

# KING ISLAND SCHEELITE LIMITED

Investor Update  
September 2011

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# King Island Scheelite



## Company

King Island Scheelite Limited	(ASX:KIS)
Shares	81.8M shares on issue \$0.20/share price (31/08/11) \$16.4M market capitalisation
Board	<ul style="list-style-type: none"> <li>• Tony Haggarty Chairman (9%)</li> <li>• Robin Morritt Director (16%)</li> <li>• Andy Plummer Director (4%)</li> <li>• Mr Li Li Director (5%) HNC</li> <li>• Ian Morgan Company Secretary</li> </ul>
Executive	<ul style="list-style-type: none"> <li>• Simon Bird (Chief Executive Officer)</li> <li>• Alvin Johns (Chief Metallurgist)</li> <li>• Sue Jolliffe (Project Accountant)</li> </ul>
Project Team	<ul style="list-style-type: none"> <li>• Tim Callaghan (Geology)</li> <li>• Alan Fudge (Mining) <i>former King Island mine manager</i></li> <li>• Neville Wiggs &amp; Rob Hill (Infrastructure &amp; Project Coordinating)</li> <li>• GR Engineering (Engineering – Plant)</li> <li>• Nick Moony (Metallurgy)</li> </ul>

Board and Management team with substantial project development, exploration and mine management experience.



# King Island Scheelite



## Dolphin Tungsten Project

<b>Ownership</b>	100% owned by KIS
<b>Location</b>	King Island, Tasmania, Australia
<b>History</b>	<ul style="list-style-type: none"> <li>Operated as an open pit between 1917 and 1975, then as an underground until 1990.</li> <li>Gravity and flotation processes produced high grade WO<sub>3</sub> concentrates.</li> <li>Closed then site rehabilitated in 1990 due to low tungsten prices.</li> <li>Asset acquired from Rio Tinto in 2005 and feasibility study conducted by KIS.</li> <li>KIS entered into a 50/50 JV with Hunan Nonferrous Metals ('HNC') in 2008.</li> <li>JV terminated in December 2010 with KIS regaining 100% of the project.</li> <li>HNC forgave KIS debt, in exchange for a 2% royalty on future gross revenue, capped at \$3.9m.</li> </ul>
<b>Current Project</b>	<p>Establish a processing facility for ore and tailings based on flotation</p> <p>Re-treat tailings to produce <b>1,300 tonnes of contained tungsten per annum (2 years)</b></p> <p>Re-open former underground mines to produce <b>3,600 tonnes of contained tungsten per annum (10 years)</b></p>
<b>Resource</b>	<p>4.76 Mt @ 1.30% WO<sub>3</sub> (Dolphin Underground)</p> <p>1.65 Mt @ 0.96% WO<sub>3</sub> (Bold Head Underground)</p> <p>2.7 Mt @ 0.17% WO<sub>3</sub> (Tailings)</p>
<b>Reserve</b>	<p>2.69 Mt @ 1.04% WO<sub>3</sub> (Dolphin Underground)</p> <p>0.61 Mt @ 0.76% WO<sub>3</sub> (Bold Head Underground)</p>
<b>Dolphin South Exploration Potential</b>	<ul style="list-style-type: none"> <li>Swan extended mineralisation</li> <li>Decline extended mineralisation</li> </ul>

*Resource and Reserve details are consistent with previous announcements in accordance with JORC Code 2004.*



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# Tungsten



Turbine blades contain up to 10% tungsten. (Siemens AG, Germany).



Cemented carbide coated drills improve productivity (Mitsubishi Materials Cooperation & Hitachi Tool Engineering Ltd).

