

# Fieldnotes



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

[www.dmirns.wa.gov.au/GSWA](http://www.dmirns.wa.gov.au/GSWA)

## Successful applicants from EIS Round 22

*pages 3 and 4*

## The Archean Jaguar VHMS deposit, Eastern Goldfields

*page 5*

## New drone-assisted 3D models of outcrops

*page 6*

## Expanding the picture of geoheritage

*page 10*



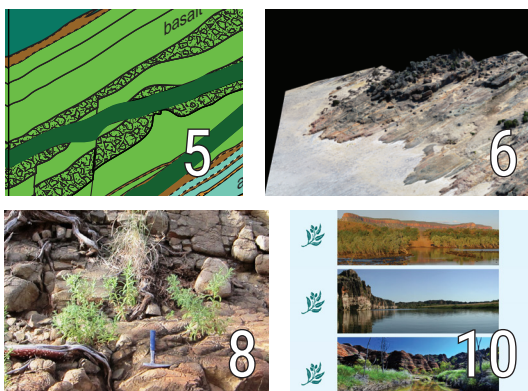


## FEATURES

- 3, 4 Exploration Incentive Scheme
- 5 Eastern Goldfields
- 6 Albany–Fraser Orogen
- 7 Eastern Goldfields Superterrane
- 8 Minga and Kulkatharra Dolerite dykes
- 9 Northern Capricorn Orogen
- 10 Geoheritage

## REGULARS

- 11 Product releases



## EDITORIAL TEAM

### Editor

Robin Bower, Manager Editing and Publishing

### Design and layout

Bec Hitchings, Desktop Publisher

### Graphics

Michael Prause, Graphics Manager

### Contributors to this issue

Olga Blay  
Louisa Dent  
Josh Guilliamse  
Raphael Quentin de Gromard  
Charlotte Hall  
Sarah Martin  
Jyotindra Sapkota  
Hugh Smithies

### Disclaimer

Products use information from various sources. The Department of Mines, Industry Regulation and Safety (DMIRS) and the State cannot guarantee the accuracy, currency or completeness of the information. DMIRS and the State accept no responsibility and disclaim all liability for any loss, damage or costs incurred as a result of any use of or reliance, whether wholly or in part, upon the information provided in this publication or incorporated into it by reference.

## Access publications

### All publications

Download maps, reports and digital information free from our [website](#).

### Hard copies

Maps, USB data packages and various premium publications are available to purchase as hard copies from the eBookshop or the First Floor counter at Mineral House, 100 Plain Street, East Perth WA 6004. An online cart and payment system is in place. Records, Reports, Bulletins and other non-series books cannot be purchased in hard copy but are all available as PDFs to view and download free of charge.

### Fieldnotes

Fieldnotes is a free digital-only quarterly newsletter published by the Geological Survey of Western Australia (GSWA). The newsletter provides regular updates to the State's exploration industry and other geoscientists about GSWA's latest work, programs, products and services.

Access Fieldnotes by:

- subscribing to the [GSWA eNewsletter](#) – there will be a Fieldnotes page with a link to the latest issue
- browsing previous issues from the [eBookshop](#).

### GSWA eNewsletter

The GSWA eNewsletter is an online newsletter delivered roughly once a month that contains information on workshops, field trips, training, events and the latest releases of maps, books and digital data packages. If you would like to stay informed about new products, services and other news, please [subscribe](#).

GSWA publishes a vast amount of pre-competitive geoscience information on the State, contributing to billions of dollars' worth of resources for exploration and development. To find more information about publications and maps we publish, go to our [website](#).



**Cover image:** Base camp in the Prices Creek area, part of the Lennard Shelf, Canning Basin (photo by Umar Azad, DMIRS)



# Exploration Incentive Scheme

## Successful applicants from Round 22

The Minister for Mines and Petroleum, Bill Johnston, has announced 57 successful projects for Round 22 of the Exploration Incentive Scheme's (EIS) Co-funded Exploration Drilling Program. The government offered co-funding of up to a total of \$6.38 million to 46 companies and eight prospectors in November 2020 (Fig. 1).

For Round 22, 96 applications were submitted, with a 57% increase in application numbers compared to Round 21, and the third highest number of applications since the Scheme's initiation in 2009.

Following the government's \$5 million EIS funding boost as part of the State COVID-recovery program, extra funding was available for Round 22 and similarly for the upcoming Round 23 co-funded drilling. The one-off boost sees EIS funding increase to \$15 million for 2020–21.

