



# Heemskirk Tin Project

Highest grade undeveloped ASX-listed tin project

ITRI China International Tin Forum, Shanghai

May 2015

ASX: SRZ

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

# Corporate overview



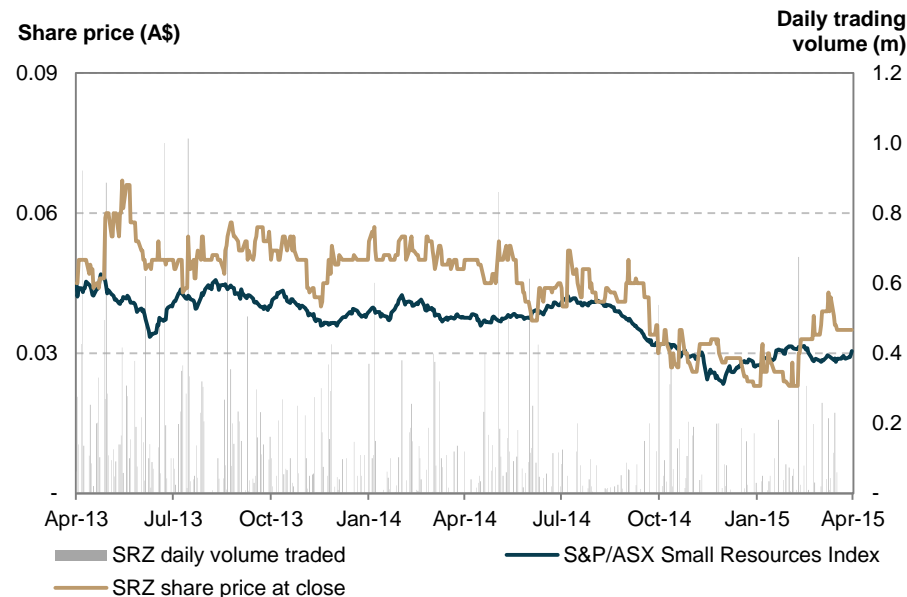
## 100% owner of the highest grade undeveloped ASX-listed tin project

### Company overview

- 100% owner of Heemskirk Tin Project, 150km south of Burnie, Tasmania
- Stand-out high grade resource (1.1% Sn) with vision to be Australia's 2nd largest tin producer
- Metallurgical optimisation announced in March 2015 increased PFS valuation to A\$82.3m
- Currently refining and optimising the PFS, mine plan and further exploration programs

### Financial information

Share price (16-Apr-15)	A\$0.035
Number of shares	300.2m
<b>Market capitalisation</b>	<b>A\$10.5m</b>
Cash (31-Dec-14)	A\$3.0m
Debt (31-Dec-14)	No debt
<b>Enterprise value</b>	<b>A\$7.5m</b>
<i>42.5m unlisted options (exercise prices A\$0.06 to A\$0.12, expiring 26-Feb-17 to 20-Nov-19)</i>	



### Strong institutional ownership

Capetown S.A.	20.8%
Bunenberg Family	14.9%
Resource Capital Funds	12.0%
Directors & Management	4.2%
<b>Top 20 Shareholders</b>	<b>70.2%</b>

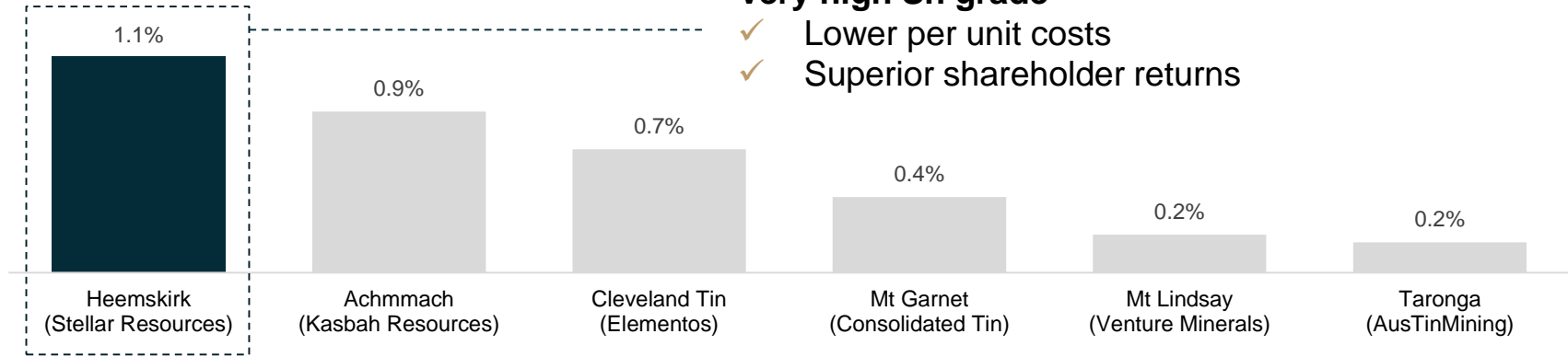
# Investment case

- ✓ **Premier position** in Australia's most productive tin field
- ✓ 100% owned Heemskirk Tin Project is the **highest grade undeveloped tin resource on the ASX**
- ✓ Heemskirk is an **unencumbered project with no offtake agreements** yet in place; thus allowing for the development of new strategic relationships
- ✓ Metallurgical optimisation work shows Heemskirk has several **parallels to the early production from Metals X's Renison Bell**
- ✓ **Premium projects with high grades** will continue to attract investment, despite the challenging market conditions