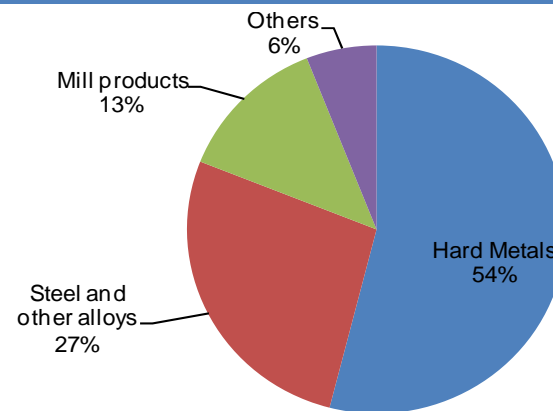
## Properties

- Highest melting point & lowest vapour pressure of all metals.
- Highest tensile strength at high temperatures.
- Tungsten carbide products are the hardest of all metals.
- Among the heaviest of all metals.
- Brilliant sheen, is scratch and corrosion resistant and conducts electricity well.

## Applications

- Cutting tools.
- Mining / oil / gas drilling equipment.
- Nuclear reactors.
- Specialty chemicals.

## The main global uses of tungsten



Source: World Mineral Statistics Database, British Geological Survey



# Market



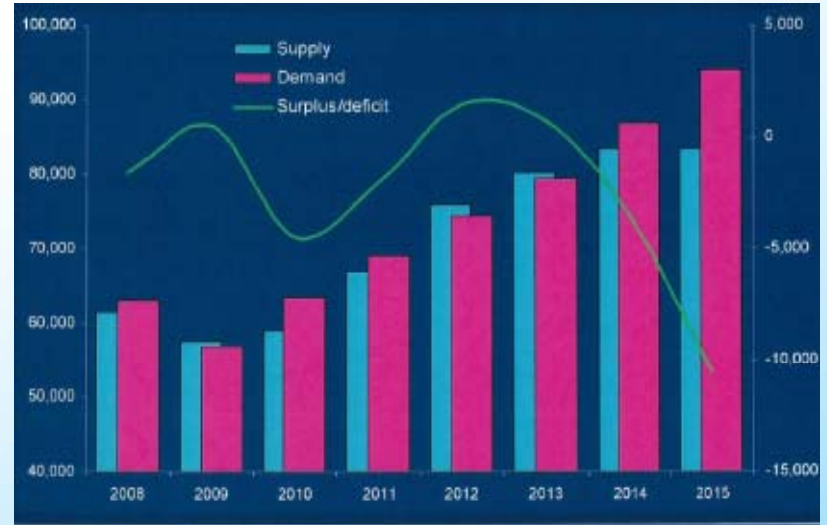
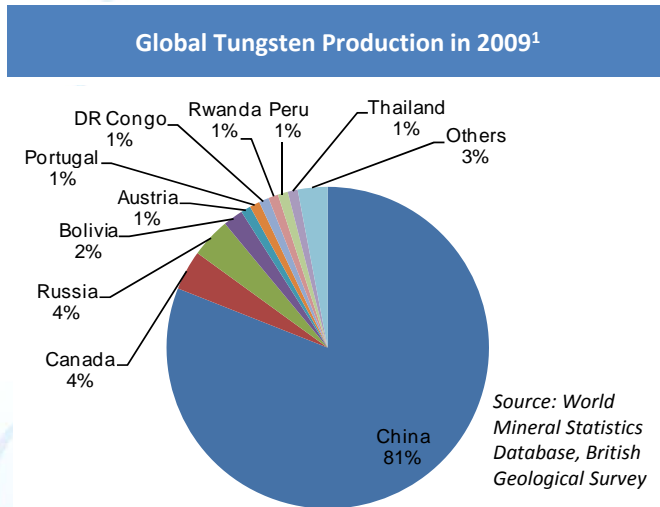
China is the dominant global supplier and restricts exports of this strategic metal.

## Key Supply Issues<sup>1</sup>

- Primary tungsten production in 2010 estimated at 69,600t.
- Recycling can make up 30% of total supply.
- China produces 86% but restricts exports to processed  $WO_3$  only.
- Non-Chinese production recovering from oversupply in the 1980s.
- USA, Russian and Japanese stockpiles have been depleted.
- Tungsten declared a US “conflict metal” in 2010.

