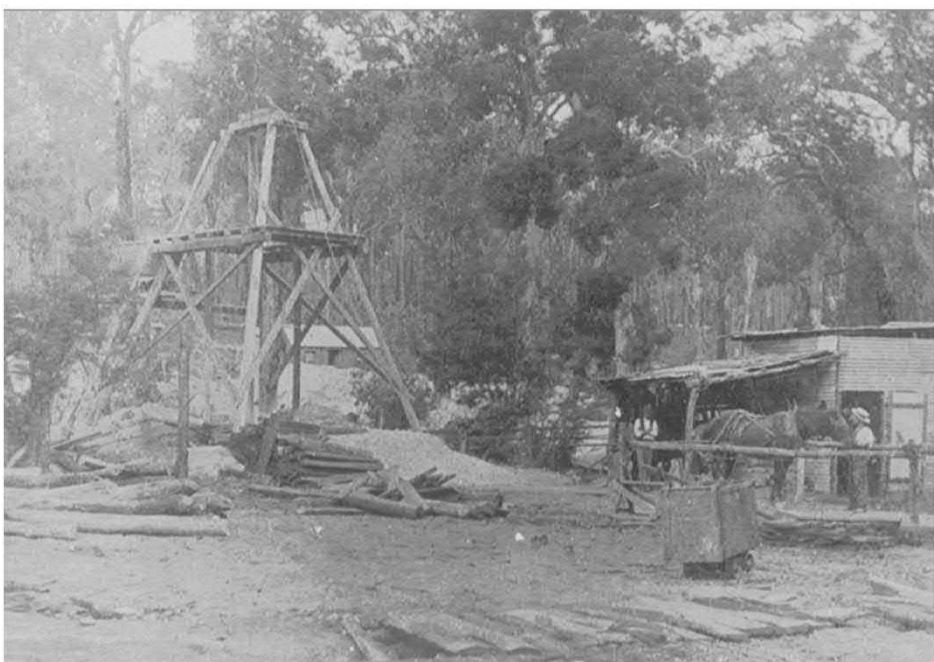
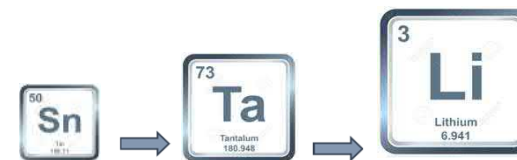


# Mining in Greenbushes from Tin to Lithium



*Presented by: Pat Scallan OAM  
Chairperson – Greenbushes Discovery Centre*

# Mining in Greenbushes from Tin to Lithium



1886

- Tin Discovered

1888

- Tin First Mined by Bunbury Tin Mining Co

1900-14

- Tin Mining - peak local population reaches 3,000

1914-30

- Gradual decline in tin production

1935-43

- Vultan Mines - sluicing of weathered tin oxides

1945-56

- Modern earth moving equipment introduced. Tin dredging.

1964

- Greenbushes Tin NL

1969

- Open Cut Mining (soft rock)

1983-84

- 30,000tpa Lithium minerals concentrator commissioned

1980

- Major tantalite and lithium deposit

1990

- Gwalia Consolidated was formed

1987

- Lithium Australia was formed

1997

- Sons of Gwalia was formed

1994

- 10,000 tpa Lithium carbonate plant constructed

1992

- Tantalum hard rock processing plant commissioned

2004-07

- Administration & Restructure Tantalum Business

2001-2002

- Tantalum Underground Decline and Plant Expansion

2009

- Talison Lithium Pty Ltd formed

2007

- Talison Minerals Pty Ltd formed

2012

- Lithium CGP1 plant constructed

2019

- Lithium CGP2 plant constructed

2022

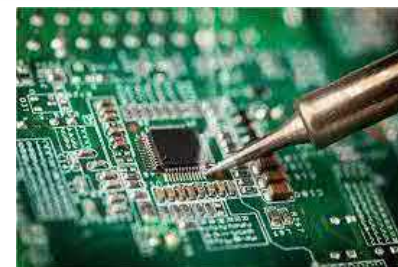
- Lithium Tailings retreatment plant constructed

