



Sierra Rutile Limited

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Sierra Rutile Announces Improved Economics for the Sembehun Dry Mine

London, UK, 22 March 2016: Sierra Rutile Limited (AIM: SRX) ("Sierra Rutile") is pleased to announce the results of its pre-feasibility study (the "PFS Study") for the Sembehun Dry Mine which is intended to extend the life and scope of operations at its fully-permitted Sembehun group of deposits. The operation would have the flexibility to operate at either a 500 tonnes per hour (tph) or at a 1,000 tph rate of throughput.

The PFS Study, undertaken by third party DRA Projects (Pty) Ltd. and Sierra Rutile, provides further certainty that the Sembehun Dry Mine is value-enhancing and capital efficient. Compared to the previously released Scoping Study announced on 1 June 2015, the current PFS Study supports reduced levels of capital expenditure, a shortened lead-time and improved economic returns. Furthermore, the PFS Study is in-line with the continued transition of Sierra Rutile to a market-led business model with the flexibility to align production to long-term demand hence focusing the business model on maximising sales profitability.

Highlights

- **Large resource base:** The PFS Study supports economic dry mining of a significant resource base totalling 3.6 million tonnes (Mt) of contained rutile at an average in-situ rutile grade of 0.98%.
 - **Meaningful, flexible production growth:** Sembehun Dry Mine represents another sequential stage in Sierra Rutile's dry mining operations. The 1,000 tph operation contributes on average 71,000 tonnes of rutile per annum over a 21 year mine life. The mine will consist of two, separate 500 tph concentrator plants.
 - **Lower capital intensity:** Upfront estimate of \$72 million for the first 500 tph unit. Total capital for a 1,000 tph operation of \$99 million has reduced by approximately 22% in comparison to the previous Scoping Study estimate. The operation retains flexibility to accelerate ramp-up by constructing two 500 tph units concurrently, gaining further capital efficiencies.
 - **Improved economics^{1,4}:** The PFS Study supports robust economics at consensus pricing with an after-tax IRR of 66% and an after-tax NPV_{10%} of \$224 million for a 1,000 tph operation. This is an improvement over the previous Scoping Study, which generated an after-tax IRR of 33% and an NPV_{10%} of \$152 million.
 - **Low cost of production:** Sembehun Dry Mine as a 1,000 tph operation has an average mining cash cost¹ of \$343/tonne rutile over the life of the mine, comparable to Sierra Rutile's existing mining operations.
 - **Low-risk execution:** Sembehun Dry Mine will have an almost identical design and configuration to Gangama and Lanti Dry Mining operations, enabling Sierra Rutile to leverage its proven experience in constructing dry mining projects on-budget and on-time.
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- **Production flexibility and optionality:** Dependent on market conditions, the PFS Study confirms the Sembehun group of deposits can support a variety of throughput options. The two 500 tph units can be brought online either simultaneously or in stages in order to respond to prevailing market conditions.
- **Next Steps:** Sierra Rutile will now focus on further detailed value engineering, specifically focused on operational flexibility, capital cost reductions and operating cost optimisations.

Commenting on the PFS Study, John Sisay, Sierra Rutile Chief Executive Officer, said:

“The PFS Study for the Sembehun Dry Mine reaffirms the robust pipeline of value-enhancing organic growth options within Sierra Rutile’s existing project portfolio. If commissioned, the Sembehun Dry Mine would be the third dry mining operation constructed at Sierra Rutile. The experience gained from the Lanti and Gangama Dry Mines will be leveraged in the construction of the Sembehun Dry Mine, helping to ensure even greater confidence that the project will be constructed on-time and on-budget. Moreover, the staged approach to development allows us to continually evaluate and optimise the project. As we continue to execute our strategic plan, we will continue to prioritise sensible growth without compromising our balance sheet and sustainable shareholder returns.”

Project Overview

The fully-permitted Sembehun group of deposits, located 45 km north-west of Sierra Rutile's existing operations, represent the largest resource within Sierra Rutile's existing endowment, containing 3.6 Mt of rutile at an average in-situ rutile grade of 0.98%.

The PFS Study is based on a throughput of 1,000 tph sourced from an open pit dry mining operation consisting of two 500 tph concentrator plants, an owner-operated mining fleet, product haulage vehicles and infrastructure.