## Key Drivers of Demand<sup>1</sup>

- Primarily driven by industrial output.
- 58% of consumption relates to cemented carbides.
- China expected to account for 37% of world consumption in 2010.
- World reliance on Chinese supply.
- Few substitutes and increasing numbers of tungsten applications.
- Industrial output has accelerated post Global Financial Crisis.



1. Refer to: <http://www.bgs.ac.uk/downloads/start.cfm?id=1981>



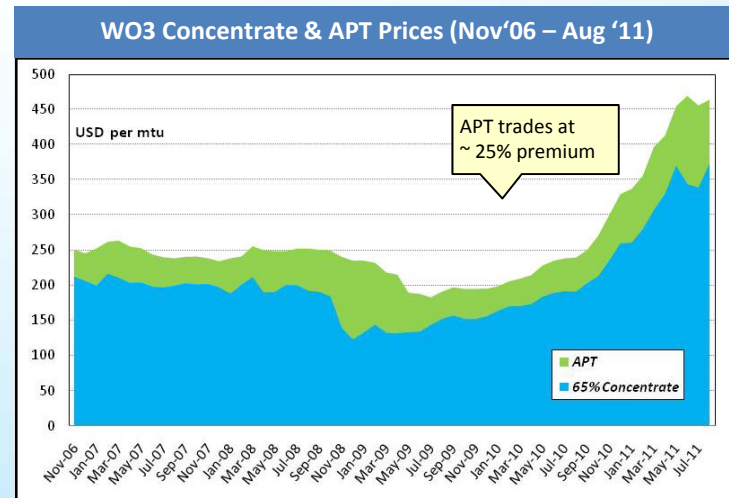
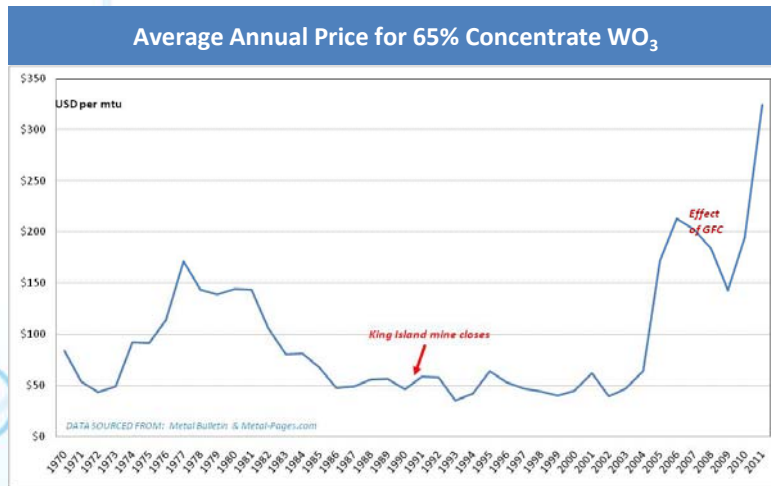
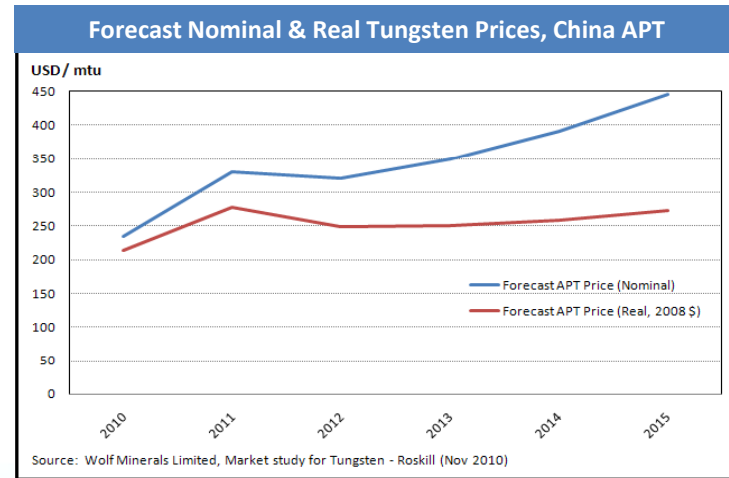
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# Prices



- Total consumption of tungsten metal forecast to grow from 71,000t in 2010 to 132,000t in 2020.
- Non – Chinese APT producers currently source 80% of their concentrate from China.
- Tungsten APT prices increased 95% in 12mths to Aug 2011.
- APT trades at a premium to 65% WO<sub>3</sub> concentrate.