2023

- Lithium CGP3 plant construction commenced

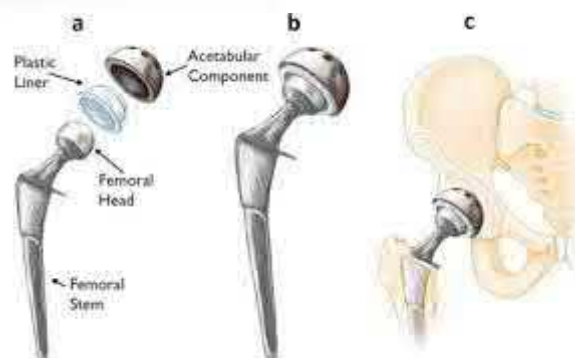
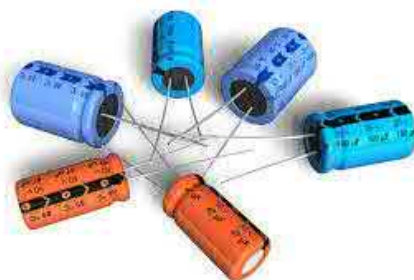
# Mining in Greenbushes from Tin to Lithium

1886 – discovered  
1888 – Mining  
1994 – by-product





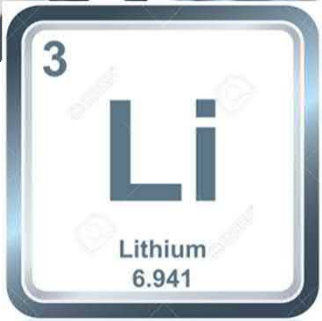
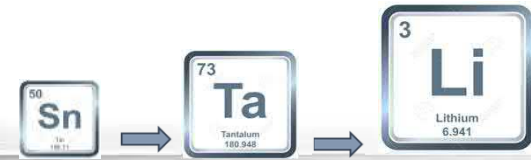
# Mining in Greenbushes from Tin to Lithium



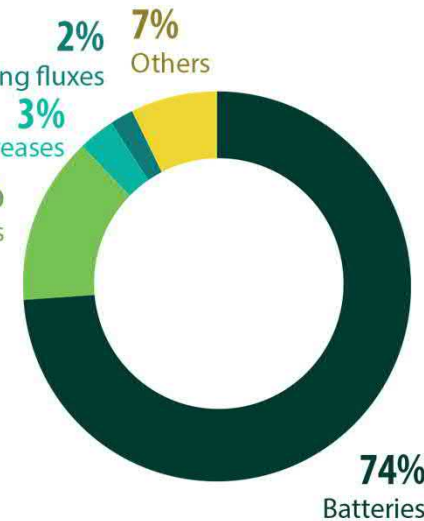
- 1893 – Discovered
- 1912 – 3 tonnes
- 1944 – Mining (alluvial)
- 1980 – Underground
- 1984/85 – 30ktpa Concentrator
- 1992 – 800ktpa Concentrator
- 2000 – 4mtpa Concentrator
- 2004 – By-product



# Mining in Greenbushes from Tin to Lithium



2% Continuous casting fluxes  
3% Lubricating greases  
14% Ceramics and glass



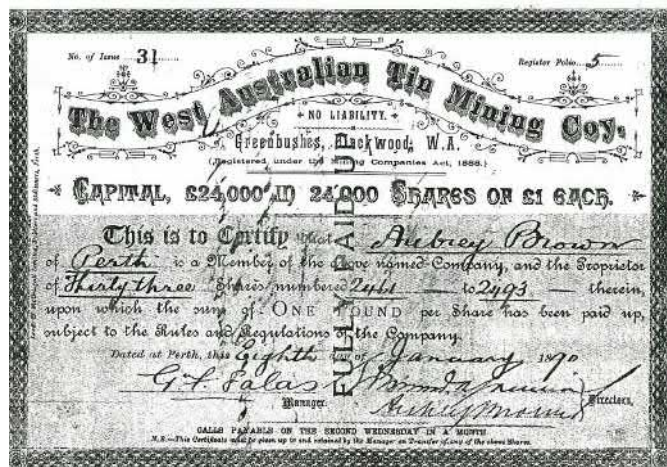
1923 – Discovered  
1883 – Mining  
1994 – Chemical plant  
2007 – Lithium focus  
300ktpa – 2.5Mtpa