# ASX junior tin developers

Heemskirk is the premier pre-production tin opportunity on the ASX

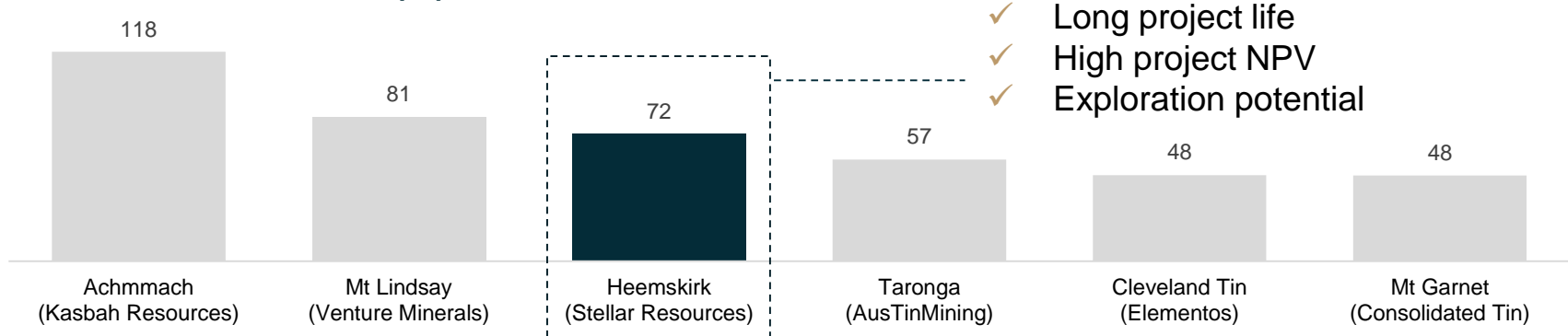
## Resource grade (% Sn)



### Very high Sn grade

- ✓ Lower per unit costs
- ✓ Superior shareholder returns

## Contained tin resource (kt)



### Sizeable resource

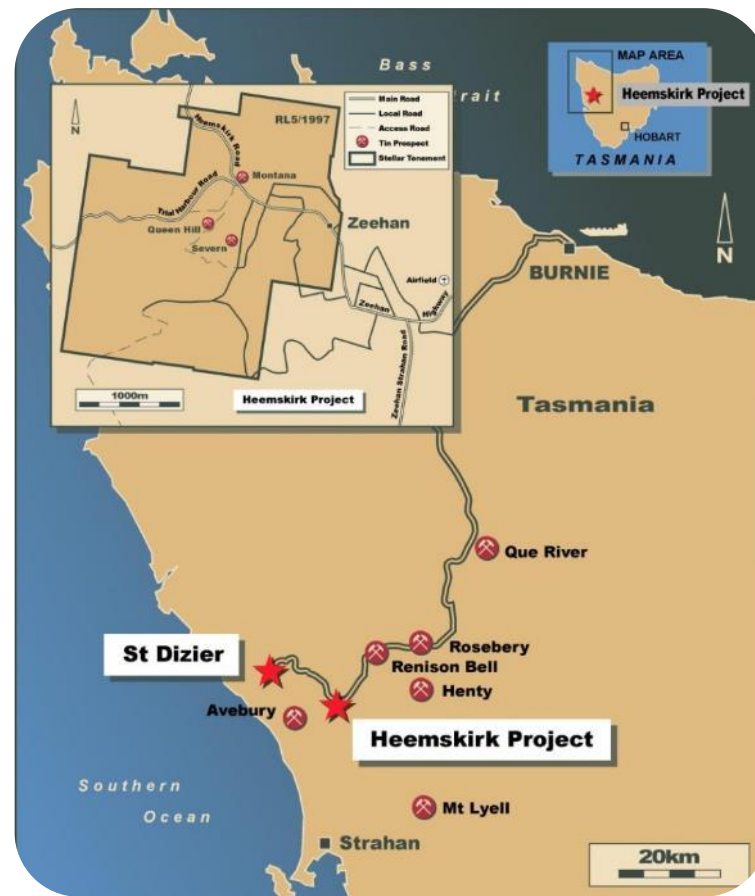
- ✓ Long project life
- ✓ High project NPV
- ✓ Exploration potential

