Titanium Resources Group announces initial JORC-Compliant Measured and Indicated Resources for its Sierra Rutile Mine

Background

The Sierra Rutile Ltd ("SRL") properties, 95.2% owned by Titanium Resources Group Ltd ("TRG") and 4.8% by the Government of Sierra Leone, are located near the Imperi Hills on the coastal plain of southern Sierra Leone, approximately 135 km southeast of the capital Freetown. The bulk of the deposits occur in two clusters in the Gbangbama hills area; ML011/72, the Area One deposits, and the Sembehun area, (ML15/72) (Figure 1). The deposits are proximal alluvial placers in origin, infilling north-easterly (and north-westerly) trending channels incised during the imposition of the secondary drainage system. The primary source of the rutile is derived from the gneisses of the Kasila Group, which underwent mechanical and chemical degradation to kaolinite and other clay minerals, liberating the rutile and other heavy minerals.

Work was conducted with the assistance of an external consultant during 2010 to update the SRL Mineral Resource estimate in accordance with the JORC Code (2004). This Mineral Resource estimate will be complimented by a revised Ore Reserve estimate on completion of business growth assessments currently underway.
Table 1: January 2011 SRL Mineral Resource (0.8% rutile cut-off grade)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Tonnes (Millions)</th>
<th>Grade (%)</th>
<th>Contained Tonnes (kt)</th>
<th>Heavy Minerals</th>
<th>Rutile</th>
<th>Ilmenite</th>
<th>Zircon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured</td>
<td>4.4</td>
<td>2.30</td>
<td>1.13</td>
<td>0.42</td>
<td>0.18</td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>Indicated</td>
<td>436.6</td>
<td>6.18</td>
<td>1.42</td>
<td>0.74</td>
<td>0.32</td>
<td></td>
<td>26,992</td>
</tr>
<tr>
<td>Measured &amp; Indicated</td>
<td>441.0</td>
<td>6.14</td>
<td>1.42</td>
<td>0.74</td>
<td>0.31</td>
<td></td>
<td>27,095</td>
</tr>
<tr>
<td>Inferred*</td>
<td>163.9</td>
<td>-</td>
<td>0.96</td>
<td>-</td>
<td>-</td>
<td></td>
<td>1,575</td>
</tr>
<tr>
<td>Total Measured, Indicated and Inferred</td>
<td>604.9</td>
<td>-</td>
<td>0.96</td>
<td>-</td>
<td>-</td>
<td></td>
<td>27,095</td>
</tr>
</tbody>
</table>

*Mineral Resources include those resources which have been modified to produce the Ore Reserves. The figures reported represent 100% of the Mineral Resources and Ore Reserves attributable to Sierra Rutile Limited. * Insufficient historical data was available to provide a JORC compliant Heavy Mineral, ilmenite and zircon grade estimate.

Legal Tenure

A total of 20 rutile deposits have been indentified within the SRL tenements, namely:

**ML011/72**
- Bamba/Beleu Deposit
- Mogbewmo Deposit
- Mokula Deposit
- Ndendmoia Deposit
- Pejebu Deposit
- Lanti Deposit
- Gbeni Deposit
- Gangama Deposit
- Taninahun Deposit

**ML012/72**
- Gambia Deposit

**ML013/72**
- Jagbahun Deposit

**ML014/72**
- Nyandehun Deposit

**ML015/72**
- Benduma Deposit
- Kamatipa Deposit
- Dodo Deposit
- Kibi Deposit
- Komendi Deposit
- Gbap Deposit

**ML016/72**
- Taninahun Boka Deposit
Sampling

The drilling of these deposits was carried out using several vertical drill rigs, namely a hollow stem auger, Wallis Aircore, Mechanical Banka and a Stitz drill rig. Down hole sampling was conducted at 0.5 - 1.5 metre intervals and all samples submitted for assay.

Analyses

The majority of drillhole samples have been analysed at the SRL laboratory using a combination of point counting and X-Ray Fluorescence (XRF) techniques. Mineral assemblage data was obtained by compositing the sand fraction of samples from similar geological horizons, screening across a series of size ranges, recovering the heavy minerals by dense liquid media and then conducting a magnetic separation (Permroll Magnet). SRL currently use certified international standards for the calibration of both atomic absorption spectrometry and XRF analyses. Approximately 10% of the samples are represented as duplicate samples to verify both precision and accuracy. Discrepancies between duplicate samples are checked by wet chemistry and an external lab.

Geological Modelling

A geological resource model has been prepared for the SRL deposits using the MineSite mining software. Geological interpretations used to constrain the modelling were prepared by company geologists. The resource estimate was derived from a 3
A dimensional block model constructed using geological and mineralogical domain constraints as per normal company practice. Industry standard block estimation techniques (Inverse Distance weighting and in some instances Kriging) were used to interpolate grades into the model.

A lithological framework for the Gbangbama deposits has been established by SRL from a series of three foot diameter test shafts sunk on a set grid into the known deposits. Density determinations from the shaft samples were determined by weighing the mass of 1 cubic foot volume of dried lithological sample.

Model cells were sized appropriately to provide a balance between representative geological and grade continuity and geostatistical volume variance.

The estimation of the mineral resource tonnes and grade was undertaken using a cut-off of 0.8 per cent rutile and based on:

- statistical evaluation of the sample data;
- current operational practices for dredge mining and concentrating HM strand mineralisation;
- consideration of the lateral and vertical mineralisation distribution;
- the potential mining and extraction methodology; and
- the reasonable prospects for eventual economic extraction as determined by the Competent Person.

The SRL resource has been classified in the Measured, Indicated and Inferred categories, and reported in accordance with the JORC Code guidelines (2004), based on:

- drill hole spacing and sampling density;
- confidence in analytical data;
- established geological continuity; and
- the level of confidence in the rutile and mineralogical grade continuity established by the Competent Person.

The description of the resource estimation is based on information compiled by SRL staff under the review of Mark Button who is a member of South African Council for Natural Scientific Professions and Chief Operating Officer of SRL. Mark Button has sufficient experience which is relevant to this style of mineralisation to qualify as a Competent Person as defined in the 2004 Edition of the JORC Code and consents to the inclusion in the report of the matters based on information in the form and context in which it appears.