In the Co-funded Exploration Drilling Program, successful applicants will be refunded up to 50% of their direct drilling costs

— with caps of \$150 000 for a multi-hole project, \$200 000 for a single deep hole, and \$30 000 for a prospector's project.

Further benefits are available in Round 22, with companies now able to apply for additional co-funding in order to cover the cost of core trays, but only where at least half core is submitted to a State core library. Companies are now also permitted to include mobilization costs in their estimate of direct drilling costs at the time of submission, where previously this cost was excluded in the calculation.

The successful applicants for Round 22 are distributed across the State, with a number of projects looking to drill in remote locations close to the State's eastern border (Fig. 1). Applications for gold projects featured in this round, reflecting the strong gold price, with more than 25% of successful explorers targeting battery metals. Exploration projects for potash and rare earth elements were also successful (Fig. 2).

### GENERAL

- 1 AIC Resources Ltd
- 2 Alto Metals Limited
- 3 AngloGold Ashanti
- 4 Ardea Resources Ltd
- 5 Ausgold Exploration Ltd
- 6 Australian Light Minerals
- 7 Australian Vanadium Ltd
- 8 Black Raven Mining
- 9 Carawine Resources Ltd
- 10 Coronet Resources Ltd
- 11 Desert Metals Ltd
- 12 Encounter Resources
- 13 Gateway Mining
- 14 Gold Road Resources Limited
- 15 Gold Road Resources Limited
- 16 Great Boulder Resources
- 17 Great Southern Mining Ltd
- 18 Halls Creek Mining Pty Ltd
- 19 Hammer Metals Ltd
- 20 Hexagon Energy Material Ltd
- 21 IGO
- 22 Kairos Minerals Ltd
- 23 Kalgoorlie Nickel Pty Ltd
- 24 Karora Resources
- 25 Latitude Consolidated Ltd
- 26 Logan Barber
- 27 Logan Barber
- 28 Lynas Corporation – Mt Weld Mining P/L
- 29 Maria Resources Pty Ltd
- 30 Medallion Metals Pty Ltd
- 31 Mineral Resources Limited
- 32 Minjar Gold Pty Ltd
- 33 Moho Resources Ltd
- 34 Musgrave Minerals Ltd
- 35 OZ Minerals Ltd
- 36 Paterson Resources Ltd
- 37 Peakto Ltd
- 38 Redstone Resources Limited
- 39 Regis Resources Ltd.
- 40 Rumble Resources Ltd
- 41 Sahul Exploration Pty Ltd
- 42 Saracen Gold Mines Pty Ltd
- 43 Southern Star Exploration Pty Ltd
- 44 Strickland Metals Limited
- 45 Tali Resources
- 46 Trigg Mining Ltd
- 47 Vango Mining Ltd
- 48 Vango Mining Ltd
- 49 Yilgarn Exploration Ventures Pty Ltd

### PROSPECTOR

- 50 Bacome Pty Ltd
- 51 Baracus Pty Ltd
- 52 Boulder Investments Group Pty Ltd
- 53 EasyOz Resources Pty Ltd
- 54 Gotta Resources Pty Ltd
- 55 Ladislav Stanko
- 56 Lance Cuijpers
- 57 Paul Simmonds

