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## TANTALUS

RARE EARTHS AG

EANS-News: Tantalus Rare Earths AG  
Update on work progress and  
new results from Target 1, 3, 4 and 5 (with document)

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Company Information/RESOURCE ESTIMATE

Düsseldorf (euro adhoc) - Tantalus Rare Earths AG

(Duesseldorf, 12 October 2011, Tantalus Rare Earths AG) The Directors of Tantalus Rare Earths AG ("TRE"), a German company exploring an extensive area of secondary rare earth mineralisation at surface and primary, near-surface bedrock rare earth ("REE") mineralisation in north-western Madagascar (the "TRE Project"), are pleased to announce a general update on the project, with a special emphasis on the in-house resource estimate and the metallurgy.

### HIGHLIGHTS

\* Initial leaching tests on argillaceous laterites suggest the Tantalus clay mineralisation is comparable to the ion absorption clays of southern China which provide most of the world's current heavy rare earth supplies, with total recoveries averaging 79%.

\* A preliminary in-house resource estimate of surface or near surface mineralisation for parts of Targets 1, 3 and 4 has been completed in conjunction with SRK Consulting ([www.srkexploration.com](http://www.srkexploration.com)) totalling 55 million tonnes of mineralisation, containing 46,000 tonnes of rare earth oxides ("REO") with an in-ground value of USD\$8.28 billion (US\$180 per kilo average) using Q2 2011 prices.

\* Unlike other REO projects, approximately 20% of the total REO are the most valuable heavy REOs.

\* Near surface high-grade bedrock mineralisation with rare earth bearing carbonates has been discovered in Targets 4 and 5 with the assays revealing a basket value for the contained rare earths of US\$4,219 and US\$4,673 per tonne of ore respectively.

\* The Target 4 and 5 mineralisation also contains significant amounts of scandium, a highly sought after element being used increasingly in fuel cells and high strength aluminium alloys.

Commenting on these results, Ivan Murphy, Executive Director of Tantalus Rare Earths AG said:

"The Tantalus project continues to emerge as one of the largest potential resources of Heavy Rare Earth Oxides outside of China. Only a small proportion of the project area has been explored to date, and not surprisingly, the excellent results we have produced so far is generating considerable interest from Tier 1 financiers and end users."

Wolfgang Hampel, COO of Tantalus Rare Earths AG added:

"I am delighted that we have received confirmation that our REE bearing argillaceous laterites have at least in parts similar characteristics to the clay deposits of Southern China. The massive potential revenue per tonne figures combined with the fact that we have, only explored a small portion of the project area, provides us with confidence that our Tantalus Project will support a very large and extremely profitable mining and processing operation which will supply heavy rare earths for many years. "

## 1. UPDATE ON METALLURGY

### Argillaceous laterites - Ion Adsorption Clays

Initial leaching tests on the Tantalus REE bearing argillaceous laterites have returned very positive results and some of the clays tested are indeed comparable to the so-called ion adsorption clays from Southern China. The overall recovery was 79 %, which is excellent when compared to many other projects. The ion adsorption clays from Southern China - also called "weathered crust elution-deposited rare earth ores" are the World's almost exclusive source for heavy rare earths. The ores are generally low grade and are mined using low-cost, in situ leaching methods.

At the same time TRE's subcontractor is pursuing more testwork on the argillaceous laterites using conventional gravity and magnetic separation techniques. A new set of concentrates has been received and will now be assayed and studied mineralogically.

More REE bearing clay samples are getting sent regularly to TRE's partners and consultants to check their ion absorption capacities.

### New high grade mineralisation from Targets 4 and 5

A first sample from the new high grade REE mineralisation discovered on Target 4 was studied using a scanning electron microscope (SEE). Although the new high grade mineralisation found on Targets 4 and 5 was encountered in different geological settings, the grades and the repartition of the various REE are almost identical. The TREO grade for Target 4 was 1.84% and 1.68% for Target 5. Cerium is particularly low, whereas Nd, Sm, Pr, La, Y, Gd, Eu, Dy and Tb are particularly high, see Table 1. Uranium and thorium grades are exceedingly low.

