. We believe the bulk density formula to be appropriate and fit for purpose at this level of confidence for the Mineral Resource estimates. The bulk density is calculated as an in situ dry bulk density and once material has been dug up invariably this bulk density cannot be used. The bulk density is however used on wet poured HMC (heavy mineral concentrate) from mining and concentrating and is successful at estimating density and therefore tonnages for stockpiles.
<b>Classification</b>	<i>The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie 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.</i>	The resource classification for the Tajiri and Tajiri North deposits was based on the following criteria: drill hole spacing and the distribution of bulk samples. The classification of the Indicated Resources was supported by all of the supporting criteria as noted above. As a Competent Person, GNJ Consulting Principal Greg Jones considers that the result appropriately reflects a reasonable view of the deposit categorisation.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of Mineral Resource estimates.</i>	No audits or reviews of the mineral resource estimate have been undertaken at this point in time.

Criteria	JORC Code explanation	Commentary
<b>Discussion of relative accuracy/confidence</b>	<p><i>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.</i></p> <p><i>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.</i></p> <p><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>There was no geostatistical process undertaken (such as variography or conditional simulation) during the resource estimation of the Tajiri and Tajiri North deposits. Qualitative assessment of the mineral resource estimate along with comparison with previous resource estimates by other workers (within a tolerance of +/- 5 per cent) points to the robustness of this particular resource estimation exercise.</p> <p>Validation of the model vs drill hole grades by observation, swathe plot and population distribution analysis was favourable</p> <p>The statement refers to global estimates for the entire known extent of the Tajiri and Tajiri North deposits.</p> <p>No production data is available for comparison with the Tajiri and Tajiri North deposit.</p>

## Appendix 2: Downhole Drill Intersects

### Tajiri

Hole Id	Easting (WGS84)	Northing (WGS84)	RL	Azimuth	Dip	End of Hole Depth	From	To	Intersect	THM (%)	Slimes (%)	Oversize (%)
15TJAC078	489971	9383609	36.06	0	90	21	0	9	9	4.95	36.06	0.6
15TJAC079	490052	9383559	34.56	0	90	15	0	7.5	7.5	5.2	32.43	2.89
15TJAC080	490137	9383515	29.43	0	90	12	0	3	3	2.83	21.47	0.5
15TJAC080	490137	9383515	26.43	0	90	12	3	6	3	2.32	39.26	1.87
15TJAC081	490225	9383464	28	0	90	15.5	0	7.5	7.5	3.15	37.66	1.7
15TJAC081	490225	9383464	20.5	0	90	15.5	7.5	10.5	3	2.55	52.68	0.8
15TJAC082	490398	9383368	26.43	0	90	13.5	0	4.5	4.5	12.75	33.2	1.01
15TJAC082	490398	9383368	21.93	0	90	13.5	4.5	7.5	3	3.16	40.64	3.91
15TJAC083	490350	9383392	27.9	0	90	18	0	10.5	10.5	5.04	33.44	2.1
15TJAC083	490350	9383392	17.4	0	90	18	10.5	12	1.5	4.13	46.64	0.86
15TJAC084	490510	9383761	27.9	0	90	9	0	4.5	4.5	2.16	36.61	1.55
15TJAC085	490432	9383802	27.22	0	90	13.5	0	1.5	1.5	2.2	23.33	0.66
15TJAC086	490340	9383846	30.14	0	90	12	0	6	6	2.34	40.05	1.65
15TJAC086	490340	9383846	24.14	0	90	12	6	7.5	1.5	3.64	48.3	4.43
15TJAC087	490251	9383894	33.87	0	90	18	0	9	9	4.99	27.36	2.47
15TJAC087	490251	9383894	24.87	0	90	18	9	10.5	1.5	1.88	45.5	1.13
15TJAC088	490294	9383875	31.99	0	90	15	0	7.5	7.5	3.95	27.44	2.14
15TJAC088	490294	9383875	24.49	0	90	15	7.5	9	1.5	3.05	45.97	1.59
15TJAC089	490207	9383925	35.87	0	90	24	0	10.5	10.5	8.26	25.88	4.27
15TJAC089	490207	9383925	25.37	0	90	24	10.5	12	1.5	1.99	44.16	1.28
15TJAC090	490167	9383953	37.92	0	90	21	0	9	9	6.47	27.75	1.46
15TJAC091	490127	9383970	38.64	0	90	21	0	9	9	6.19	31.37	1.14
15TJAC092	490081	9383989	36.07	0	90	21	0	6	6	7.17	35.58	0.89
15TJAC092	490081	9383989	30.07	0	90	21	6	9	3	2.12	45.95	0.66
15TJAC093	490037	9384019	35	0	90	21	0	4.5	4.5	1.98	36.28	1.54
15TJAC095	490196	9384383	31.04	0	90	18	3	6	3	1.72	40	4.23
15TJAC096	490229	9384363	33.77	0	90	18	0	7.5	7.5	2.12	42.04	1.06
15TJAC097	490272	9384340	34.2	0	90	18	0	6	6	3.8	37.31	1.44
15TJAC097	490272	9384340	28.2	0	90	18	6	7.5	1.5	2.11	45.26	0.42
15TJAC098	490314	9384315	34.94	0	90	16.5	0	6	6	6.22	29.68	2.4
15TJAC098	490314	9384315	28.94	0	90	16.5	6	7.5	1.5	2.29	42.13	1.72
15TJAC099	490356	9384289	35	0	90	18	0	7.5	7.5	8.82	29.68	5.12
15TJAC099	490356	9384289	27.5	0	90	18	7.5	10.5	3	2.06	43.87	0.73
15TJAC100	490401	9384268	34.17	0	90	18	0	7.5	7.5	4.23	35.5	1.77
15TJAC100	490401	9384268	26.67	0	90	18	7.5	10.5	3	1.97	43.82	0.68
15TJAC101	490447	9384246	32.54	0	90	21	0	7.5	7.5	6.58	34.33	3.17
15TJAC101	490447	9384246	25.04	0	90	21	7.5	10.5	3	2.41	46.76	0.57