(mtu is equivalent to 100Kg)



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# Dolphin – Former Mine



Former mine operated as an open pit until 1975, then as an underground operation up to 1990.

Gravity and flotation processes produced high grade  $WO_3$  concentrates.

Closed due to low tungsten prices.



The mine created significant employment, a new harbour and enjoyed strong local support.

Site has since been fully rehabilitated.

Strong local support to restart mining operations.

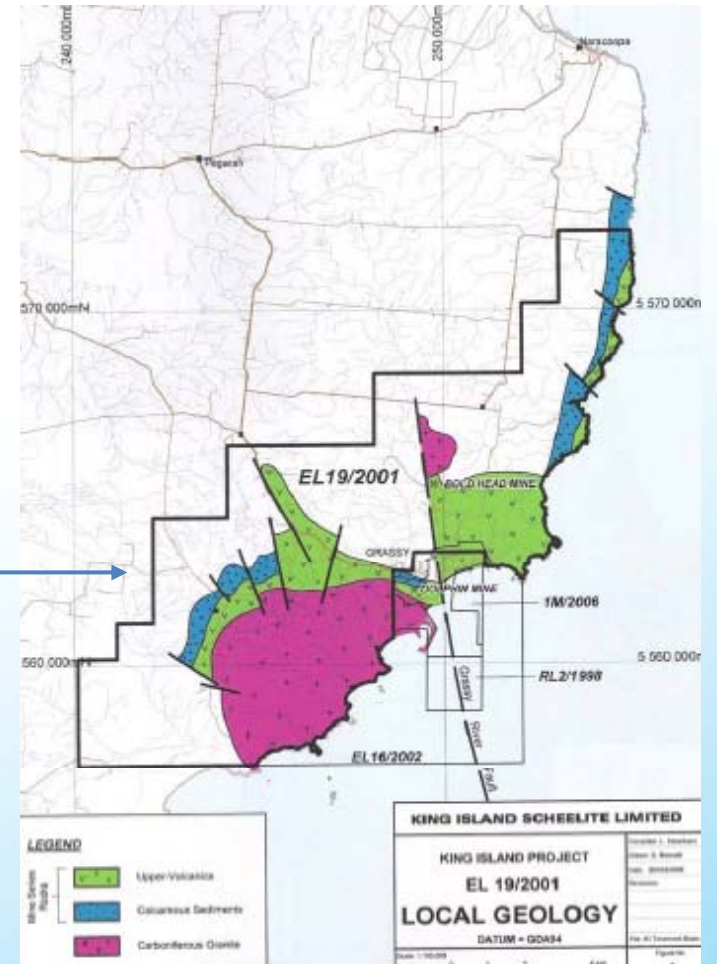




# Dolphin Project



- The project is located on King Island, off the coast of Tasmania.
- Tenements are 100% owned by KIS and in good standing.
- Development approvals being upgraded to reflect new plan.
- Access to existing infrastructure: port, water, camp, roads etc.