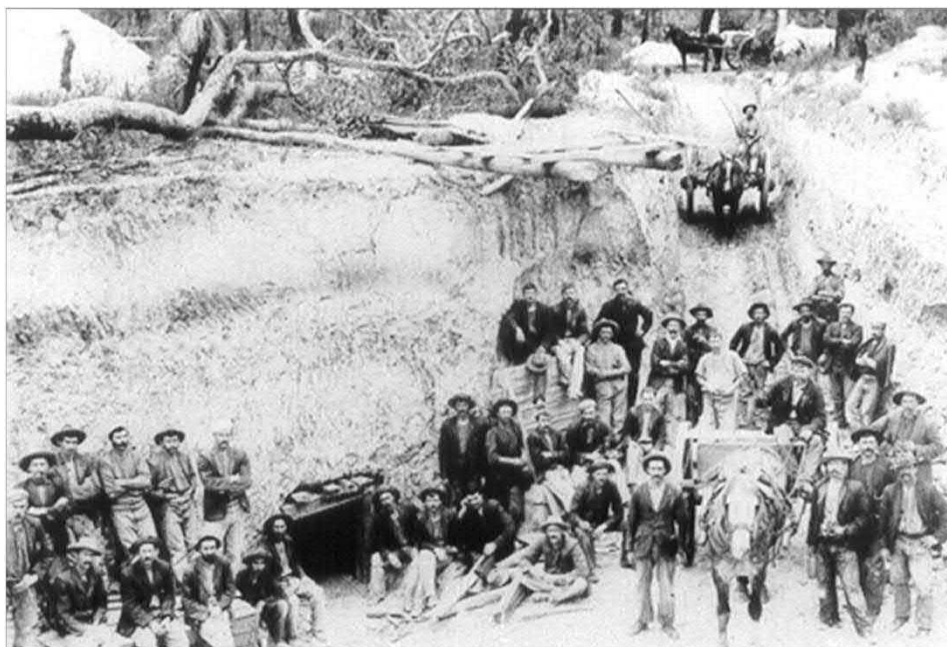
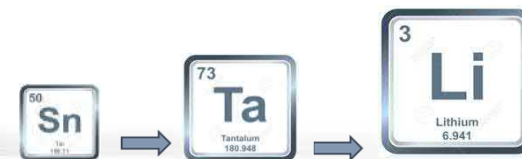
# Mining in Greenbushes from Tin to Lithium



- 1886 Tin Discovered – WD Stinton
- 1888 Lease staked
- 1888 Bunbury Tin Mining Company
- 1893 Tantalum Discovered
- 1970 Spodumene (Lithium) orebody discovered