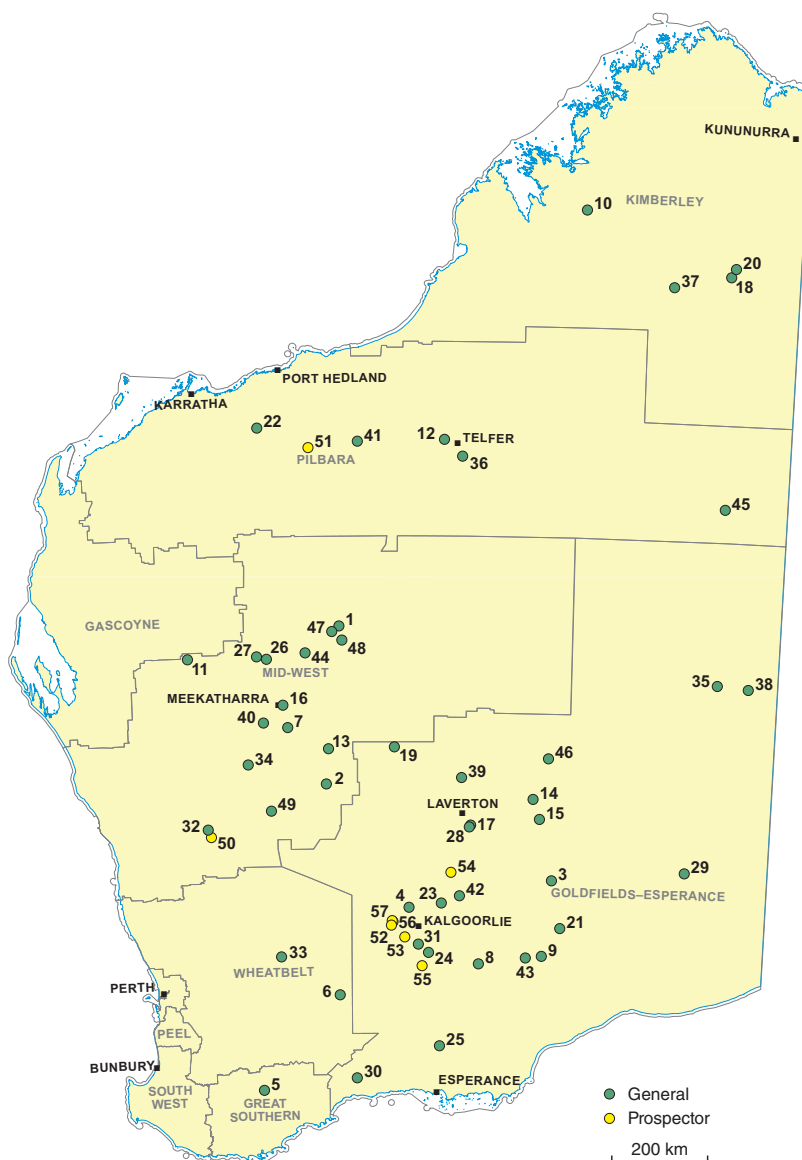


Figure 1. Locations of successful applicants, Round 22

# Exploration Incentive Scheme

Map ID	Application type	Applicant Name	Drilling project title	Target commodities
1	General	AIC Resources Ltd	Stetson (Plutonic Extension)	Au
2	General	Alto Metals Limited	Edale Shear Zone	Au
3	General	AngloGold Ashanti	Bushwacker project	Au
4	General	Ardea Resources Ltd	Windanya – Au-stratigraphy	Au
5	General	Ausgold Exploration Ltd	Katanning Regional Thrust Drilling	Au, Ag, Zn
6	General	Australian Light Minerals	Texas Rare-Element Pegmatite Exploration	Li, Ta, Nb, Cs, Sn
7	General	Australian Vanadium Ltd	Lady Alma Intrusion PGE potential	PGE, Ni, Cu, Au
8	General	Black Raven Mining	Erayinia EO04 Orogenic Gold project	Au
9	General	Carawine Resources Ltd	Big Bang project	Ni, Cu, Au
10	General	Coronet Resources Ltd	Napier Project	Zn, Pb, Ag
11	General	Desert Metals Ltd	Innouendy-Irrida Hill	Ni, Cu, PGE
12	General	Encounter Resources	Elsa Dune Gap Prospects	Au, Cu
13	General	Gateway Mining	Montague Dome project	Au
14	General	Gold Road Resources Limited	Joe Hill project	Au
15	General	Gold Road Resources Limited	Redback Prospect	Au
16	General	Great Boulder Resources	Mulga Bill Diamond	Au, Cu
17	General	Great Southern Mining Ltd	Mount Weld Scandium-Cobalt Project	REE, Ni, Co, Sc
18	General	Halls Creek Mining Pty Ltd	Mary River project	Au
19	General	Hammer Metals Ltd	Orelia project	Au
20	General	Hexagon Energy Material Ltd	Halls Creek Gold Project	Au, Cu,
21	General	IGO	Titan project	Cu, Ni, Co, Au, Ag
22	General	Kairos Minerals Ltd	Croydon Conglomerate Basement Au project	Au
23	General	Kalgoorlie Nickel Pty Ltd	Binti South project	Ni
24	General	Karora Resources	Testing the Hunt East concept	Ni, Au
25	General	Latitude Consolidated Ltd	Circle Valley project	Au
26	General	Logan Barber	Bryah West E52/3792	Au, Cu
27	General	Logan Barber	Bryah West E52/3793	Au, Ag, Cu
28	General	Lynas Corporation - Mt Weld Mining P/L	Mt Weld fresh carbonatite project	Nd, Pr, Dy, Ce, Nb, U and 25 others
29	General	Maria Resources Pty Ltd	Leviathan Project	Au, Cu, Ni, Pb, Zn, PGE, Co, Zr, Nb, REE
30	General	Medallion Metals Pty Ltd	Old Greg VTEM Anomaly	Au, Cu, Ag
31	General	Mineral Resources Limited	Mt Marion project	Li
32	General	Minjar Gold Pty Ltd	Windinne East project	Au, Ag, Cu, Pb, Zn
33	General	Moho Resources Ltd	Crossroads Intrusive Mineral System	Au
34	General	Musgrave Minerals Ltd	Moyagee Regional Link-Lode Gold	Au
35	General	OZ Minerals Ltd	Jamison Fault project	Ni, Cu, PGEs
36	General	Paterson Resources Ltd	Grace Gold Copper - north project	Au, Cu
37	General	Peako Ltd	Northeast Intrusion-related Gold Targets	Au (Ag, Cu, Pb, Zn)
38	General	Redstone Resources Limited	Tollu project	Cu, Ni, Co
39	General	Regis Resources Ltd.	Garden Well-Tooheys Well Trend	Au
40	General	Rumble Resources Ltd	Munarra Gully - Amaryllis project	Au
41	General	Sahul Exploration Pty Ltd	Intrusion related gold system–Nullagine	Au
42	General	Saracen Gold Mines Pty Ltd	CDO Seismic Target project	Au