The mineralogical study has shown that the REE mineralisation is characterized by fine grained, complex REE fluoro-carbonates filling in interstices of a volcanic breccia, see Figure 1 and 2. Surprisingly, the analytical device of the SEE has also shown the presence of noteworthy amounts of scandium. Scandium is closely related to rare earths and often added to them because of the chemical similarities and geological setting where it occurs. Scandium is increasingly used in fuel cells and high strength aluminium alloys. As scandium is not covered by the assay method currently applied (Alschemex code ME-MS81), a certain number is currently getting re-assayed to evaluate the potential for scandium mineralisation. Samples taken in 2008 on Target 1 were assayed for scandium but showed only low grades. As the geological setting of this target is different, scandium could occur in economic quantities.

This new type of mineralisation is interpreted as being a precipitate of REE bearing aqueous solutions derived from the weathering of overlying REE bearing strata (a "REE calcrete"). The lateral extent and thickness of this REE bearing layer is not yet known but is subject to a drilling programme starting later this month. This mineralisation type is most advantageous as ore processing can be done by simple acid leaching methods.

Table 1: REE composition and basket value of two new bedrock mineralisation types found at Target 4 and 5.

For technical reasons the table is only shown in the attached pdf.

Figure 1: Scanning electron microscopic photo of volcanic breccia, the bright parts are REE-Sc-bearing fluoro-carbonates filling interstices between quartz and other mineral grains.

For technical reasons the figure is only shown in the attached pdf.

Figure 2: Scanning electron microscopic photo of globular REE-Sc-bearing fluoro-carbonates (close-up of of Figure 1).

For technical reasons the figure is only shown in the attached pdf.

### Primary mineralisation

Although the REE mineralisation on Target 1 is rather low grade, the Company

believes the ore could be mined economically as the majority of REE bearing minerals is present as acid leachable carbonates in an inert matrix. The Ta, Nb and Zr bearing minerals could probably be concentrated using gravitational methods.

TRE is currently identifying suitable laboratories to carry out testwork on the primary mineralisation.

In the meantime, exploration will now focus on expanding the high-grade resource discovered at Targets 4 and 5.

## 2. IN-HOUSE RESOURCE ESTIMATE:

In conjunction with SRK Consulting, preliminary resource estimates have been calculated for parts of Target 1 (Ampasibitika), Target 3 (Befitina) and Target 4 (Caldera). The resource estimates are preliminary and partial in nature because all three targets are being actively evaluated and the extents of the estimated areas are dictated by the availability of results.

The preliminary resource estimates were calculated using the available pitting, drilling and topographical data. Datamine software was used to create sectional strings and wire-frames that were linked together to form surfaces. These surfaces were then developed into block models, into which grades were estimated.

The preliminary resource estimates have resulted in the figures shown in Table 2. It is critical to note that these figures are estimates and tentative in nature. Their accuracy will improve as more data are obtained and incorporated into revised versions of the estimates.

Table 2: The preliminary resource estimate figures.

For technical reasons the table is only shown in the attached pdf.

Very significantly, the preliminary resource estimates only encompass a small proportion of the targets that are being actively evaluated, and a very small part of the much larger area that is underlain by the Ambohimirahavavy igneous complex (Figure 2).

Furthermore, the thickness of the mineralised zones has yet to be fully realised due to the limitations on the depths to which the pits can be excavated and the lengths of the drill holes.

Figure 2: Work progress until 5 October 2011 and areas for potentially REE bearing argillaceous laterites.

For technical reasons the figure is only shown in the attached pdf.

## 3. WORK PROGRESS

Work is progressing rapidly on 5 of the 6 target zones. The initial field programme for 2011 should be finished before the end of this year. However, outstanding results may dictate a change in strategy on some of the prospects. For a total of 5,452 samples results have been received so far from Alschemex, results for 522 samples are pending and a further 2,502 samples are currently on the way to the laboratory.

Table 3: Work programme for 2011 and progress until 5 October 2011.

For technical reasons the figure is only shown in the attached pdf.