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# Project Overview



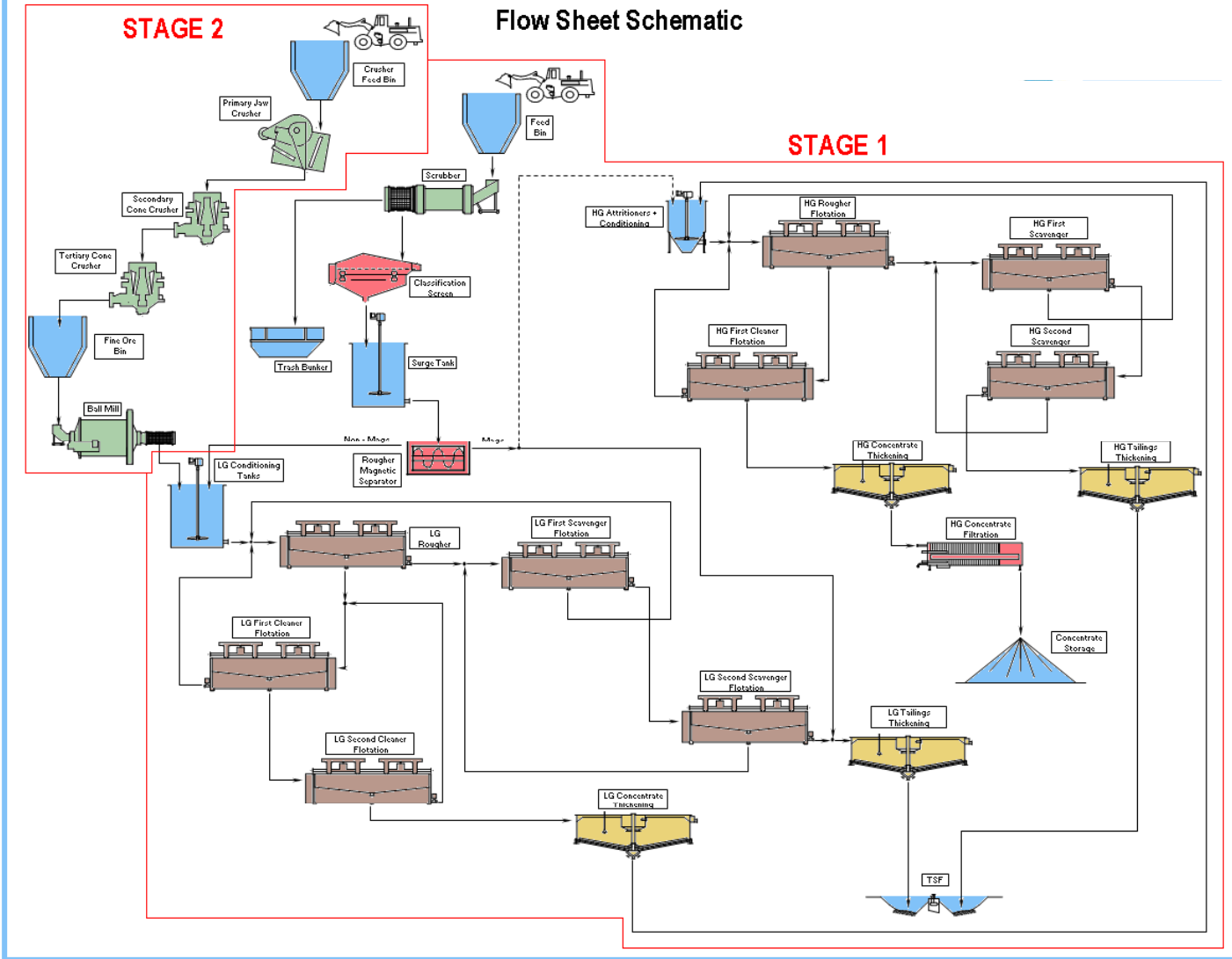
	Mine			Mill			Process Description
	Tonnes	Grade	WO <sub>3</sub> Tonnes	Recovery	Concentrate Grade	Production WO <sub>3</sub> Tonnes	
<b>Tailings</b>	2.7Mt * (Resource)	0.17% *	4,590t	55%	65%	2,057t	<ul style="list-style-type: none"> <li>• Recover tailings through dry mining at 1,360,000tpa.</li> <li>• Construct (back-end) section of processing facility.</li> <li>• Use pre-concentration and flotation to recover WO<sub>3</sub>.</li> <li>• Some confirmatory test work still required.</li> <li>• <b>Production from 2012 at 1,300tpa</b> metal contained.</li> </ul>
<b>Bold Head</b>	0.6Mt * (Reserve)	0.72%*	4,250t	91%	65%	4,212t	<ul style="list-style-type: none"> <li>• Dewater former mines and rehabilitate declines.</li> <li>• Engage contractor to operate underground mines producing 350,000tpa.</li> </ul>
<b>Dolphin</b>	2.68Mt * (Reserve)	1.04%*	28,060t	91%	65%	25,566t	<ul style="list-style-type: none"> <li>• Post-pillar stoping with paste fill.</li> <li>• Construct front end of processing plant.</li> <li>• Use whole-ore-flotation to recover WO<sub>3</sub>.</li> <li>• Recovery based on extensive flotation test work.</li> <li>• <b>Production from 2014 at 3,600tpa</b> metal contained.</li> </ul>
<b>Total</b>			<b>36,900t</b>			<b>31,835t</b>	