Source: Company filings

# Favourable project location

## North-west Tasmania is a world-class tin jurisdiction

- ✓ Significant mining district
  - Many historical and current operating mines across various commodities
- ✓ Supportive local community and skilled workforce
  - Experienced workforce available with other mines in the region winding down
- ✓ Established road and rail to port at Burnie, water readily available and power infrastructure in place
- ✓ Low political risk
  - Tasmanian government supportive of Heemskirk
- ✓ Low environmental risk
  - Issues faced by others in the region unlikely to be encountered



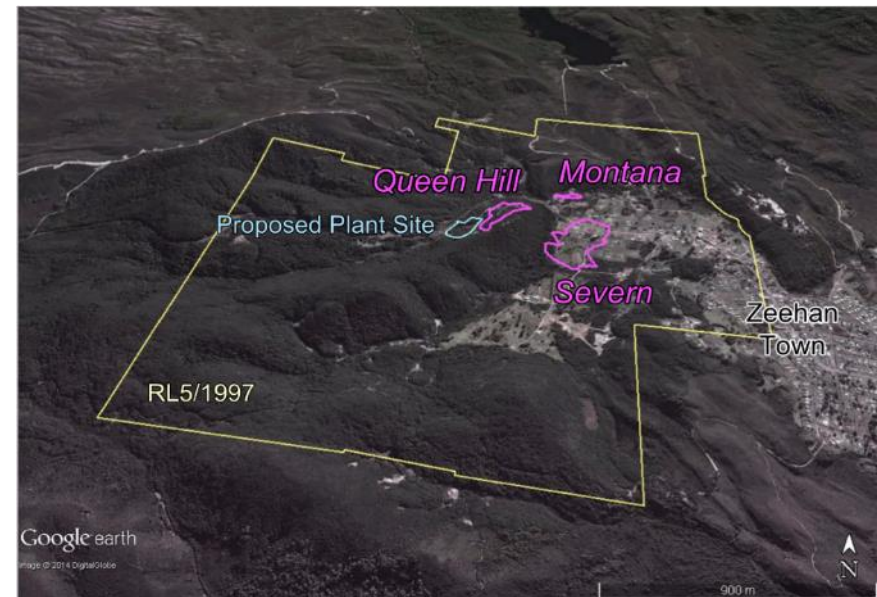
# Flagship Heemskirk tin project



## Australia's highest grade undeveloped tin deposit with excellent expansion potential

- Renison-style deposit located along the tin-bearing Heemskirk Granite trend
- Renison Bell (Metals X / Yunnan Tin) located 18km to northeast
- Comprised of three 100% owned tin deposits
- The most recent resource estimate of **6.3Mt at 1.14% tin** makes Heemskirk one of the largest and highest grade tin deposits in Australia
- Proposed surface development and underground portal on west side of Queen Hill

## Heemskirk location and layout



# Heemskirk 2013 PFS

## Positive results from the 2013 PFS confirmed project economics – optimisation is well underway

- Pre-feasibility study completed in July 2013 for an underground mine producing 600ktpa at 1.06% Sn

### PFS overview

**Pre-production capital cost:** A\$127m

**Minimum life:** 6.75 years (excluding St Dizier)

**Mine gate cash costs:** A\$15,988/t  
(US\$14,389/t) tin concentrate

- Comparable to Renison Bell

**NPV** (base case @ 8%): A\$61m

**Average concentrate grade:** 48%

**Exchange rate:** US\$0.90/A\$

**Tin price:** US\$25,500/t



### PFS optimisation

Capital cost to be finalised following DFS

**Project open at depth** which lends itself to mine life extensions

**Mining costs continue to decrease** – buyer’s market

- ✓ Metallurgical study increased **NPV to A\$82.3M**
- ✓ Metallurgical optimisation determined final concentrate grade of 45%
- ✓ Valuation **increases to A\$136M** using US\$0.78/A\$

Consensus estimates predict **tin price increase** from current levels

# Recent updates

## Operational and corporate achievements in 2014 have set the perfect platform for Stellar to move towards DFS in 2015

- 
- January 2014**    □ Capetown S.A. subscribes to **A\$2.6M placement**

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  - February 2014**    □ **A\$1.2M underwritten entitlement offer** announced

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  - March 2014**    □ **Indicated 1.2Mt @ 0.70% Sn partly open pittable resource at St Dizier** announced
    - **4 hole drill program commenced at Queen Hill**

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  - June 2014**    □ Ongoing drill program confirmed **high grade near surface mineralisation at St Dizier @ 0.9% Sn**

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  - August 2014**    □ Queen Hill **tin mineralisation extended by 150m down plunge**

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  - February 2015**    □ Environmental Protection Authority guidelines received
    - **Exploration licence granted to the south of Heemskirk**

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  - March 2015**    □ Metallurgy optimisation upgrades PFS metrics
    - **Severn tin recovery increased by 7.4% and average tin recovery increased by 4.5%**
    - **Annual tin in concentrate production increased by 4.5%**
    - **PFS NPV increased by 34.2% to A\$82.3M**