43	General	Southern Star Exploration Pty Ltd	Zanthus South Nickel Project	Ni, Cu
44	General	Strickland Metals Limited	Doolgunna VMS Bryah Basin Project	Au, Cu, Pb, Zn, Ag
45	General	Tali Resources	Caspian IOCG drilling project	Cu, Au
46	General	Trigg Mining Ltd	Lake Throssell project	Potash
47	General	Vango Mining Ltd	Contessa Corridor, Gidgee Syenite Target	Au
48	General	Vango Mining Ltd	Triple-P Corridor, Vulcan Target	Au
49	General	Yilgarn Exploration Ventures Pty Ltd	Boodanoo project	Au
50	Prospector	Bacome Pty Ltd	Chulaar Valley	Cu, Pb, Zn, Ag, Au
51	Prospector	Baracus Pty Ltd	Tambourah King project	Au
52	Prospector	Boulder Investments Group Pty Ltd	Jaurdi West project	Au
53	Prospector	Easyoz Resources Pty Ltd	Greater Western project	Au
54	Prospector	Gotta Resources Pty Ltd	Yilgarn Queen and Beyond	Au, Ag, PGM
55	Prospector	Ladislav Stanko	Stanko's Reward Enigma project	Au
56	Prospector	Lance Cuijpers	M16/149 project	Au
57	Prospector	Paul Simmonds	Dunnsville Project	Au

Figure 2. List of successful applicants, Round 22

Round 21 of the Co-funded Exploration Drilling Program brought success for Bellevue Gold Limited which, under the scheme, drilled east of its existing high-grade Deacon lode, finding further gold mineralization. The EIS has also been noted as influential in De Grey's Hemi discovery. EIS funding was used to drill a separate De Grey target at Toweranna, the results of which provided De Grey with evidence of true vertical scale within a mineral system in the Pilbara Craton.

Comprehensive reports and data from each co-funded drilling project will be released and become publically available through the Department of Mines, Industry Regulation and Safety (DMIRS) WAMEX database six months after drilling is completed. The next round of co-funded drilling, Round 23, will open on 1 February 2021 and will close at a new time of 4 pm WST.

For more information, contact **Charlotte Hall** or **Louisa Dent**, or see **Guidelines for Submission of Applications**.



## The Archean Jaguar VHMS deposit, Eastern Goldfields

Jaguar is one of the few Archean Cu–Zn-rich volcanic-hosted massive sulfide deposits in the Eastern Goldfields region of the Yilgarn Craton (Fig. 1) to have been mined. Geological Survey of Western Australia (GSWA) Report 210 reproduces the thesis that Susan Belford submitted to the University of Tasmania in 2010 for the degree of Doctor of Philosophy. This thesis reconstructs the detailed stratigraphy of the c. 2.68 Ga host volcanic and volcanoclastic sequence to the Jaguar deposit (Fig. 2) based on detailed facies analyses and relationships, rock fabric and microstructure that are supported by the application of immobile element geochemistry. The lithofacies of discrete footwall, mineralized package and hangingwall units are described. The geological evolution of these units, including the massive sulfide assemblage, is reconstructed and placed within the geodynamic context of an evolving ensimatic rift environment, in an early back-arc basin setting.