Hole Id	Easting (WGS84)	Northing (WGS84)	RL	Azimuth	Dip	End of Hole Depth	From	To	Intersect	THM (%)	Slimes (%)	Oversize (%)
15TJAC102	490487	9384218	30.85	0	90	18	0	7.5	7.5	3.93	30.34	6.57
15TJAC103	490543	9384194	28.3	0	90	12	0	6	6	3.08	30.73	1.25
15TJAC103	490543	9384194	22.3	0	90	12	6	7.5	1.5	2.47	33.7	5.83
15TJAC104	490578	9384161	27.82	0	90	9	0	4.5	4.5	2.56	36.88	1.63
15TJAC104	490578	9384161	23.32	0	90	9	4.5	6	1.5	2.14	54.83	1.2
15TJAC105	490623	9384138	28.53	0	90	9	0	3	3	2.31	34.93	1.16
15TJAC105	490623	9384138	25.53	0	90	9	3	4.5	1.5	2.08	36.15	2.72
15TJAC106	490670	9384112	29.3	0	90	6	0	3	3	2.63	38.14	0.89
15TJAC107	490711	9384088	29.28	0	90	6	0	3	3	2.4	41.19	1.29
15TJAC108	490746	9384067	28.43	0	90	4.5	0	1.5	1.5	3.09	35.59	7.07
15TJAC108	490746	9384067	26.93	0	90	4.5	1.5	3	1.5	1.82	31.05	25.03
15TJAC116	490961	9384412	26.25	0	90	10.5	0	7.5	7.5	4.2	24.85	1.94
15TJAC116	490961	9384412	18.75	0	90	10.5	7.5	9	1.5	2.07	31.9	18.72
15TJAC117	490912	9384434	30.28	0	90	6	0	3	3	3.92	27.42	0.39
15TJAC117	490912	9384434	27.28	0	90	6	3	4.5	1.5	2.03	35.94	21.61
15TJAC118	490872	9384456	32.47	0	90	7	0	4.5	4.5	4.51	25.95	0.72
15TJAC119	490842	9384490	34.12	0	90	7.5	0	6	6	6.62	24.78	1.73
15TJAC120	490861	9384595	34.34	0	90	10.5	0	7.5	7.5	11.16	25.22	2.74
15TJAC120	490861	9384595	26.84	0	90	10.5	7.5	9	1.5	2.2	36.94	30.66
15TJAC121	490799	9384627	35.35	0	90	10.5	0	9	9	10.38	28.74	6.02
15TJAC122	490694	9384557	33.5	0	90	10.5	0	7.5	7.5	13.16	32.76	1.59
15TJAC123	490648	9384584	32.67	0	90	15	0	7.5	7.5	16.1	30.63	0.94
15TJAC123	490648	9384584	25.17	0	90	15	7.5	10.5	3	1.94	40.04	2.14
15TJAC124	490609	9384604	32.76	0	90	18	0	7.5	7.5	17.69	28.28	2.07
15TJAC124	490609	9384604	25.26	0	90	18	7.5	9	1.5	2.28	40.99	1.48
15TJAC125	490564	9384623	32.75	0	90	15	0	7.5	7.5	4.69	31.06	0.75
15TJAC126	490521	9384649	31.87	0	90	18	0	6	6	3.14	34.06	1.41
15TJAC127	490478	9384678	30.99	0	90	15	0	1.5	1.5	2.11	42.8	0.61
15TJAC128	490365	9384749	29.15	0	90	15	3	4.5	1.5	1.81	47.84	3.46
15TJAC131	490829	9384948	32.56	0	90	6	0	1.5	1.5	2.13	41.92	0.86
15TJAC132	490885	9384922	34.24	0	90	9	0	6	6	3.64	37.7	1.36
15TJAC133	490930	9384903	35.07	0	90	10.5	0	7.5	7.5	12.44	28.98	4
15TJAC134	490960	9384883	34.51	0	90	18.4	0	10.5	10.5	11.39	30.79	1.75
15TJAC135	491007	9384847	32.43	0	90	15	0	15	15	7.38	24.13	1.6
15TJAC136	491054	9384823	29.68	0	90	18	0	10.5	10.5	5.19	27.02	3.15
15TJAC137	491093	9384793	25.49	0	90	13.5	0	7.5	7.5	4.21	22.77	4.15
15TJAC138	491141	9384766	22.85	0	90	7.5	0	4.5	4.5	2.24	25.15	3.83
15TJAC140	491230	9384722	18.62	0	90	7.5	3	4.5	1.5	2.01	26.1	3.91
15TJAC141	491267	9384701	21.2	0	90	7.7	0	4.5	4.5	1.91	25.47	2.52
15TJAC145	491242	9385171	25.85	0	90	18	0	7.5	7.5	3.93	25.75	4.04
15TJAC146	491154	9385210	28.46	0	90	22.5	0	16.5	16.5	7.33	33.56	2.68