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  - April 2015**    □ Geological review flags new northwest dipping structures presenting **un-tapped upside to the Heemskirk resource**
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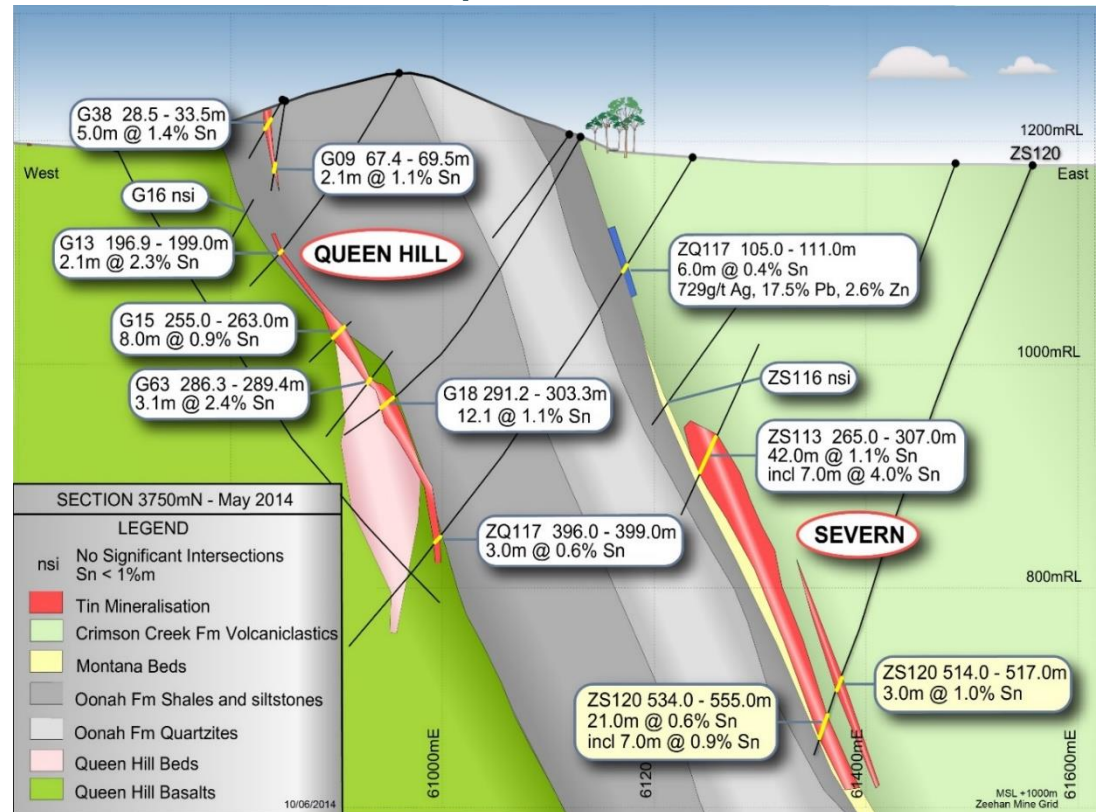


# Deposits open at depth

All deposits open at depth, poorly explored below 300 metres from surface and unexplored below 500 metres

- Rock competency contrast provides channel-way for mineralising fluids
- Major lithological boundaries provide northeast orientation to mineralisation
- However, at drill-hole scale, mineralisation occurs in a range of rock types with many hanging-wall positions
- This implies that structure and paragenesis also provide important vectors for mineralisation