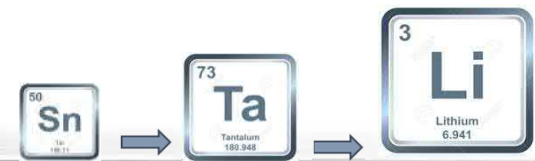


# Mining in Greenbushes from Tin to Lithium



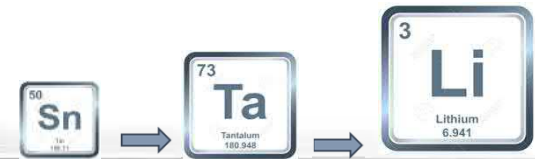


# Mining in Greenbushes from Tin to Lithium

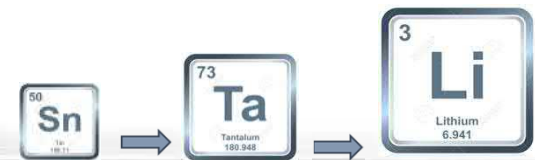




# Mining in Greenbushes from Tin to Lithium

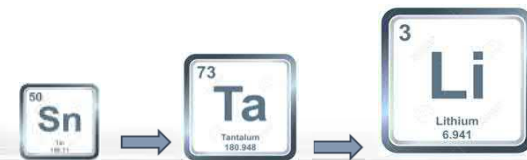


# Mining in Greenbushes from Tin to Lithium



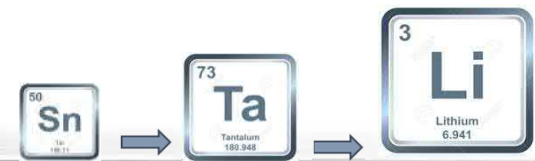


# Mining in Greenbushes from Tin to Lithium



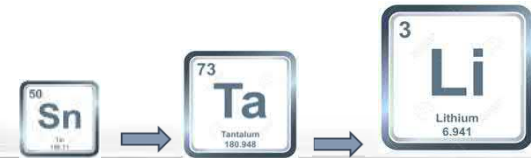


# Mining in Greenbushes from Tin to Lithium

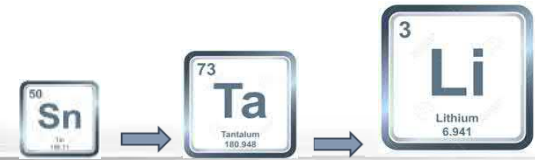




# Mining in Greenbushes from Tin to Lithium

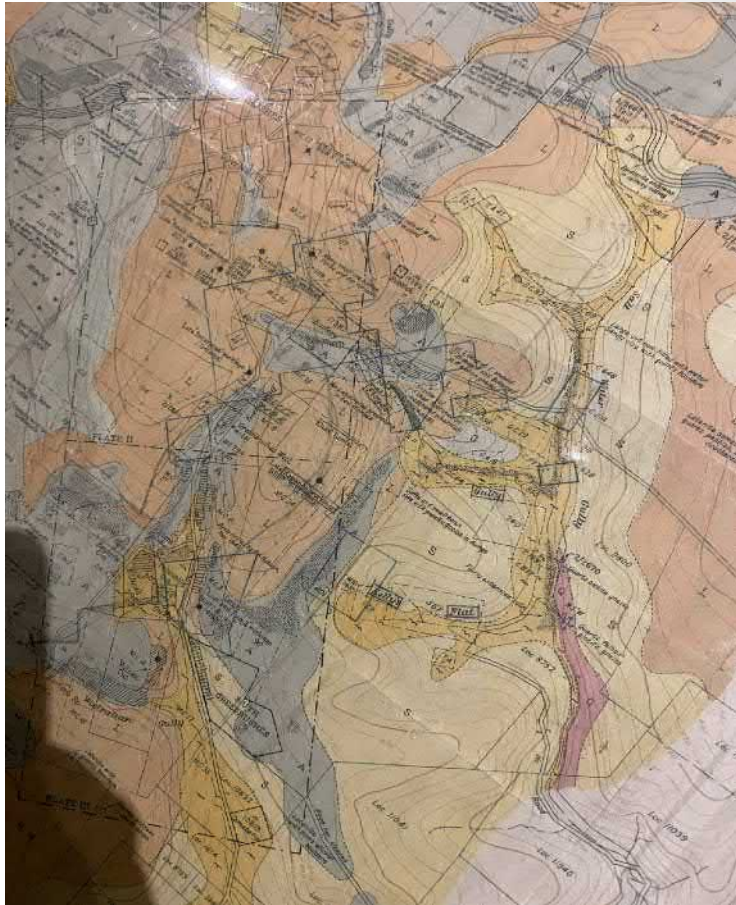
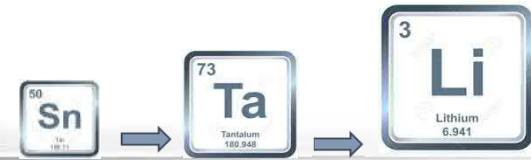