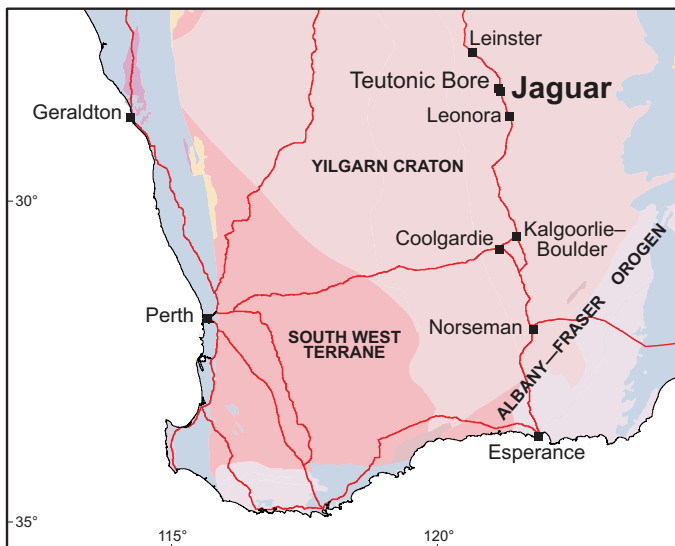


Figure 1. Location of the Jaguar VHMS deposit

**GSWA Report 210 Genetic and chemical characterisation of the host succession to the Archean Jaguar VHMS deposit** is available as a free downloadable PDF from the Department of Mines, Industry Regulation and Safety (DMIRS) eBookshop.

For more information, contact [Hugh Smithies](#).

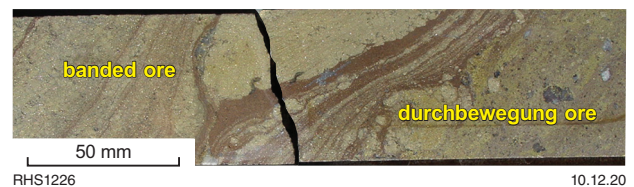
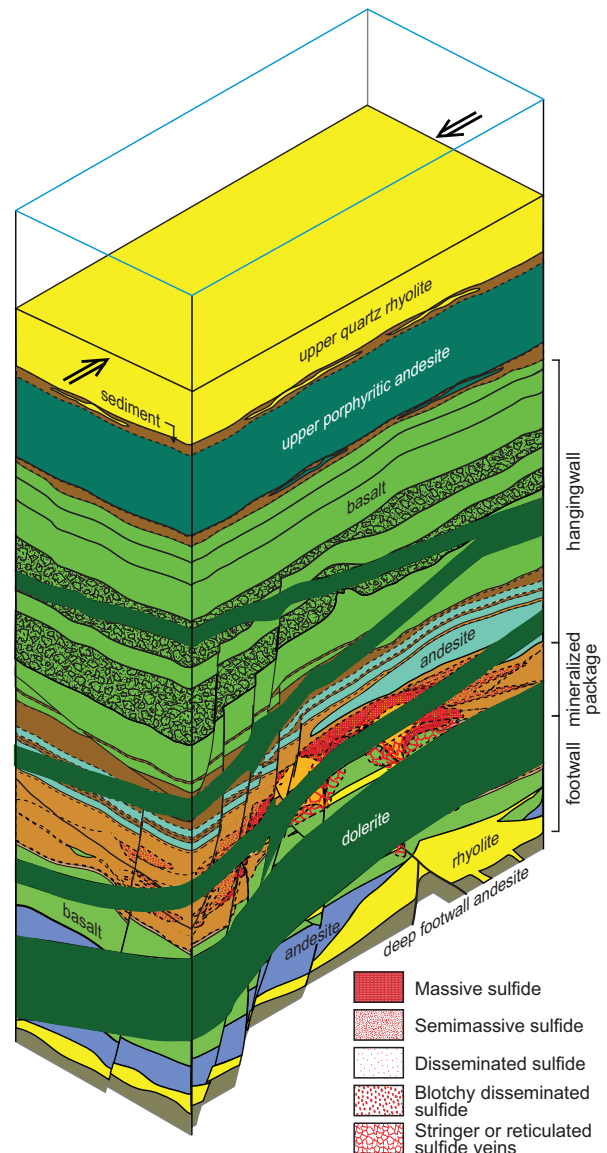