## Queen Hill and Severn deposits



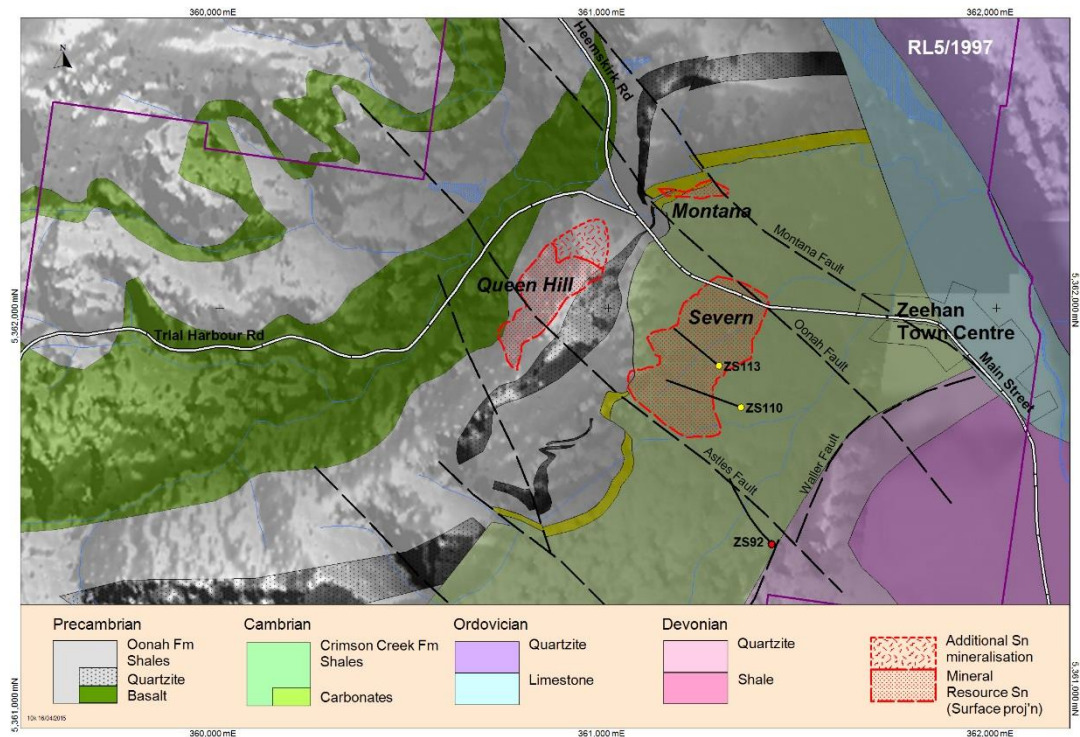
# Encouraging structural corridors



## Northwest trending structural corridors prepared geology for mineralising events

- Previously viewed northeast trend of lithology as most important structural direction
- Northwest structures now equally important – divide geology into blocks that also parallel granite orientation
- Faults active before, during, and after mineralising events
- Very encouraged by potential for more “blind” deposits like Severn within these corridors

### Structural corridors

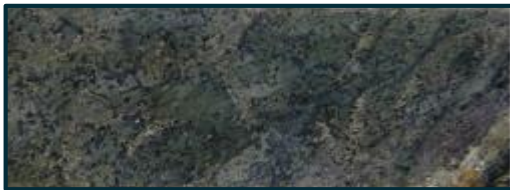


# High grade tin intersections

Geological review has uncovered a number of additional high grade tin areas within structures and dilation zones

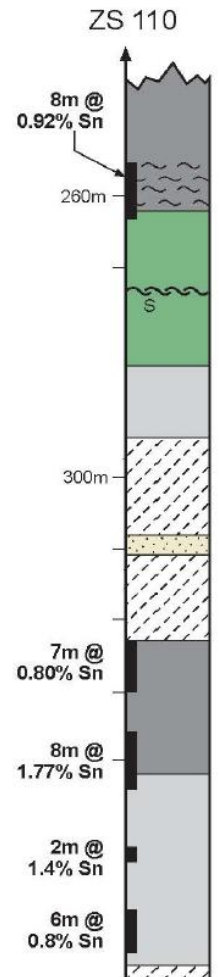
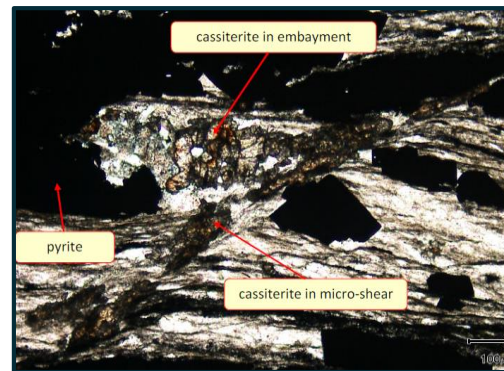
## Dilation zones

(includes 2m @ 1.4% Sn)



## Structures

(includes 8m @ 1.8% Sn)



# Metallurgical optimisation results



**Materially enhanced Heemskirk economics through gains in tin recovery, reduced losses in the sulphide float and increased gravity recovery**