The projected life of mine is expected to be 21 years, dependent on the size and number of units in the final configuration of the operation. Sembehun Dry Mine is expected to contribute an average of 71,000 tonnes of rutile per annum as a 1,000 tph operation. The first five years of operation of Sembehun Dry Mine will mine ore at an average rutile grade of 1.43%, optimising the large resource base of the Sembehun group of deposits, and will have an average mining cash cost of \$285/tonne, comparable to Sierra Rutile's existing dry mining units.

The PFS Study provides a lower upfront capital cost estimate for a 1,000 tph operation of \$99 million in comparison to the Scoping Study estimate of \$126 million as a result of value-engineering, outsourcing of non-core activities, a reduction in the size of the proposed earth moving fleet, lower costs envisaged for the process plant and lower infrastructure costs. These cost savings have been validated not only through the PFS Study, but also through the construction of Gangama Dry Mine in 2016, which is currently tracking on-time and on-budget. The PFS Study expects Sembehun Dry Mine can be developed in 15 months, with production starting after 12 months. Alternatively, the PFS Study also demonstrates that upfront capital costs can be further staged by utilising a two-phased approach to the construction of the two 500 tph concentrator plants over 15 months. At this time, further engineering work is being done to assess the option of phasing the 1,000 tph capacity in 250 tph increments to provide further increased production flexibility.

Project Summary Metrics

Sembehun Dry Mine Summary		1,000tph	500tph
	Unit		
Avg. annual ore production rate (LOM)	mtpa	7.4	3.8
Avg. grade mined (LOM)	%	1.19%	1.19%
Avg. annual rutile production (LOM)	ktpa	71	36
Avg. mining cash cost (first five years) ²	\$/tonne rutile	285	269
Avg. mining cash cost (LOM) ²	\$/tonne rutile	343	358
Project life	years	21	41
Development capital	US\$m	99	72
Pre-production construction period	months	12	12
Project economics ⁴		1,000tph	500tph
	Unit		
Post-tax NPV (10%)	US\$m	224	130
Post-tax IRR	%	66%	43%
Post-tax payback period	years	1.5	2.0
Sembehun Deposit Mineral Resources ⁵			
	Unit		
Contained			
Rutile	kt	3,602	
Ilmenite	kt	1,006	
Grade			
Rutile	%	0.98%	
Ilmenite	%	0.27%	

1 Scoping study economics restated using current consensus pricing based on broker estimates as at March 2016 compared to consensus pricing in June 2015 (reduced from \$207 to \$152 million).

2 Pre-feasibility study mining cash costs are calculated as all mining costs from extraction, primary processing and delivery costs of HMC to the MSP divided by tonnes of rutile produced

3 Construction period depends on start month.

4 Pre-feasibility study economics evaluated using current consensus pricing based on broker estimates as at March 2016. Excludes fixed costs and maintenance capital expenditure associated with the MSP and overheads. NPV assumes that Sembehun is constructed in 2018 with production coming on line in 2019. Taxes are calculated as 3.5% of revenues.

5 Resources as at 30 September 2015.

Next Steps

Sierra Rutile will continue the value-engineering process to further optimise and reduce risks around Sembehun Dry Mine. The PFS Study reflects Sierra Rutile's broader strategy of low-cost, capital efficient and disciplined growth and reaffirms that Sierra Rutile has the ability to take this strategy and apply it to a sustainable long-life operation.

Sierra Rutile does not have a requirement to commence construction of the Sembehun Dry Mine to maintain its current production profile over the next five years, but retains the optionality to quickly ramp-up production as market demand develops.

ENDS

The mineral resource information in this announcement has been reviewed and approved for release by Mr Mark Button, NHDip, MMRM, Pr.Sci.Nat. who has 25 years' experience in mineral commodities, of which 15 years is specific to mineral resource estimation, and is currently an independent contractor providing consulting services to Sierra Rutile Limited. Mr Button has sufficient experience in relation to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Button has consented to inclusion of this mineral resource information in the form and context in which it appears.

A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

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About Sierra Rutile Limited

Sierra Rutile produces titanium feedstock industrial minerals (primarily rutile, with some associated ilmenite), as well as smaller quantities of zircon. Sierra Rutile's mines, located in the south west of Sierra Leone, are based on one of the largest natural rutile deposits in the world, with a JORC-Compliant Mineral Resource for measured, indicated and inferred resources for the Sierra Rutile mine of over 895 million tonnes (as at 30 September 2014).

www.sierra-rutile.com