Figure 2. Highly schematic isometric block diagram showing the complete succession for Jaguar

# Albany–Fraser Orogen

## Updated interpreted bedrock geology and new drone-assisted 3D models of outcrops

The Geological Survey of Western Australia (GSWA) has released the first Geological Information Series (GIS) digital package for the east Albany–Fraser Orogen which builds on and supersedes the 2016 Geological Exploration Package of the similar area. This product contains new 1: 100 000 and 1: 500 000 pre-Carboniferous and updated 1: 500 000 pre-Mesozoic Interpreted Bedrock Geology (IBG) layers (Fig. 1) which provide regional geological context to recent economic discoveries.

Additionally, this is the first GIS package to include georeferenced high-resolution 3D point clouds and realistic 3D models of selected outcrops (Fig. 1). These new datasets were produced by capturing overlapping high-resolution photographs of a chosen

area during an automated flight plan using GSWA's Unmanned Aerial Vehicle (UAV), or drone, and then by processing the photos using photogrammetry software. These datasets have proven particularly useful in providing a new scale of observation, paramount to the multi-scale analysis of the orogen.

Data from the East Albany–Fraser Orogen GIS, 2020 can be viewed and downloaded via [GeoVIEW.WA](#). The standalone USB can be purchased from the Department of Mines, Industry Regulation and Safety (DMIRS) [eBookshop](#) or at the DMIRS first floor counter.

For more information, contact [Raphael Quentin de Gromard](#).

