

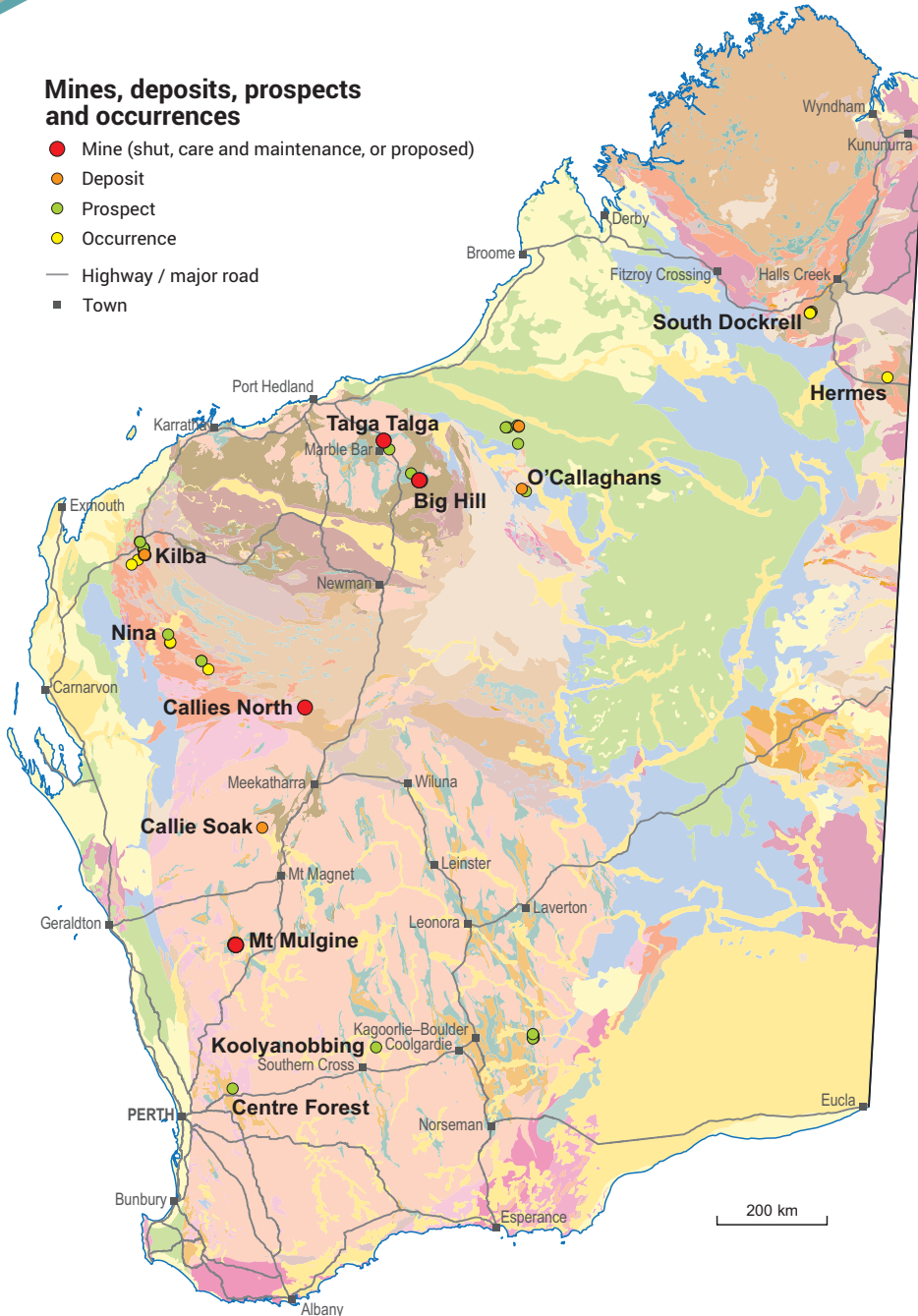
# TUNGSTEN

## INVESTMENT OPPORTUNITIES

WORLD-CLASS RESOURCE PROVINCE | SECURE INVESTMENT LOCATION  
WORLD-LEADING GEOSCIENTIFIC DATA | GLOBAL MINING SERVICES INDUSTRY

### Mines, deposits, prospects and occurrences

- Mine (shut, care and maintenance, or proposed)
- Deposit
- Prospect
- Occurrence
- Highway / major road
- Town