Hole Id	Easting (WGS84)	Northing (WGS84)	RL	Azimuth	Dip	End of Hole Depth	From	To	Intersect	THM (%)	Slimes (%)	Oversize (%)
15TJAC147	491192	9385191	27.6	0	90	21	0	15	15	4.8	33.95	4.13
15TJAC148	491114	9385243	29.75	0	90	24	0	15	15	3.89	36.22	1.95
15TJAC148	491114	9385243	8.75	0	90	24	21	22.5	1.5	2.07	46.72	0.82
15TJAC149	491006	9385293	30.81	0	90	7.5	0	1.5	1.5	1.81	46.32	0.52
15TJAC150	490881	9385364	22.89	0	90	16.5	10.5	12	1.5	2.21	54.16	2.2
15TJAC152	491281	9385599	17.32	0	90	21	12	15	3	1.75	42.07	2.64
15TJAC153	491378	9385549	24.19	0	90	16.5	1.5	10.5	9	1.98	39.29	1.78
15TJAC154	491458	9385514	23.48	0	90	18	0	10.5	10.5	2.39	30.54	2.39
15TJAC160	491625	9385916	26.65	0	90	15	0	4.5	4.5	2.45	46.98	0.91

## Tajiri North

15TNAC001	497302	9398183	38.14	0	90	9	0	6	6	3.02	51.34	2.11
15TNAC002	497154	9398266	53.68	0	90	3	0	3	3	2.31	38.07	23.96
15TNAC003	496981	9398371	76.71	0	90	4.5	0	1.5	1.5	2.83	57.53	1.23
15TNAC004	496861	9398477	80	0	90	9	0	4.5	4.5	3.4	55.55	0.74
15TNAC005	496709	9398064	77.34	0	90	6	0	3	3	2.99	55.1	0.58
15TNAC006	496557	9398155	84.25	0	90	12	0	9	9	2.13	56.07	0.82
15TNAC007	496391	9398244	87.73	0	90	9	0	6	6	2.57	48.09	0.94
15TNAC008	496628	9398558	83.19	0	90	12	0	7.5	7.5	2.44	51.19	0.76
15TNAC009	496446	9398652	84.7	0	90	12	0	9	9	2.75	46.17	1.12
15TNAC010	496302	9398737	84.13	0	90	15	0	10.5	10.5	3	50.26	1.15
15TNAC011	496127	9398845	71.99	0	90	9	0	3	3	1.92	45.35	1.28
15TNAC012	496202	9398334	88.45	0	90	9	0	6	6	4.21	54.6	0.7
15TNAC013	496038	9398433	79.8	0	90	9	0	6	6	2.65	55.01	3.37
15TNAC014	495861	9398545	71.09	0	90	6	0	1.5	1.5	2.71	52.88	5.25
15TNAC015	495769	9398139	72.86	0	90	6	0	3	3	3.9	53.49	8.41
15TNAC016	495934	9398062	84.31	0	90	9	0	6	6	6.23	56.43	3.25
15TNAC017	496118	9397936	86.08	0	90	12	0	7.5	7.5	3.27	53.58	0.87
15TNAC018	496287	9397844	82.63	0	90	9	0	6	6	2.15	51.71	0.73
15TNAC019	496458	9397759	79.7	0	90	12	0	6	6	2.46	59.71	0.9
15TNAC020	496635	9397643	68.48	0	90	9	0	3	3	2.63	56.41	0.81
15TNAC021	496907	9397048	41.45	0	90	15	0	12	12	2.17	41.07	2.13
15TNAC022	496729	9397147	49.37	0	90	6	0	4.5	4.5	2.44	44.5	14.29
15TNAC023	496541	9397181	61.5	0	90	9	0	3	3	2.31	58.79	0.8
15TNAC024	496372	9397338	73.35	0	90	6	0	1.5	1.5	2.05	52.18	12.68
15TNAC025	496200	9397427	80.76	0	90	12	0	7.5	7.5	1.94	55.86	1.41
15TNAC026	496026	9397525	82.91	0	90	12	0	6	6	2.45	50.22	1.37
15TNAC027	495850	9397628	84.71	0	90	16	0	13.5	13.5	4.94	51.95	0.92
15TNAC028	495721	9397702	83.73	0	90	9	0	9	9	7.83	54.5	1.96