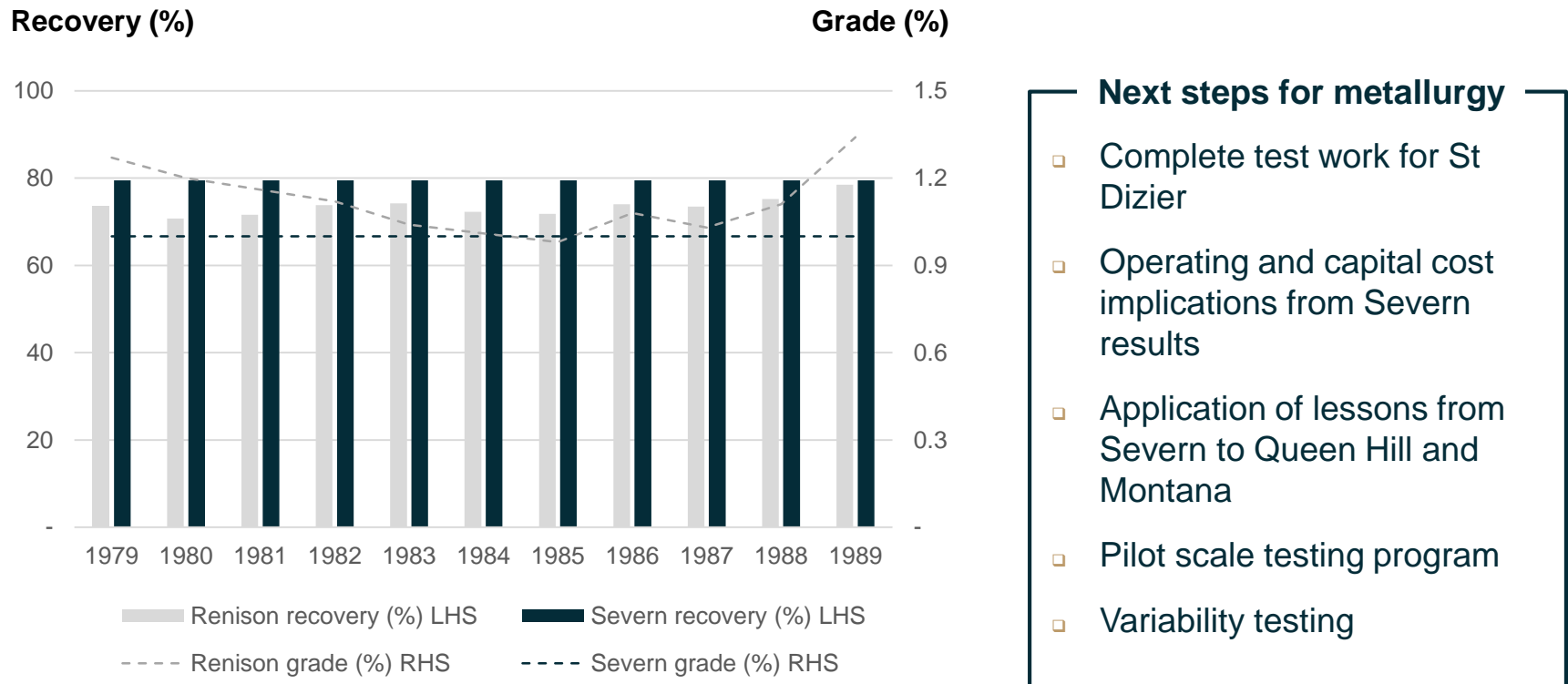
Process product and tail		Assumed PFS performance	Severn optimisation program outcome	Change from PFS performance
<b>Ore grade</b>	% Sn	1.06	1.00	+0.06
<b>1. Ore feed (product)</b>	% Sn	100	100	0.0
<b>2. HMS floats (tail)</b>	% Sn	-1.5	0	+1.5
<b>3. Final sulfide conc (tail)</b>	% Sn	-10.1	-2.6	+7.5
<b>Sn recovery to gravity circuit Feed (product)</b>	% Sn	88.4	97.4	+9.0
<b>4. Gravity conc (product)</b>	% Sn	63.9	69.1	+5.2
<b>5. Gravity tail</b>	% Sn	-2.6	-3.8	-1.2
<b>6. Slime tail</b>	% Sn	-1.3	-3.7	-2.4
<b>7. Tin flotation conc (product)</b>	% Sn	8.5	10.4	+1.9
<b>8. Tin flotation tail</b>	% Sn	-12.1	-10.2	+1.9
<b>9. Overall recovery (product)</b>	% Sn	72.4	79.5	+7.1
<b>10. Overall loss (tail)</b>	% Sn	-27.6	-20.4	+7.2
<b>Final tin concentrate grade</b>	% Sn	50.8	45.0	+5.8

Source: WorleyParsons

# Severn is comparable with Renison



**Severn recovery of 79.5% compares well with neighbour Renison Bell which achieved average recovery of 73.6% at similar head grade in the 1980s**



Source: Annual reports

# Heemskirk is 100% unencumbered



**Heemskirk is a premier tin investment opportunity with high grades, 100% ownership and located in a supportive mining jurisdiction**

- ✓ Heemskirk is a 100% owned, unencumbered project
  - ✓ There are no off-take arrangements in place
    - PFS production rate of 600ktpa @ 1.06% Sn
  - ✓ Safe, mining-friendly jurisdiction
  - ✓ Falling A\$ greatly improves project economics
  - ✓ Mine closures and limited drilling activity in Tasmania has decreased operational costs
- Very limited opportunities for investors to secure tin off-take
  - Heemskirk production will be highly sought after
- Example investments by traders**

  - **Traxys** invested A\$1m into Kasbah in 2010
  - **Glencore** invested A\$161m into Aurelia Metals through a placement at project facility in 2013
  - **Taimetco International** advanced a A\$1.5m secured loan to MGT Resources in 2015