# Mining in Greenbushes from Tin to Lithium





# Mining in Greenbushes from Tin to Lithium

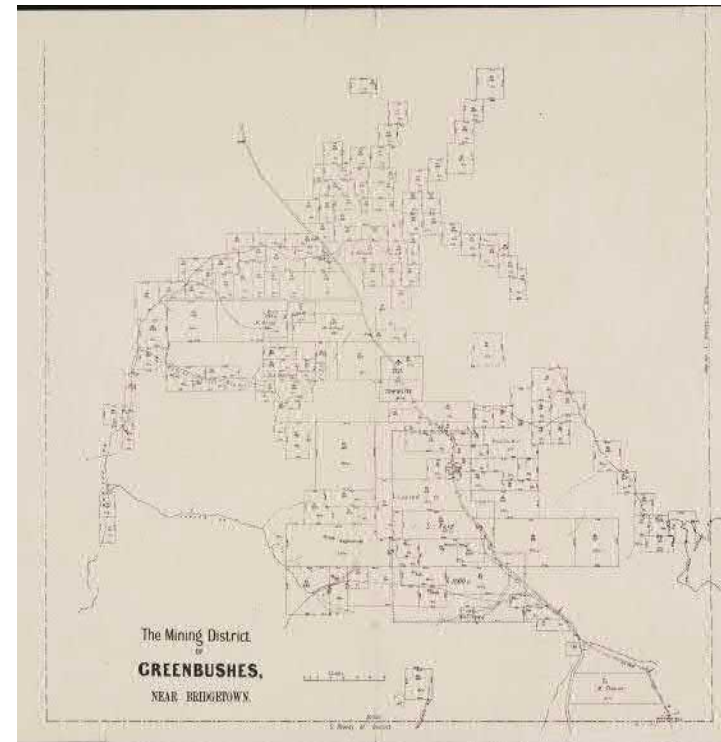


## Tin

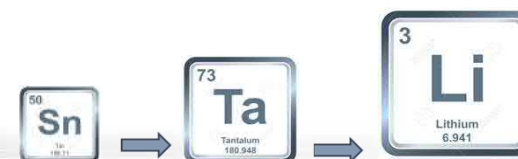
- 1893 to 1897 - 2000 lease applied for
- Smelters, crushing and dressing plants and several private and government treatment plants commenced operations
- Production short lived in 1897
- Production increased 1907 to 1911
- Production steadily decreased to 1929
- 1964 Greenbushes Tin took over all leases, plant equipment and smelters

## Lithium (Spodumene)

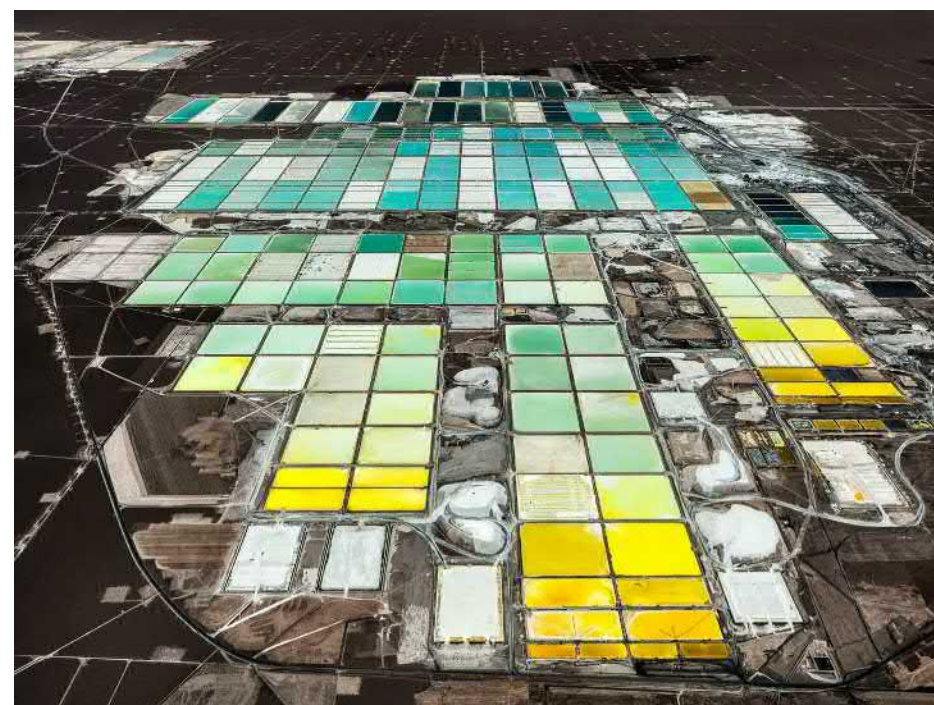
- 1923 – Discovered
- 1883 – Mining & concentrating
- 1994 – Chemical plant
- 2004 – 2007 Administration
- 2007 – Lithium focus
- 300ktpa – 2.5Mtpa



