



Western Australia's principal mining projects (2016-17)

Western Australia's 116 principal mining projects each produced minerals valued at over \$5 million (or more than 2500oz of gold) in 2016-17.

Collectively, these projects produced 99 per cent of the industry's total production, by value, of \$85.9 billion. Projects on private land, for which production values are not required to be reported, are included where employee numbers were greater than 50.

The State's mining industry also comprises hundreds of quarries and small mines that largely produced the basic raw materials required for the local construction industry. This includes clays, construction materials (aggregate, gravel, rock and sand), dimension stone, gypsum, limestone, limesand and spongolite.

The attached tables provide details of the principal mining projects, as well as the principal producers of basic raw materials and the State's major mineral processing operations.

Company	Project	Comments
MINING PROJECTS		
Base metals		
EMR Capital Pty Ltd	Golden Grove	MMG Limited was acquired by EMR Capital Pty Ltd in February 2017.
Independence Group NL	Jaguar	
Metals X Ltd	Nifty	Acquired by Metals X Ltd from Aditya Birla Minerals Limited in August 2016.
Sandfire Resources NL	DeGrussa	
Bauxite		
Alcoa of Australia Ltd	Huntly	
Alcoa of Australia Ltd	Willowdale	
South32 Worsley Alumina Pty Ltd	Boddington	
Coal		
Lanco Infratech Ltd	Griffin Coal	
Premier Coal Limited	Premier Coal	
Diamonds		
Rio Tinto Ltd	Argyle	
Gold		
AngloGold Ashanti Australia Limited	Sunrise Dam	
AngloGold Ashanti Australia Limited	Tropicana Joint Venture	Joint venture between AngloGold Ashanti (70%) and Independence Group NL (30%).
Austral Pacific Pty Ltd	Paris	New project. First sales achieved in the March quarter 2017.
Beacon Minerals Limited	Barlee	While mining operations were completed in April 2015, sales of stockpiled materials were made in the September quarter 2016.

Company	Project	Comments
Gold (cont)		
Billabong Gold Pty Ltd	Plutonic	Acquired by Billabong Gold Pty Ltd from Northern Star Resources Ltd in October 2016.
Blackham Resources Ltd	Matilda/Wiluna	Project re-opened, following suspension of operations in 2013. New sales achieved in October 2016.
Corinthian Mining Pty Ltd	Corinthia	
Doray Minerals Limited	Andy Well	
Doray Minerals Limited	Deflector	New project. Sales commenced in May 2016.
Evolution Mining Limited	Edna May	
Evolution Mining Limited	Mungari	
Excelsior Gold Limited	Kalgoorlie North	
FMR Investments Pty Ltd	Gordon-Sirdar	Project re-opened, following suspension of operations in March 2014. New sales achieved in January 2016.
Genesis Minerals Ltd	Ulysses	New project. Sales commenced in the December 2016 quarter.
Gold Fields Limited	Agnew/Lawlers	
Gold Fields Limited	Darlot	Acquired by Red 5 Ltd from Gold Fields Ltd in October 2017.
Gold Fields Limited	Granny Smith	
Gold Fields Limited	St Ives	
GME Resources Limited	Devon	
Intermin Resources Ltd	Teal	New project. Sales commenced in March 2017.
Kalgoorlie Consolidated Gold Mines	Kalgoorlie Super Pit/ Mt Charlotte	
Millennium Minerals Limited	Nullagine	
Minjar Gold Pty Ltd	Golden Dragon	Project renamed (formerly known as Minjar Gold).
Newcrest Mining Limited	Telfer	
Newmont Australia Pty Ltd	Boddington	
Northern Star Resources Ltd	Jundee	
Northern Star Resources Ltd	Kanowna Belle	
Northern Star Resources Ltd	Kundana	Joint venture between Northern Star Resources (51%) and Rand and Tribune (49%).
Northern Star Resources Ltd	Paulsens	
Norton Gold Fields Ltd	Paddington	
Pantoro Limited	Halls Creek	
Ramelius Resources Ltd	Kathleen Valley	Mining was completed in the September 2016 quarter.
Ramelius Resources Ltd	Mt Magnet	
Ramelius Resources Ltd	Vivien	
Regis Resources Ltd	Duketon	
Saracen Mineral Holdings Ltd	Carosue Dam	