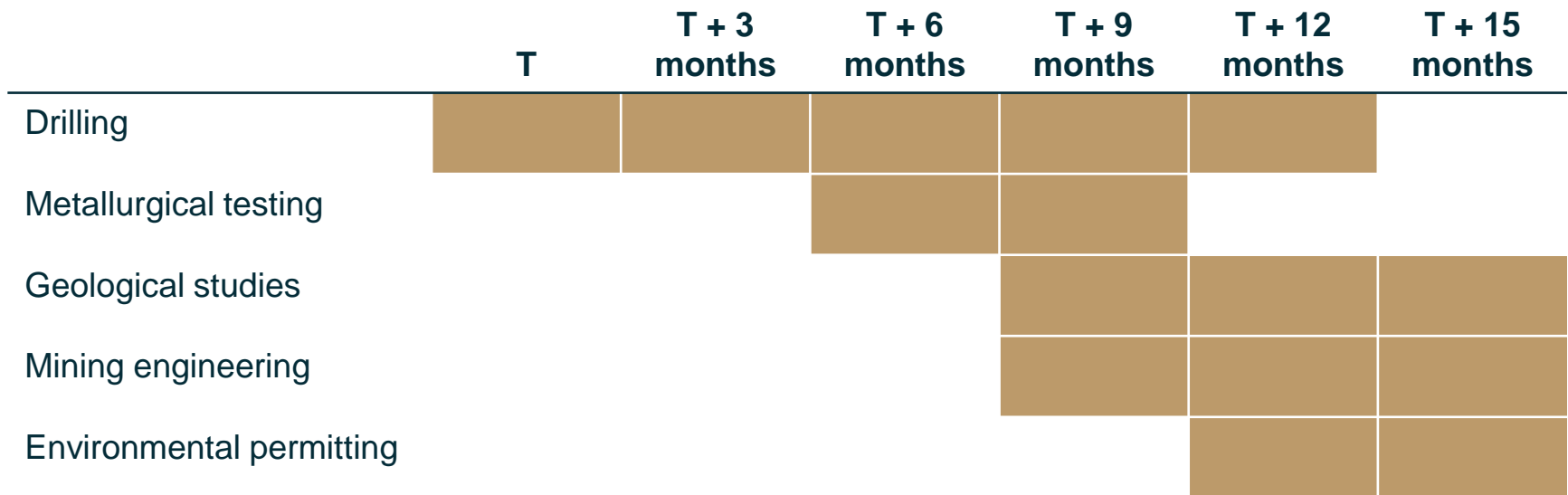
# Heemskirk DFS



**Stellar is poised to embark on a DFS for the Heemskirk project in 2015 with PFS optimisation currently well underway**

- DFS to build upon the previously completed PFS and optimisation studies
- Mining expense deflation expected to reduce the expenditure required for the DFS

## DFS timeline from commencement



# Appendix

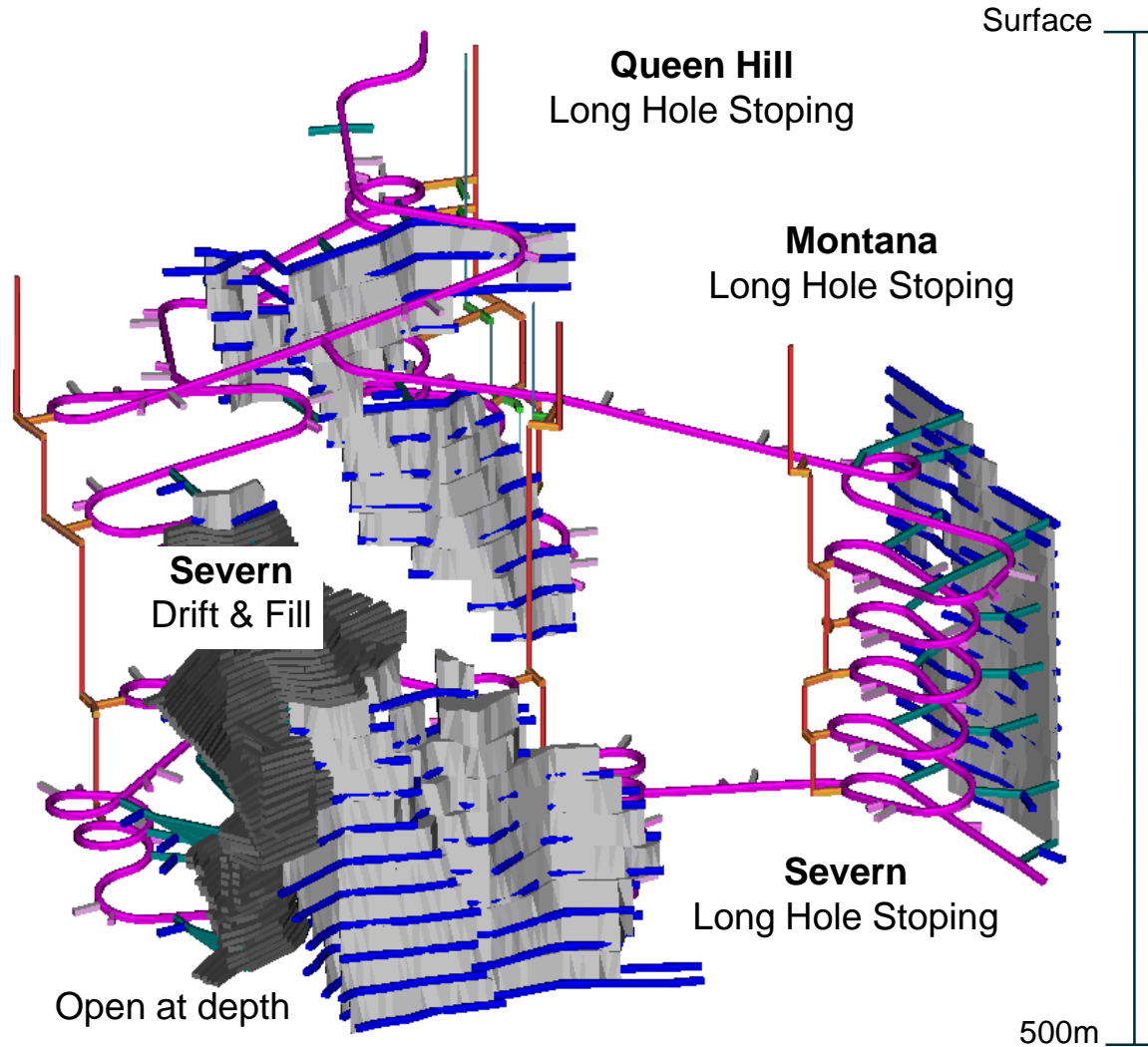
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Heemskirk PFS mine plan