Work progress on Target 1 (Ampasibitika Prospect)

Diamond drilling is almost completed now on Target 1. To-date, 268 diamond drill holes have been completed, totalling 19,615m drilled meters. The remaining 1,300m (19 holes) will be finished before Christmas 2011 using a single drill rig. The other light weight, man portable drill is currently transported to the Caldera Prospect (Target 4).

The Company has received new assay results from ALS Chemex, Canada for 9 drill holes. The new results confirm that the target is covered by a continuous layer of REE-bearing argillaceous laterites that are underlain by multiple mineralised dykes and veins that can be followed over several kilometres strike length.

The drilled widths of the REE-bearing argillaceous layer average 10.24 m which corresponds to a true (vertical) thickness of approximately 9 m. The TREO grades vary between 608 ppm and 1,732 ppm; the ratio of HREO to TREO varies 16 and 22 %, which is consistent with earlier results. Uranium and thorium values continue to be very low.

Each drill hole has intersected between 1 and 5 different mineralised veins. The widths vary between 1 metre and 17 m. The best TREO (Total Rare Earth Oxides) grades attain 0.34 %. Ta, Nb, Zr, Ga and Sn are also enriched. The overall ratio HREO/TREO is 21/79. Uranium and thorium grades are low.

Table 4: Summary table showing the weighted averages for TREO and the percentage

of HREO from 11 drill holes on Target 1.

For technical reasons the table is only shown in the attached pdf.

Work progress on Target 2 (Ambaliha Prospect)

This 8.5 km<sup>2</sup> sized prospect is characterized by a set of three sub-parallel radiometric anomalies that can be followed for over almost 8 km. Outcrop sampling in 2009 has confirmed the presence of primary REE mineralisation hosted by a series of alkaline granites. It is suspected that this primary mineralisation is equally overlain by REE bearing argillaceous laterites.

Out of the initial 260 pits/window sampling holes planned on this prospect, 32 have been finalized as yet; another 10 are currently in progress. The maximum depth of the pits is 10m; the average depth is 5.70m. All pits have been channel sampled; no results have been received to date. At the current speed, all pitting/window sampling should be finished around mid-December 2011.

Work progress on Target 3 (Befitina Prospect)

Earlier work on this prospect, including a reconnaissance soil geochemical survey, trenching and limited pitting has indicated the presence of a continuous REE bearing layer of clays overlaying a series of presumably alkaline rocks. The 15 km<sup>2</sup> sized prospect is subject to an extensive pitting/window sampling programme totalling some 440 sampling points.

Until this week, 259 pits out of 440 pits have been excavated and sampled, another 10 are currently in progress. The completion of the programme is scheduled for early December 2011.

Results recently received for 30 pits underline the potential for REE bearing argillaceous laterites in economic quantities and grades, see Table 5. In more than one third of the pits, pitting ended in mineralisation. Further to that, in many of these pits the grades and the HREO percentage increase considerably with depth. As pitting is limited to a maximum of -10m due to security reasons, diamond drilling will be carried out at a later stage to examine the full extent of the mineralisation.

Table 5: Summary table showing the averages for TREO and the percentage of HREO from 30 pits on Target 3.

For technical reasons the table is only shown in the attached pdf.

Work progress on Target 4 (Caldera Prospect)

Pitting has resumed on the 31 km<sup>2</sup> sized prospect after the completion of 2 major trenches on the new high grade bedrock mineralisation announced earlier. Almost 200 pits out of the 385 pits planned have been finished to date. The remaining pits will be completed by December 2011.

The results received from Alschemex for 25 further pits (see Table 6) underline the economic potential of this huge prospect. In almost 50% of the pits, pitting stopped in mineralisation as either the maximum depth of 10m was reached or a high groundwater level was encountered. Also, in many pits the grades and the percentage of HREO increase considerably with depth. The highest overall grade was 0.25% TREO, the highest percentage of HREO in the argillaceous laterites reached 33 %.

Currently, a new fly camp is installed in the caldera and diamond drilling will commence this month. The diamond drilling programme not only targets the REE bearing argillaceous laterites but also the new type of high grade mineralisation which apparently underlies the clays. The full extent of high grade mineralisation is not yet known.

Table 6: Summary table showing the averages for TREO and the percentage of HREO from 25 pits on Target 4.