### Western Australia has tungsten resources of over 570 kt of contained tungsten trioxide ( $\text{WO}_3$ )

- Tungsten Mining NL is developing four tungsten trioxide projects while Newcrest's O'Callaghans skarn deposit remains one of the largest deposits in Australia
- The Mt Mulgine project recently completed a pre-feasibility study for the Mulgine Hill and Mulgine Trench deposits
- Antipa Minerals has an estimated tungsten (W) resource from the Calibre deposit, within the Citadel Project, also associated with copper, gold and silver
- The most common mineral forms are wolframite and scheelite associated with skarn and vein hydrothermal and pegmatitic mineralization styles
- Total historic production of tungsten in Western Australia reached 482 t tungsten trioxide from scheelite and wolframite concentrate



Government of Western Australia  
Department of Mines, Industry Regulation and Safety

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## Tungsten resources ranked by contained WO<sub>3</sub> (t)

Resources estimated according to JORC 2012

Project	Status	Owner	Commodity	Resources (Mt)	Av. grade WO <sub>3</sub> (%)	Contained WO <sub>3</sub> (t)	Resource date
Mt Mulgine	Pre-feasibility	Tungsten Mining	W-Mo	259.3	0.11	291 440	04/05/2020
O'Callaghans	Pre-feasibility	Newcrest Mining	Cu-W-Mo-Zn-Pb	78.0	0.33	257 100	31/12/2017
Big Hill	Scoping	Tungsten Mining	W	38.5	0.09	35 540	22/06/2016
Kilba	Exploration	Tungsten Mining	W	7.2	0.19	13 899	30/01/2015
Callie Soak <sup>a</sup>	Exploration	Tungsten Mining	W	0.2	0.33	614	08/03/1971

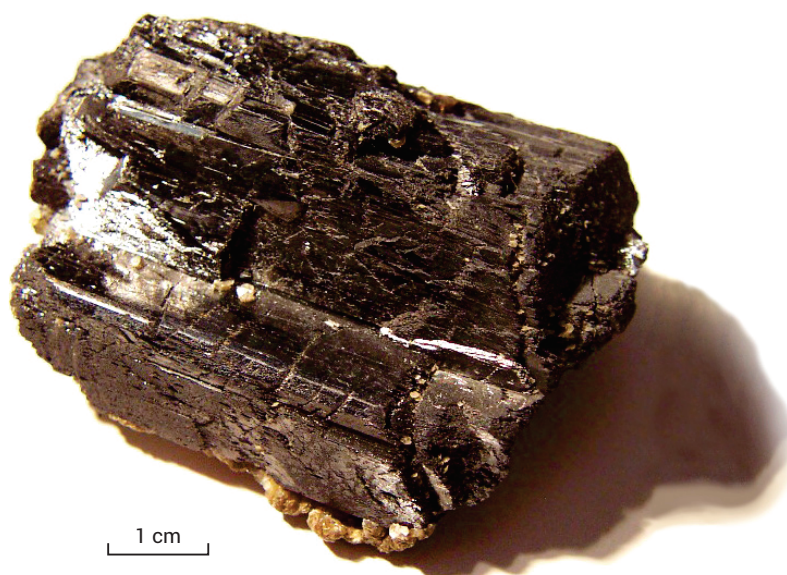
Resource estimates have been rounded

<sup>a</sup> Resource estimates are not JORC 2012 compliant

Abbreviations	<b>W</b> Tungsten	<b>Mo</b> Molybdenum	<b>Cu</b> Copper	<b>Zn</b> Zinc
	<b>Pb</b> Lead	<b>Au</b> Gold	<b>Ag</b> Silver	

## Properties and uses

- Chemically resistant to most acids and is inert to oxygen at room temperature
- Tungsten is used in alloys and steel production due to its hardness and resistance to corrosion
- Also associated with lead, gold and silver occurrences, tungsten is both a critical mineral and a battery metal. Generally occurs in Western Australia in the minerals scheelite, wolframite
- Other uses include the aerospace industry, lamp filaments and drill bits



Wolframite (Fe,Mn)WO<sub>4</sub> from Portugal  
(Source: Rob Lavinsky, iRocks.com – CC-BY-SA-3.0)

### For more information



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[www.dmirs.wa.gov.au/gswa](http://www.dmirs.wa.gov.au/gswa)

**MINEDEX**

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