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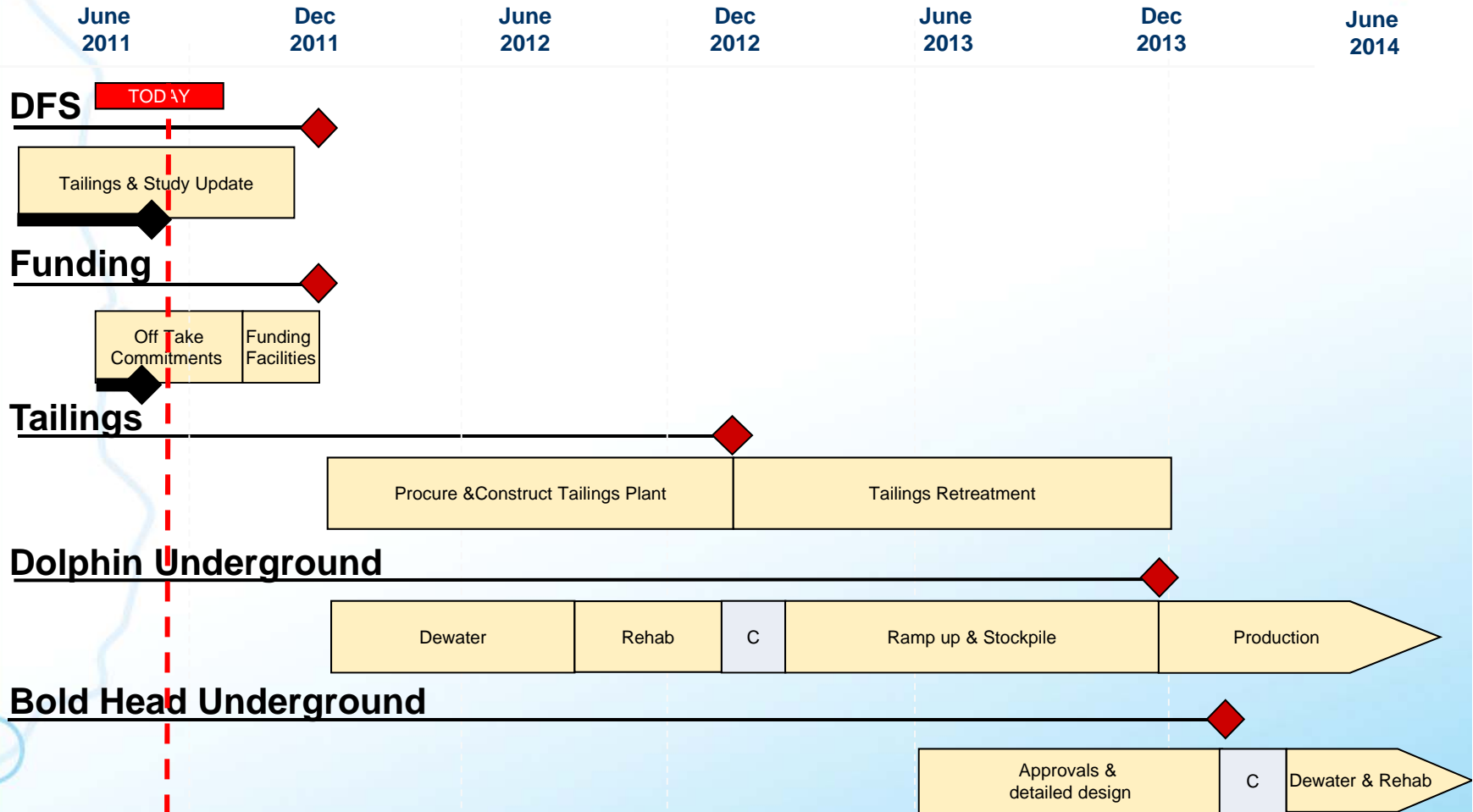
### Treatment Plant Flow Sheet Schematic



