

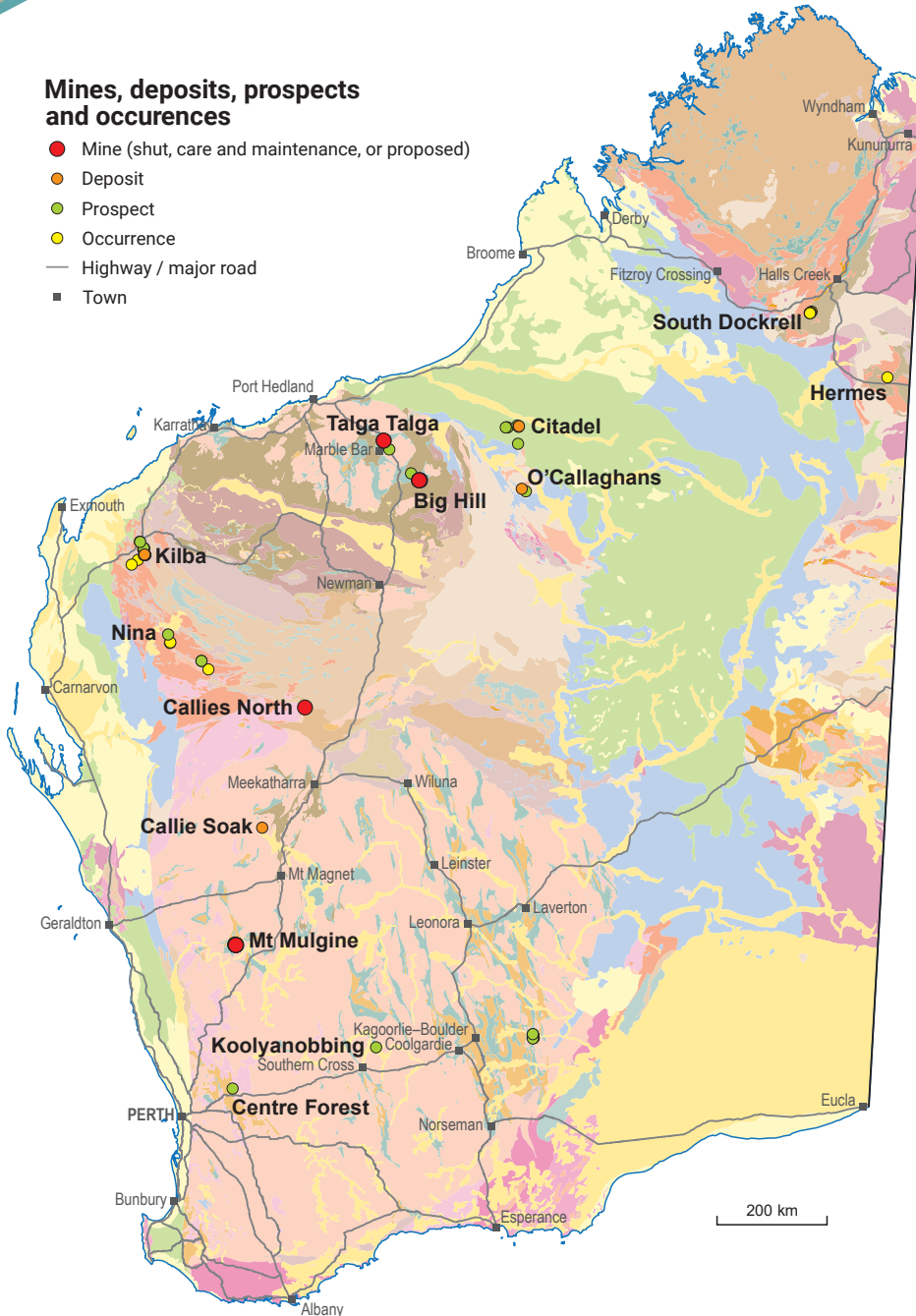
TUNGSTEN

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 (WO_3)

- Tungsten Mining NL is developing four tungsten trioxide projects while Newcrest's O'Callaghan's deposit remains one of the largest deposits in Australia
- The most common mineral forms are wolframite and scheelite associated with skarn and vein hydrothermal and pegmatitic mineralization styles
- Total production of tungsten in Western Australia is 482 t tungsten trioxide from scheelite and wolframite concentrate
- Antipa Minerals has an estimated tungsten (W) resource from the Calibre deposit, within the Citadel Project, associated with copper, gold and silver
- Uses for tungsten include 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 battery metal



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

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Tungsten resources ranked by contained WO₃ (t)

Resources estimated according to JORC 2012

Project	Status	Owner	Commodity	Resources (Mt)	Av. grade WO ₃ (%)	Contained WO ₃ (t)	Resource date
Mt Mulgine	Scoping	Tungsten Mining	W-Mo	254.1	0.11	287 650	04/05/2020
O'Callaghans	Feasibility	Newcrest Mining	Cu-W-Mo-Zn-Pb	78.0	0.33	257 100	31/12/2017
Big Hill	Scoping	Tungsten Mining	W	11.5	0.15	16 810	22/06/2016
Kilba	Exploration	Tungsten Mining	W	5.0	0.24	12 142	30/01/2015
Callie Soak [^]	Exploration	Tungsten Mining	W	0.2	0.33	614	08/03/1971

[^] Resource estimates are not JORC 2012 compliant
Resource estimates have been rounded

Tungsten resources ranked by contained W (t)

Resources estimated according to JORC 2012

Project	Status	Owner	Commodity	Resources (Mt)	Av. grade W (%)	Contained W (t)	Resource date
Citadel	Exploration	Antipa Minerals Ltd, Rio Tinto Ltd	Au-Ag-Cu-W	47.7	0.02	10 494	17/11/2017

Resource estimates have been rounded



Wolframite (Fe,Mn)WO₄ from Portugal
(Source: Rob Lavinsky, iRocks.com – CC-BY-SA-3.0)

For more information



Geological Survey of
Western Australia

www.dmirs.wa.gov.au/gswa

MINEDEX

www.dmirs.wa.gov.au/minedex

GeoVIEW.WA

www.dmirs.wa.gov.au/geoview

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