ASX Release

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Tin Metallurgy Enhances Heemskirk Project

Initial metallurgical test work on recent drill core samples from upper Queen Hill mineralisation, one of three deposits within the Tasmanian Heemskirk Tin Project is now complete. The results indicate that metallurgical responses from upper Queen Hill are comparable with those from existing sulphide-rich tin mines and support advancing the project towards scoping study and development.

Highlights

- Good liberation characteristics down to finer fractions and cassiterite tin mineralogy underpin the 70% recovery target.
- Mineral characterization shows that it is possible to produce a saleable concentrate grading 50% tin at recovery of 70%.
- Pre-concentration can enhance the process by rejecting 15% of the non-economic minerals early in the process with negligible loss of tin.

Next Steps

- Completion of a JORC resource estimate – end of January 2011
- Resumption of drilling – March quarter 2011
- Scoping study – June quarter 2011

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About Stellar:

Stellar Resources (SRZ) is focusing on the development of its tin and iron ore projects and advancement of uranium and base metal exploration properties. The company holds a portfolio of tenements located in Tasmania, South Australia and New South Wales that have excellent development potential. Key projects include: Heemskirk Tin located near Zeehan in Tasmania, Tarcoola Iron Ore located in central South Australia and Uranium located in the Pirie Basin north of Cowell and at Warrior west of Tarcoola in South Australia. The company aims to create shareholder value by identifying and developing mature exploration properties.

Introduction

The Heemskirk Tin Project is located north of Zeehan on Tasmania's west coast. This location is ideal for mining given that the area is well serviced by power, water, transport infrastructure and mining services. Stellar holds a 60% interest in the project with joint venture partner Gippsland Limited and can increase its holding to 70% by completing an acceptable feasibility study.

Purpose of Metallurgical Test Work

1) Provide a comprehensive test of tin separation and recovery for upper Queen Hill mineralisation using a conventional processing route adapted for modern refinements.
2) Determine whether there are any impediments to producing a saleable concentrate at an acceptable level of recovery.
3) Show that historical work did not complete all process options due to premature ending of the test program into the metallurgical performance of upper Queen Hill mineralisation, as a result of the tin market collapse, although the work did provide valuable pointers to the current work.
4) Identify opportunities to improve on the results achieved to date.

The test work was supervised by Devlure Pty Ltd, an accredited expert on tin metallurgy, and conducted by Burnie Research Laboratory which regularly tests tin metallurgy from projects within Australia and overseas.