Company	Project	Comments
Gold (cont)		
Saracen Mineral Holdings Ltd	Thunderbox	Part of the Thunderbox project, the King of the Hills mine, was acquired by Red 5 Ltd from Saracen in October 2017.
Shandong Tianye Group Bid Co Pty Ltd	Southern Cross	Shandong Tianye Group acquired the project from Hanking Gold Mining Pty Ltd in February 2017.
Silver Lake Resources Ltd	Mt Monger	
St Barbara Mines Ltd	Gwalia	
Westgold Resources Limited	Central Murchison	Ownership transferred from Metals X to Westgold Resources in December 2016.
Westgold Resources Limited	Higginsville	Ownership transferred from Metals X to Westgold Resources in December 2016.
Westgold Resources Limited	South Kalgoorlie	Ownership transferred from Metals X to Westgold Resources in December 2016.
Iron ore		
Atlas Iron Limited	Abydos	
Atlas Iron Limited	Wodgina	Iron ore mining was completed at Wodgina in April 2017.
Atlas Iron Limited	Mt Webber	
BC Iron Limited	Iron Valley	
BHP Billiton Ltd	Eastern Ridge (Orebody 24/25)	
BHP Billiton Ltd	Jimblebar/Wheelara	
BHP Billiton Ltd	Mining Area C	
BHP Billiton Ltd	Mt Whaleback/ Orebody 29/30/35	
BHP Billiton Ltd	Orebody 18	
BHP Billiton Ltd	Yandi	
CITIC Pacific Mining Management Pty Ltd	Sino Iron	
Cliffs Natural Resources Pty Ltd	Koolyanobbing	
Fortescue Metals Group Ltd	Chichester Hub	Comprises Christmas Creek and Cloudbreak mines.
Fortescue Metals Group Ltd	Solomon Hub	Comprises Firetail and Kings mines.
Hancock Prospecting Pty Ltd	Roy Hill	
Karara Mining Limited	Karara	
Mount Gibson Iron Limited	Extension Hill	Mining completed at Extension Hill in November 2016.
Mount Gibson Iron Limited	Tallering Peak	Mining operations suspended in mid-2014, but sales of remnant materials occurred during 2016-17.
Polaris Metals Pty Ltd	Carina	
Rio Tinto Ltd	Brockman 2 – Nammuldi - Silvergrass	The Silvergrass mine officially opened on 30 August 2017.
Rio Tinto Ltd	Brockman 4	
Rio Tinto Ltd	Greater Paraburdoo	Comprises the Paraburdoo, Channar and Eastern Range mines.

Company	Project	Comments
Iron ore (cont)		
Rio Tinto Ltd	Hope Downs 1	
Rio Tinto Ltd	Hope Downs 4	
Rio Tinto Ltd	Marandoo	
Rio Tinto Ltd	Mt Tom Price	
Rio Tinto Ltd	Robe Valley (Mesa A & Mesa J)	
Rio Tinto Ltd	West Angelas	
Rio Tinto Ltd	Yandicoogina	
Manganese		
Consolidated Minerals Pty Ltd	Woodie Woodie	While mining operations were suspended in February 2016, the sale of low grade manganese ore stockpiles continued throughout 2016-17.
Hancock Prospecting Pty Ltd	Nicholas Downs	While mining operations have been suspended since late 2011, the sale of manganese ore stockpiles occurred on an <i>ad hoc</i> basis during 2016-17.
Mineral sands		
Cristal Mining Australia Ltd	Wonnerup mine/North Shore mineral separation plant	Tronox Limited acquired Cristal Mining in February 2017.
Doral Mineral Sands Pty Ltd	Dardanup	
GMA Garnet Pty Ltd	Port Gregory	
Iluka Resources Ltd	Capel operations	Comprises the Tutunup South mine, North Capel mineral separation plant and North Capel synthetic rutile kiln.
Iluka Resources Ltd	Eneabba operations	Comprises the Eneabba mine, Narngulu synthetic rutile plant, and Narngulu mineral separation plant. The Eneabba mine and Narngulu synthetic rutile plant are both on care and maintenance.
MZI Resources Ltd	Keysbrook	
Tronox Limited	Cooljarloo mine/ Chandala mineral separation plant	
Nickel		
BHP Billiton Ltd (Nickel West)	Cliffs	
BHP Billiton Ltd (Nickel West)	Leinster	
BHP Billiton Ltd (Nickel West)	Mt Keith	
First Quantum Minerals Ltd	Ravensthorpe	Mining operations suspended in October 2017.
Independence Group NL	Long	
Independence Group NL	Nova	New project. First concentrate shipment made in December 2016.
Minara Resources NL	Murrin Murrin	
Panoramic Resources Ltd	Savannah	Mining operations suspended in May 2016. Sales of stockpiled materials continued during 2016-17.