For technical reasons the table is only shown in the attached pdf.

Work progress on Target 5 (Ampasibitika South Prospect)

Pitting on this prospect, which is the southern continuity of Target 1, will soon be completed. New assay results from this area are expected later this month. Once pitting is completed here, the teams will move on to the adjacent Target 4 to support the other pitting teams.

#### 4. WORK PROGRAMME - OUTLOOK FOR COMING MONTHS

At the current progress rate, the company plans to publish updated figures on resources and grades every 4 - 8 weeks. By the end of 2011, TRE expects to be able to delineate a low grade resource in the range of 300 to 500 million tonnes.

Field work in the coming months will concentrate on finalizing the pitting/window sampling programme on the various targets. Special emphasis will be made on Target 4, the Caldera, The geomorphology and geology of this target support the development of a very large, deeply weathered deposit of REE bearing argillaceous laterites. The discovery of a leachable high grade mineralisation at shallow depths is a further highlight of this target.

Parallel to the field work, every effort necessary will be undertaken to complete the metallurgical testwork on the various ore types in order to define a NI43-101 compliant resource estimate.

#### 5. EXPLORATION STAFF UPDATE

TRE's local subsidiary Tantalum Rare Earth SARL ("TREM") has rapidly become one of most active mineral exploration companies in Madagascar. As the company focuses more and more on establishing a massive NI43-101 compliant resource, an increase in staff and new fields of activity for the existing staff are planned. In total, TREM has currently 37 persons under contract.

##### Mr. Wolfgang Hampel

The Chief Operating Officer of Tantalus Rare Earths AG and Co-Director of Tantalum Rare Earth SARL will continue overseeing all technical and geological aspects of the project but will emphasize his work on coordinating the company's mineralogical and metallurgical testwork. There are at least three different types of rare earth mineralisation present on the project area: primary vein/skarn hosted, secondary laterite/clay hosted and presumably secondary, high grade mineralisation at shallow depths. Each of these mineralisation types has different mineralogical, petrographical and chemical characteristics and requires different approaches as to produce intermediate REE concentrates.

##### Mr. Montaharison Rakotoandriana

Mr. Rakotoandriana, who is the second Co-Director of Tantalum Rare Earth SARL, will focus on logistical aspects of the project and the relationship with the local administration. With an ever growing number of samples sent to laboratories, consultants and partners worldwide, and more technical equipment imported into the country, the logistics become increasingly important and complex.

##### Dr. Dominique Rakotomanana

Being one of the renowned specialists on the geology of Madagascar, Dr. Rakotomanana will continue organising the exploration programme and being in charge of external relationships on all administrative levels. Further to that, he will train the Malagasy junior geologists in all technical and theoretical aspects.

##### Mr. Chris Barrett

Mr. Chris Barrett will be in charge in developing and structuring the fast growing database and liaise with the TRE's consultants SRK Consulting Ltd. in order to establish a NI43-101 compliant resource estimate. The database is constantly being updated and new resource estimates are expected every 4-8 weeks. Additionally, Chris will carry out field work on the various prospects and train the Malagasy technical staff.

##### Technical Team Madagascar

In order to maximise the field work progress, TREM has hired 20 Malagasy geologists, most of them junior geologists. They are either based in fly camps at the various prospects or in Ambanja where the company's sample preparation laboratory is situated. Further to the geologists, a geophysicist/GIS specialist, an environmentalist and a laboratory manager are employed.

##### Support Team Madagascar

This comprises administrative staff in Antananarivo and Ambanja for logistics and accounting, drivers, laboratory assistants, guards and others.

##### Local Labour Force Madagascar

TREM is one of biggest employers of the region. Depending on the type of field work carried out, TREM employs up to 260 persons from the Ampasindava Peninsula. They are mainly employed for the preparation of drill pads, the moving of drill rigs and pitting. Others are employed at TREM's reforestation programme or as guides, porters and guards. The impact on the local economy is substantial.

##### New Staff

TRE considers hiring more technical expatriate and local staff in the near future. This includes further geologists, mining engineers and others.

##### Notes to Editors

##### About Tantalus Rare Earths ("TRE")