# Mining in Greenbushes from Tin to Lithium



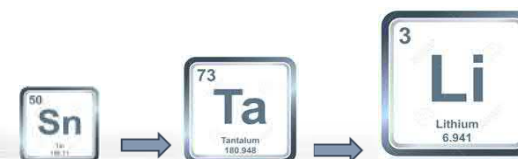
Hard Rock Deposits



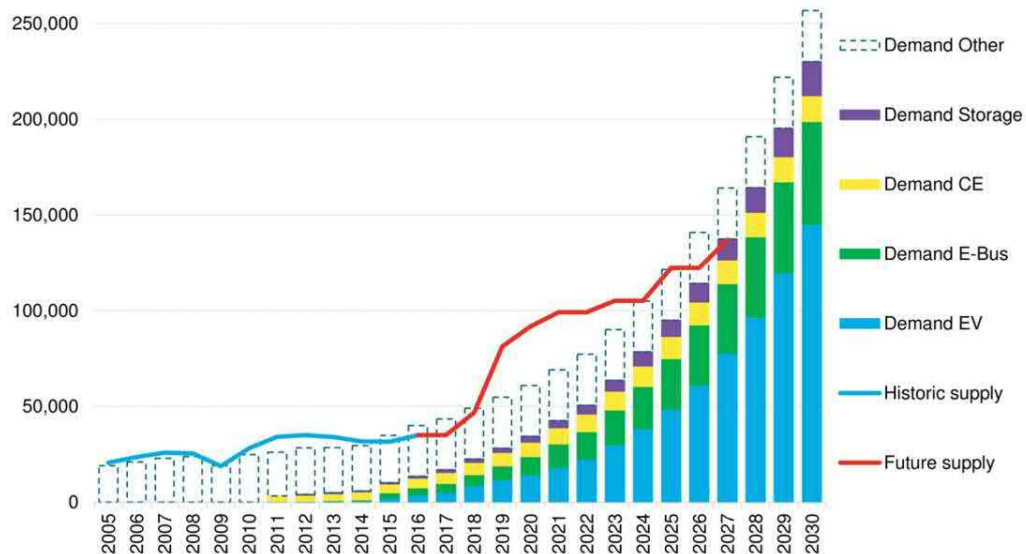
Brine Deposits



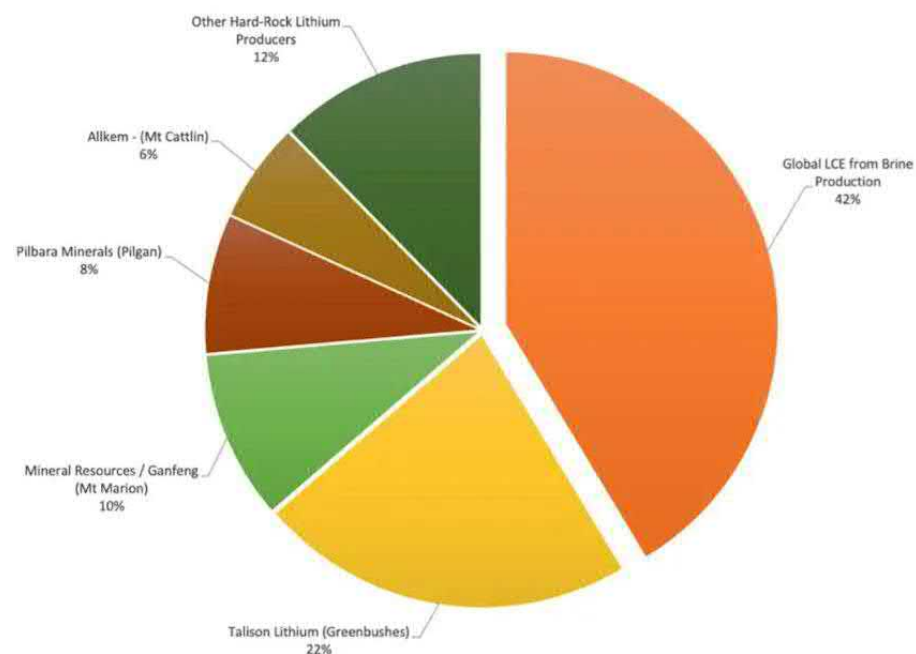
# Mining in Greenbushes from Tin to Lithium



Lithium market (metric ton/year)

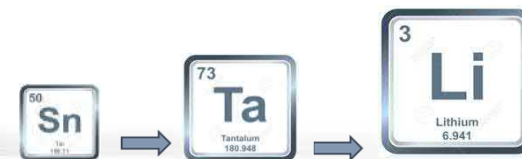


Global Lithium LCE Production 2021



Top 4 Australian Lithium Mining Projects account for 46% total LCE Production, and 79% hard-rock LCE in 2021

# Mining in Greenbushes from Tin to Lithium



- Population ~3000 in 1907 to ~400 2023
- Multiple communities





# Mining in Greenbushes from Tin to Lithium



BUNBURY TIN MINING COMPANY  
VULCAN TIN MINING COMPANY