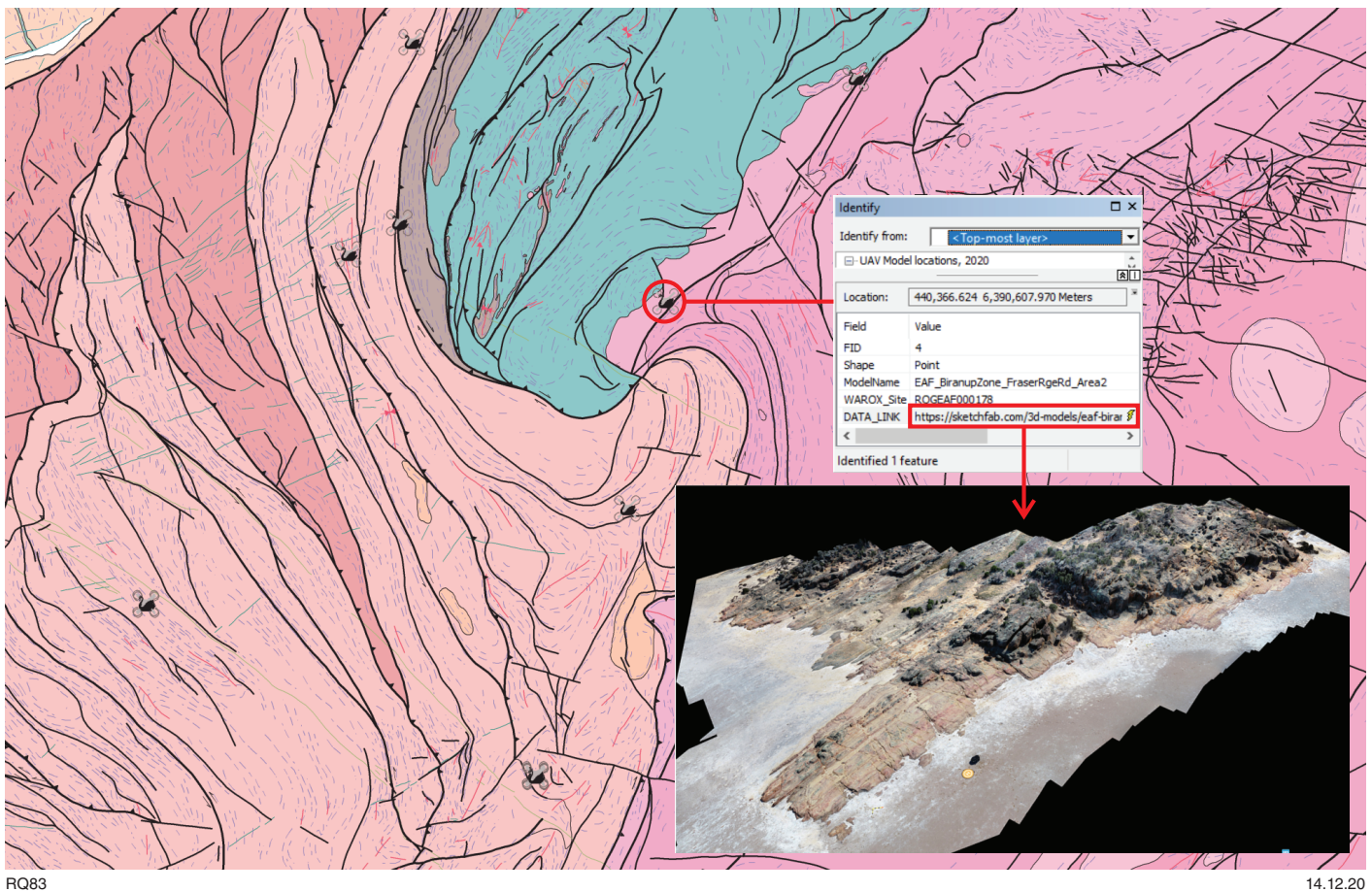


Figure 1. Extract of the 1: 100 000 pre-Carboniferous IBG layers showing the locations of drone-assisted 3D models of selected outcrops and example view into the online 3D viewer



## East Yilgarn 1:500 000 interpreted bedrock geology

The Eastern Goldfields Superterrane (EGST) comprises the eastern third of the Archean Yilgarn Craton and is widely considered a typical upper-crustal granite-greenstone terrane. This highly mineralized region contains world-class gold and nickel deposits, and significant deposits of other commodities including base metals, rare earth elements, lithium, uranium, gemstones and industrial minerals.

The EGST has been divided into four tectonostratigraphic terranes bounded by translithospheric structures; from west to east: the Kalgoorlie, Kurnalpi, Burtville and Yamarna Terranes. This present terrane configuration is traditionally interpreted to reflect accretion of a number of pre-existing 'continents' in a series of collisional events between c. 2800 and 2650 Ma. The effects that mantle plumes may have had on the magmatic stratigraphy of the greenstones is reflected by the local abundance of komatiites and associated basalts. However, systematic geological mapping and the acquisition of a substantial body of geochronological and geochemical data, indicate that evolutionary models involving rifting of an autochthonous basement also need to be (re)evaluated.

These different models can lead to different interpretations on the nature of magma source regions and the evolution of translithospheric structures that form pathways for mineralizing magmas and fluids.

A new addition to the East Yilgarn GIS, 2020 is the revised interpreted bedrock geology map of the EGST at 1:500 000 scale (Fig. 1). This major update was based on published 1:100 000 and 1:250 000 series geological maps, datasets from collaborative research projects, and recently acquired high-resolution geophysical data. The new 1:500 000 interpreted bedrock geology layers also incorporate the seamless bedrock stratigraphic interpretation, which has so far been completed between Agnew and Norseman at 1:100 000 scale.

**East Yilgarn 1:500 000 interpreted bedrock geology, 2020** is available to access from the Department of Mines, Industry Regulation and Safety (DMIRS) eBookshop.

For more information, contact **Jyotindra Sapkota**.