Company	Project	Comments
Nickel (cont)		
Royal Nickel Corporation	Beta-Hunt	Acquired by Royal Nickel Corporation from Salt Lake Mining Pty Ltd in May 2016.
Western Areas Ltd	Forrestania	
Rare earths		
Lynas Corporation Ltd	Mt Weld	
Salt		
Dampier Salt Ltd	Dampier	
Dampier Salt Ltd	Lake MacLeod	
Dampier Salt Ltd	Port Hedland	
Onslow Salt Pty Ltd	Onslow	
Shark Bay Salt Pty Ltd	Shark Bay	
WA Salt Koolyanobbing Pty Ltd	Lake Deborah East	
Silica sand		
Hanson Construction Materials Pty Ltd	Gnangara	
T T Sand Pty Ltd	Mindijup	
Talc		
Imerys Talc Australia Pty Ltd	Three Springs	
Tin-tantalum-lithium		
Galaxy Resources Limited	Mt Cattlin	New project achieved first concentrate shipment in January 2017.
Global Advanced Metals Pty Ltd	Greenbushes Tantalum	
Mineral Resources Limited	Wodgina	New project achieved first ore shipment in April 2017.
Reed Industrial Minerals Pty Ltd	Mt Marion	New project achieved first concentrate shipment in February 2017.
Talison Lithium Australia Pty Ltd	Greenbushes Lithium	

PRINCIPAL PRODUCERS OF BASIC RAW MATERIALS	
Company	Project names/locations
BGC Contracting Pty Ltd	Chidlow
Boral Resources (WA) Ltd	Kalgoorlie, Kununurra, Mt Regal, Orange Grove, Perth North, Port Hedland (Turner River), Pilbara (Tabba Tabba)
Cockburn Cement Ltd	Cockburn, Dongara, Woodman Point
Hanson Construction Materials Pty Ltd	Bunbury, Byford, Learmonth, Mt Barker, Mt Regal, Red Hill
Holcim (Australia) Pty Ltd	Albany, Bunbury, Esperance, Geraldton, Kalgoorlie, Karratha, Newman, Perth Metro, Port Hedland
Mobile Concreting Solutions Pty Ltd	Indee, Tom Price
Stirling Bay Holdings Pty Ltd	Pilbara
Westdeen Holdings Pty Ltd	Cowcowing, Dongara, Jurien Bay, Lancelin
WA Bluemetal	Byford
WA Limestone Co	North Metro, South Metro

MAJOR MINERAL PROCESSING OPERATIONS	
Company	Project
Alumina	
Alcoa of Australia Ltd	Kwinana Alumina Refinery
Alcoa of Australia Ltd	Pinjarra Alumina Refinery
Alcoa of Australia Ltd	Wagerup Alumina Refinery
South32 Worsley Alumina Pty Ltd	Worsley Alumina Refinery
Gold	
Gold Corporation	Perth Mint
Nickel	
BHP Billiton Ltd (Nickel West)	Kalgoorlie Nickel Smelter
BHP Billiton Ltd (Nickel West)	Kambalda Nickel Concentrator
BHP Billiton Ltd (Nickel West)	Kwinana Nickel Refinery
Silicon metal	
Simcoa Operations Pty Ltd	Kemerton Silicon Smelter
Titanium dioxide	
Tronox Limited	Kwinana Pigment Plant