# MINERAL DEPOSITS AND PETROLEUM FIELDS
# Western Australia — 2017

Age (Ma)

PHANEROZOIC
- Alluvial, eolian, and coastal deposits
- Marine limestone, sandstone, and valley fill deposits
- Marine and continental sedimentary rocks
- Marine and continental sedimentary rocks
- Marine and continental sedimentary rocks

PROTEROZOIC / ARCHEAN
- Sandstone, shale, and limestone
- Sandstone and shale
- Sedimentary rocks
- Iron formation and shale
- Sedimentary and volcanic rocks
- Sedimentary rocks and basalt
- Sedimentary and volcanic rocks
- Mafic and ultramafic igneous rocks
- Metamorphosed mafic and ultramafic igneous rocks
- Metamorphosed sedimentary and felsic volcanic rocks
- Granite and gneiss
- Gneiss

Major road
Formed road
Track
Railway, operating
Railway, proposed
Gas pipeline
Gas pipeline, proposed
Oil pipeline
Oil pipeline, proposed
City — PERTH
Townsite
population 10 000 – 15 000 — KARRATHA
1000 – 10 000 — PINJARRA
less than 1000 — Dardanup
Aboriginal community — Beagle Bay
Homestead — Carbine
Locality — Pardoo Roadhouse

Watercourse, predominantly ephemeral
Paleodrainage, inactive or rarely active
Bathymetric contour, metres — 200 m
Reef
Outer limit of WA coastal waters

Mine or field, operating or under development — Tom Price
Deposit or closed/historic mine or field — Talisker

Fault *
Normal fault; tick on downthrown side
Thrust; triangle on upthrown side *
Reverse fault; triangle on upthrown side
* Broken lines indicate extrapolation beneath younger rocks

**ALUMINA**
All sites are bauxite

**BASE METAL**
Sb — Antimony
Cu — Copper
Pb — Lead
Zn — Zinc

**CONSTRUCTION MATERIAL**
Dimension stone
BlackGran — Black granite
Dlt — Dolerite
Gab — Gabbro
Gran — Granite
Marb — Marble
OrbicGran — Orbicular granite
Qtze — Quartzite
Sdst — Sandstone
Slate — Slate
All other construction materials

**ENERGY**
Coal — Coal — undifferentiated
Lignite — Lignite
Th — Thorium
U — Uranium

**INDUSTRIAL MINERAL**
Aglime — Agricultural lime
Alu — Alunite
And — Andalusite
Ath — Anthophyllite
Ap — Apatite
As — Arsenic
Asbs — Asbestos — chrysotile (serpentine)
Asbr — Asbestos — crocidolite (riebeckite)
Atta — Attapulgite
Brt — Barite
Ba — Barium
Bent — Bentonite
Brl — Beryl — undifferentiated
Cal — Calcite
Cali — Calcrete — caliche
Core — Corundum — emery
Cor — Corundum — undifferentiated
Diat — Diatomite
Dol — Dolomite
Fel — Feldspar
Fl — Fluorite
Grt — Garnet
Glt — Glauconite
Gr — Graphite
Gp — Gypsum
Hem–MIO — Hematite — micaceous iron oxide
Kln — Kaolin
Ky — Kyanite
Lsd — Limesand
Lst — Limestone
$MgCO_3$ — Magnesite
MgsNi — Magnesite — nickel rich
$MgCl_2$ — Magnesium chloride
Mica — Mica
Mnt — Montmorillonite
Ochre — Ochre
Peat — Peat
Phos — Phosphate
$K_2O$ — Potash
K — Potassium
$K_2SO_4$ — Potassium sulphate
Qtz — Quartz — undifferentiated
Salt — Salt
Spn — Saponite
$SiO_2$ — Silica
Sisd — Silica sand
Spon — Spongolite
St — Staurolite
S — Sulphur
Tlc — Talc
Vrm — Vermiculite

**IRON**
Fe unless otherwise indicated
Fe — Iron
Mag — Magnetite

**PETROLEUM**
Gas
Oil
Oil and gas

**PRECIOUS METAL**
Au unless otherwise indicated
Au — Gold
Pd — Palladium
Pt — Platinum
PGE — Platinum group elements
Rh — Rhodium
Ag — Silver

**PRECIOUS MINERAL**
Aga — Agate
Alex — Alexandrite
Brla — Beryl — aquamarine
Brle — Beryl — emerald
Clc — Chalcedony — undifferentiated
Chert — Chert
Cbe — Chrysoberyl
Chrp — Chrysoprase
Dmd — Diamond — undifferentiated
Jasp — Jasper
Mookaite — Mookaite (silicified radiolarite)
Agam — Moss agate
Mossopal — Moss opal
Opalc — Opal — common
Opalg — Opal — gem
Prh — Prehnite
Qtza — Quartz — amethyst
Qtzr — Quartz — rose
Qtzs — Quartz — smokey
Srp — Serpentine
TiEye — Tiger eye
Toz — Topaz
Tur — Tourmaline
Vrs — Variscite
Zeb — Zebra rock

**SPECIALITY METAL**
HM unless otherwise indicated
Bi — Bismuth
HM — Heavy minerals
Lpd — Lepidolite
Li — Lithium
$MgCO_3$ — Magnesite
Nb — Niobium
REE — Rare earth elements
Spd — Spodumene
Ta — Tantalum
Sn — Tin
Xen — Xenotime
Y — Yttrium
Zr — Zirconium

**STEEL ALLOY METAL**
Cr — Chromium
Co — Cobalt
Mn — Manganese
Mo — Molybdenum
Ni — Nickel
Sc — Scandium
Ti — Titanium
W — Tungsten
V — Vanadium

**INFRASTRUCTURE**
Refinery or smelter
Only selected plants shown
Port, operating
Port, proposed

Government of **Western Australia**
Department of **Mines and Petroleum**
HON. SEAN K L'ESTRANGE MLA
MINISTER FOR MINES AND PETROLEUM

Geological Survey of Western Australia
RICK ROGERSON
EXECUTIVE DIRECTOR

SCALE 1:3 000 000
0 100 200 300 400
KILOMETRES
ALBERS EQUAL AREA PROJECTION WITH CENTRAL MERIDIAN 121° AND STANDARD PARALLELS 17°30' AND 31°30'
HORIZONTAL DATUM: GEOCENTRIC DATUM OF AUSTRALIA 1994 (GDA94)


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Geology generated from Martin, DMcB, Hocking, RM, Riganti, A and Tyler, IM 2015, Geological map of Western Australia, 1:2 500 000 (14th edition): Geological Survey of Western Australia
Information on mineral deposits held in MINEDEX database, Department of Mines and Petroleum, at January 2017. Only selected mines and deposits are labelled.
Up-to-date information on mines and mineral deposits in Western Australia, including their operating status, can be found online in the MINEDEX database at <www.dmp.wa.gov.au/minedex>.
Information on petroleum fields and significant petroleum discoveries in Western Australia (onshore and in State-controlled waters) is held in WAPIMS database, DMP, January 2017. Field data for offshore Commonwealth-controlled waters is up-to-date as of mid-2012; enquiries for the latest information on fields in offshore waters should be addressed to the National Offshore Petroleum Titles Administrator (NOPTA) at info@nopta.gov.au.
Topography from Landgate, 2013

This map is published in digital format (PDF) and is available online at <www.dmp.wa.gov.au/GSWApublications>
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