West Australian Tin Mining Company  
Spring Valley Tin  
Greenbushes Mineral Syndicate

Amalgamated Tin  
Aberfoyle Mining Company



GREENBUSHES TIN MINE

GL GREENBUSHES LTD  
INCORPORATED IN VICTORIA

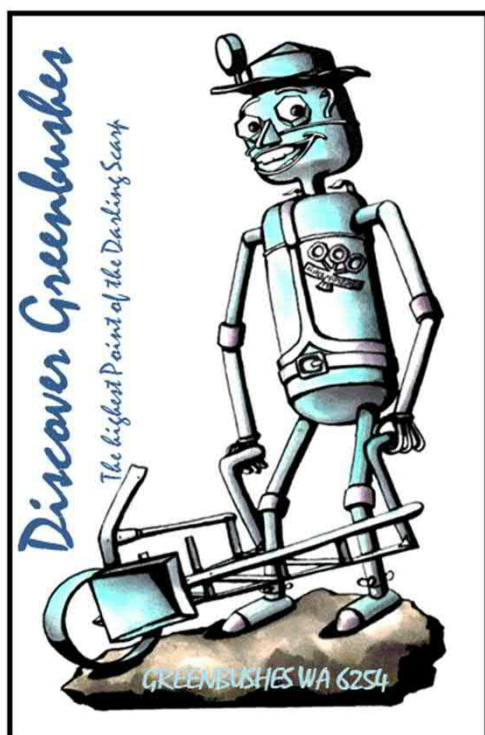


GREENBUSHES TIN MINE  
(INCORPORATED IN VICTORIA)  
TIN AND TANTALITE PRODUCERS  
MINE OFFICE:  
P.O. BOX 31, GREENBUSHES, W.A. 6254  
TEL (097) 64 3567 54 3598 TELEX AA91482



TIANQI LITHIUM

# Mining in Greenbushes from Tin to Lithium



## Discover More at the Greenbushes Discovery Centre

*History of:*

- *Mining Industry*
- *Timber Industry*
- *Farming & Settlement farmers*
- *Built environment*
- *Indigenous groups*

## QUESTIONS