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# Dolphin development plan

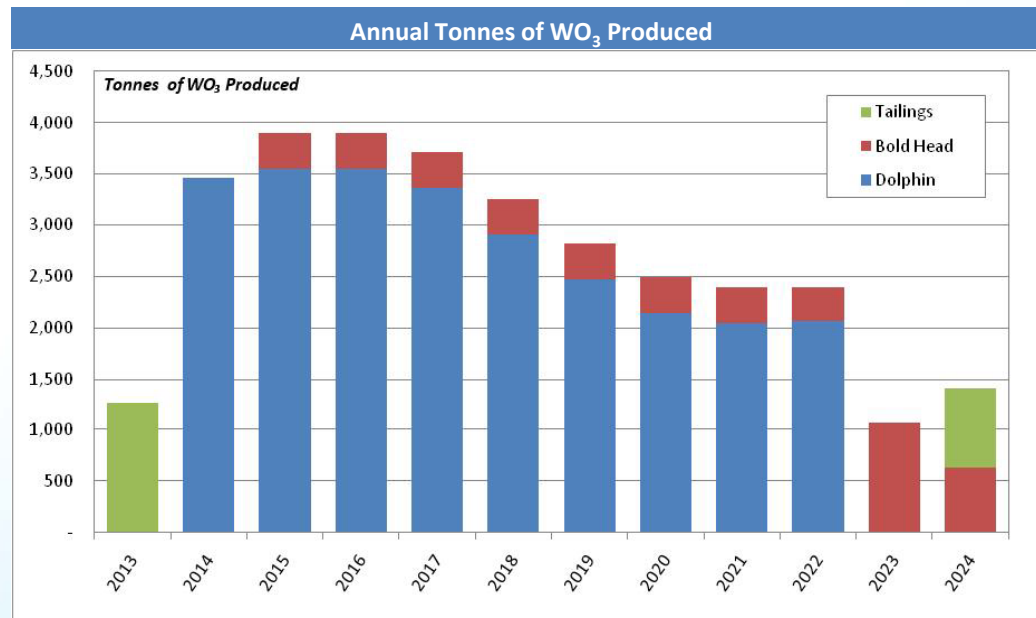
- ◆ Current status
- ◆ Target
- C Contingency



# Major supplier to global tungsten producers



- Will account for 5% of current global primary production.
- To become largest producing mine outside China.
- Production chart below includes additional tonnes from revised reserve estimate.
- 12 year mine life before any exploration success.



# Significant value and upside



## Base Project

	Measure	NPV
Total revenue	\$M	860
Price (at Sept 2011 – USD 377)	US\$/Mtu	270
Foreign exchange rate	AUD:USD	1.00
Project Capital	\$M	112
Operating cost of underground production	US\$/Mtu	<120

*Note the above are estimates only as feasibility study currently being updated*

## Upside

### Dolphin South Exploration

Independent geologist reports indicate potential for substantial additional tonnes down-plunge (no drilling since 1980's).

> \$40 million free cashflow for every additional year of mine life

### APT Plant

Potential value uplift of 25% on  $WO_3$  if sold as APT.

> \$40 margin/ mtu of  $WO_3$  with outlay of \$20-25 million for APT plant





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