Hole Id	Easting (WGS84)	Northing (WGS84)	RL	Azimuth	Dip	End of Hole Depth	From	To	Intersect	THM (%)	Slimes (%)	Oversize (%)
15TNAC029	495523	9397791	79.38	0	90	6	0	3	3	4.06	57.36	0.97
15TNAC031	495236	9397504	76	0	90	9	0	7.5	7.5	2.77	50.55	2.75
15TNAC032	495416	9397382	80.87	0	90	6	0	3	3	4.88	50.69	0.58
15TNAC033	495579	9397299	83.79	0	90	9	0	9	9	6.94	55.19	2.39
15TNAC034	495750	9397222	84.83	0	90	6	0	4.5	4.5	4.87	49.94	0.96
15TNAC035	495917	9397109	81.49	0	90	9	0	7.5	7.5	2.16	54.12	0.72
15TNAC036	496109	9397006	76.84	0	90	6	0	3	3	1.8	52.57	0.58
15TNAC037	496301	9396930	71.87	0	90	3	0	1.5	1.5	2	58.88	0.93
15TNAC038	495645	9396766	83.02	0	90	12	0	9	9	2.05	52.6	0.57
15TNAC040	495996	9396577	74.94	0	90	9	1.5	4.5	3	1.83	58.05	0.5
15TNAC041	496155	9396457	69.75	0	90	6	0	3	3	2.13	60.11	0.75
15TNAC042	496332	9396359	59.08	0	90	6	0	1.5	1.5	2.89	52.38	1.98
15TNAC044	495895	9396144	72.55	0	90	9	0	3	3	1.82	55.75	0.42
15TNAC046	495539	9396344	77.72	0	90	10.5	1.5	3	1.5	1.76	47.18	0.62
15TNAC047	495408	9396505	81	0	90	10.5	0	7.5	7.5	2.83	54.38	0.92
15TNAC048	495210	9396573	80.21	0	90	9	0	6	6	2.2	51.22	0.46
15TNAC050	495118	9397046	77.63	0	90	7.5	0	7.5	7.5	2	52.47	0.97
15TNAC051	495304	9396967	78.14	0	90	10.5	0	6	6	1.93	53.45	0.98
15TNAC052	495489	9396864	82.53	0	90	12	0	10.5	10.5	2.91	54.54	1.35



### Appendix 3. Modal composite analysis data

Composite Number	Resource Area	Ilmenite (%)	Rutile (%)	Leucoxene (%)	Zircon (%)	VHM total of the THM (%)
TN001	Tajiri North	71	7	2	6	86
TN002	Tajiri North	71	9	1	5	86
TN003	Tajiri North	71	7	1	5	84
TN004	Tajiri North	66	7	1	4	78
TA001	Tajiri	66	12	6	7	91
TA002	Tajiri	58	12	9	5	84
TA003	Tajiri	64	13	7	7	91
TA004	Tajiri	64	12	6	5	87
TA005	Tajiri	69	12	3	5	89
TA006	Tajiri	59	10	8	4	81
TA007	Tajiri	64	11	7	5	87
TA008	Tajiri	63	9	7	5	84