Sampling

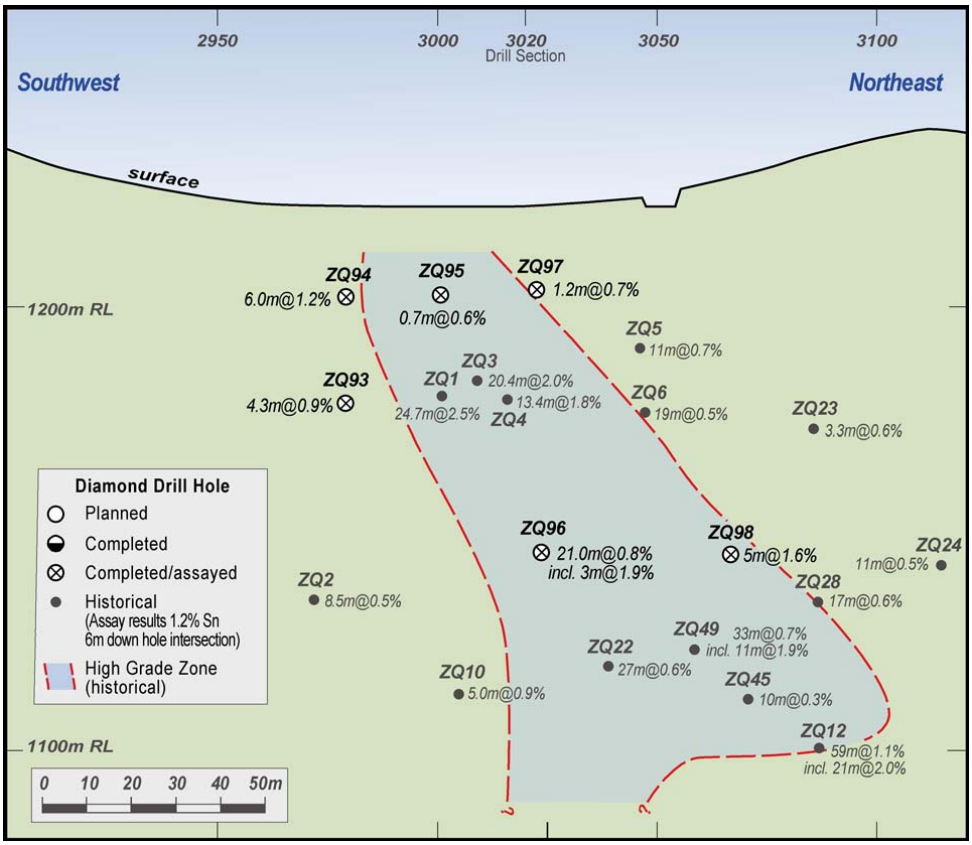

Figure 1. Schematic Long-Section Showing Mineralised Drill Hole Pierce Points and High Grade Zone

Samples were collected from 2010 drilling which focused on the upper level of the Queen Hill deposit. Specifically, ore grade intersections from drill holes ZQ93, ZQ94, ZQ95 and ZQ97 (Composite 1) were aggregated to provide a near surface sample (30m-50m from the surface) while a second sample was prepared by aggregating deeper intersections (110m from the surface) from drill holes ZQ96 and ZQ98 (Composite 2)(see Figure 1). The sample sizes tested are relatively small and require a cautious approach to interpreting results.

Process

The testing process involved crushing and grinding of samples to 212 micron followed by sampling for mineralogical characterisation and estimation of cassiterite liberation. Initial bench scale separation by heavy media was followed by sulphide flotation, gravity separation of the coarsest cassiterite from oxides followed by recovery of finer cassiterite by flotation. Concentrates and tails were characterised by microscopy. The process is a conventional ore characterisation approach for sulphide rich tin ores.

Results

- Initial ore characterisation showed that both samples have similar cassiterite skarn mineralogy – cassiterite occurs as discrete grains and in association with iron sulphide and iron oxide minerals with a high level of separation theoretically possible.

- Importantly, acid soluble tin content was found to be negligible in both samples, backing up the results of earlier assaying, and confirming that tin mineralogy should provide no impediment to the economic production of a saleable concentrate.

- Pre-concentration using heavy media separation was shown to be effective in rejecting 15% of the non-economic minerals with negligible loss of tin. There are significant advantages in pre-concentrating the ore, including the potential to mine lower grade material without loss of capacity in the downstream process plant.

- Liberation characteristics of cassiterite are very good down to finer fractions. This is an important observation as flotation reagents have significantly improved since the historical test work was completed and now allow recovery of finer cassiterite (down to 7 microns).

- Mineralogical assessments of tin grade versus recovery shows that it is theoretically possible to produce a concentrate containing 50% tin at recovery of 70% (see table 1). This target is similar to other lode ore tin mines and greatly exceeds the results from the historical test work.

Table 1. Queen Hill Theoretical Concentrate Grade and Recovery

Composite 1		Composite 2	
Recovery %	Grade %	Recovery %	Grade %
64.5	56.5	64.7	57.1
67.1	54.2	70.6	52.6
70.9	49.9	72.5	50.8
75.2	45.4	74.9	47.7
82.7	35.9	81.5	38.4

Source: AMMTEC for Burnie Research Laboratory

Discussion of Results

Historically, upper Queen Hill mineralisation was found to be metallurgically more challenging than other mineralisation in the Heemskirk project. This conclusion appears to have been drawn after incomplete testing, by different practitioners more than 25 years ago and under the influence of a corporate preference for a then unconventional fuming smelting process. The imposition of tin quotas in 1984 brought the project to a premature end well before other metallurgical avenues were investigated.

The current test work reflects for the first time a consistent approach to conventional tin metallurgy. The test work has produced results that are sufficiently encouraging to advance the project towards scoping and development. In particular, the theoretical recovery of 70% for concentrate grading 50% tin compares equally with other sulphide rich tin ores. The fact that there are no mineralogical impediments to achieving this outcome combined with the availability of process refinements that remain to be tested imply that an even better outcome can be targeted for in the future.

The metallurgical results reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr R Goodman (Member of the Australasian Institute of Mining and Metallurgy) who is a Consultant of the Company. Mr Goodman has sufficient experience relevant to the style of mineralisation and type of deposits being considered to qualify as a Competent Person as defined by the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2004 Edition). Mr Goodman consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. It should be noted that the abovementioned results are preliminary.

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