Board of Directors



# Heemskirk 2013 PFS mine plan



# Board of Directors



## Experienced and multi-disciplinary Board with strong global connections



**Phil Harman**  
***Non-Executive Chairman***

**Geophysicist**

- Over 30 years experience in BHP Billiton minerals exploration
- Past and present Director of several ASX listed companies



**Miguel Lopez de Letona**  
***Non-Executive Director***

**Management Consultant**

- Experience as a management consultant and banker with leading financial institutions
- Based in Belgium and advises on investment in the mining and oil and gas sectors



**Peter Blight**  
***Managing Director***

**Geologist**

- 30 years experience in exploration, mining and finance sectors
- Previously worked for UBS, UC Rusal and Rio Tinto



**Christina Kemp**  
***Company Secretary***

**Accountant**

- Over 30 years experience as an accountant and senior financial manager
- Has experience in the resources, manufacturing, retail and utility industries



**Dr Markus Elsasser**  
***Non-Executive Director***

**Finance**

- Based in Germany, provides advice to a number of European based investors
- Has extensive experience as a Managing Director in the chemical and food industries



**Thomas Whiting**  
***Non-Executive Director***

**Geophysicist**

- Former manager of BHP Billiton exploration
- Chairman of Deep Exploration Technologies Cooperative Research Centre

# Disclaimer



## **Forward Looking Statement**

This presentation was prepared by Stellar Resources Limited ( the “company”). It should not be considered as an offer or invitation to subscribe for or purchase any securities in the company or as an offer or invitation with respect to those securities. It may contain a number of forward-looking statements. Known and unknown risks and uncertainties, and factors outside of Stellar’s control, may cause the actual results, performance and achievements of Stellar to differ materially from those expressed or implied in this presentation. To the maximum extent permitted by law and stock exchange listing rules, Stellar does not warrant the accuracy, currency or completeness of the information in this presentation, nor the future performance of Stellar, and will not be responsible for any loss or damage arising from the use of the information.

## **Competent Persons Statement – Heemskirk and St Dizier Mineral Resources**

The information in this report that relates to Heemskirk Tin Mineral Resources was last reported on 24<sup>th</sup> July 2013 in an ASX release titled “Pre-feasibility Study Advances Heemskirk Tin”. The information was prepared in accordance with the 2004 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’ by Tim Callaghan of Resource and Exploration Geology. The information in this report that relates to the St Dizier Mineral Resource was announced on 12 March 2014 in an ASX release titled “Heemskirk Tin Project: New Open Pittable Resource at St Dizier”. The information was prepared in accordance with the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’ (JORC Code) by Tim Callaghan of Resource and Exploration Geology. Tim Callaghan is a Member of The Australasian Institute of Mining and Metallurgy (“AusIMM”), has a minimum of five years experience in the estimation and assessment and evaluation of Mineral Resources of this style and is the Competent Person as defined in the JORC Code. This report accurately summarises and fairly reports his estimations and he has consented to the resource report in the form and context in which it appears.

## **Competent Persons Statement – Exploration**

The drill and exploration results reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr R.K. Hazeldene who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Hazeldene 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 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mr Hazeldene consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

An aerial photograph of a town nestled in a valley. The town features a mix of residential and commercial buildings, including a prominent large wooden structure. The surrounding landscape is lush with green trees and rolling hills. In the background, several mountain peaks are visible under a clear blue sky with a few scattered clouds.

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