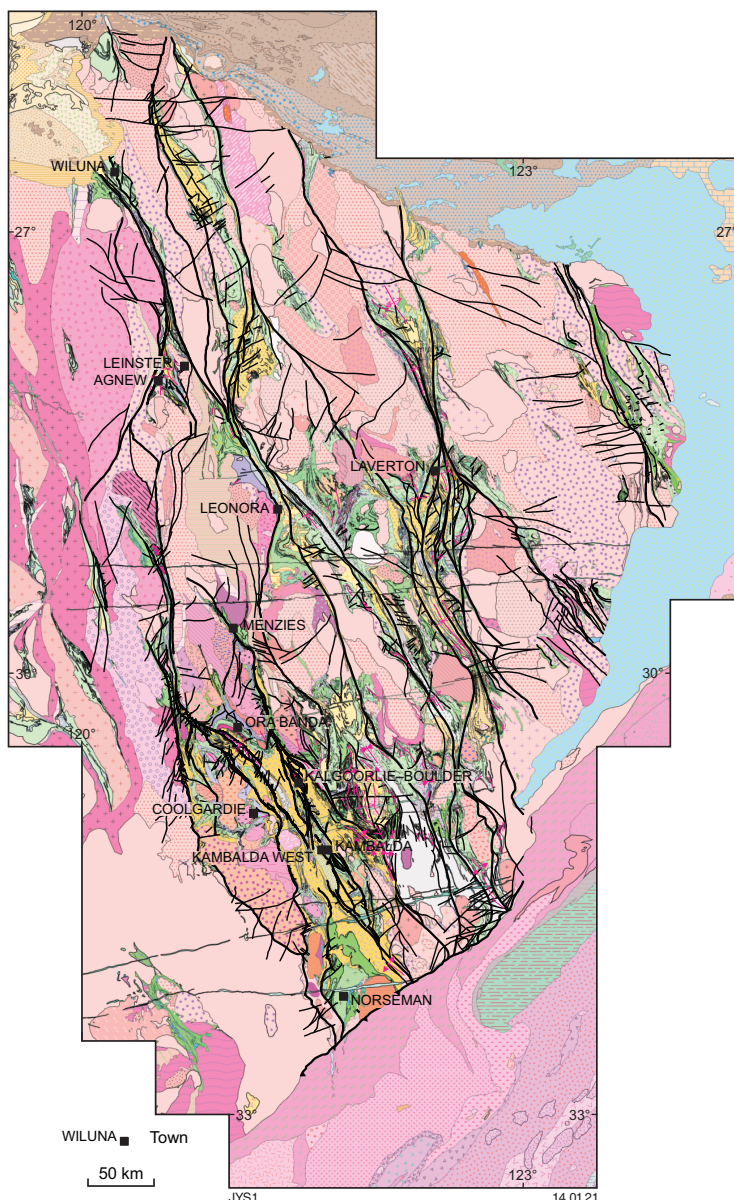


Figure 1. Bedrock geology of the Eastern Goldfields Superterrane interpreted at 1:500 000 scale

## New Proterozoic dolerite dyke suites in the Capricorn Orogen

Numerous dolerite dykes and sills intrude Proterozoic basement and cover rocks of the Capricorn Orogen, located between the Archean Pilbara and Yilgarn Cratons (Fig. 1). Recent Geological Survey of Western Australia (GSWA) fieldwork and analytical studies in the western part of the orogen have identified two new dyke suites, now assigned to the Minga and Kulkatharra Dolerites, in addition to dykes of the c. 755 Ma Mundine Well Dolerite.

**GSWA Record 2020/12** documents the petrography, geochronology, geochemistry, and isotope characteristics of all three dyke suites and their spatial and temporal relationships with previously recognized sills of the 1083–1075 Ma Kulkatharra and 1465–1450 Ma Narimbunna Dolerites.

Abundant dolerite dykes are spatially associated with Kulkatharra sills. The dykes and sills are similar mineralogically and geochemically, and U–Pb geochronology confirms that the two are contemporaneous, indicating that the dykes were feeders for the sills. Geochemistry suggests derivation of Kulkatharra Dolerite by extensive fractionation of either a slightly to moderately enriched mantle source or a relatively uncontaminated magma.

North-northwesterly trending Minga dykes in the westernmost Capricorn Orogen consist of strongly altered dolerite of high-Fe tholeiitic affinity, and are geochemically and petrogenetically

distinct from the Narimbunna Dolerite. Although Minga dykes have alteration and cursory geochemical similarities with Narimbunna sills, they are not spatially associated with the sills. Distinctive Sm–Nd isotope compositions and geochemical data suggest that the Minga dykes and Narimbunna sills formed independently, from compositionally distinctive source rocks and via contrasting petrogenetic processes. The Minga dykes represent mantle-derived magmas, with compositions that resemble E-MORB, and were continuously contaminated by assimilation of crustal material during emplacement.

The c. 755 Ma Mundine Well Dolerite consists of north- to northeasterly trending, quartz or olivine dolerite dykes, classified as subalkaline, high-Fe to high-Mg tholeiites, derived by fractionation of a slightly to moderately enriched mantle source or contamination by evolved or old crustal material.

**GSWA Record 2020/12 Proterozoic dolerite dykes in the western Capricorn Orogen, Western Australia** is available as a free downloadable PDF from the Department of Mines, Industry Regulation and Safety (DMIRS) eBookshop.

For more information, contact [Olga Blay](#).

Figure 1. Geology and principal structural elements of the western Capricorn Orogen, showing dolerite dyke sample locations

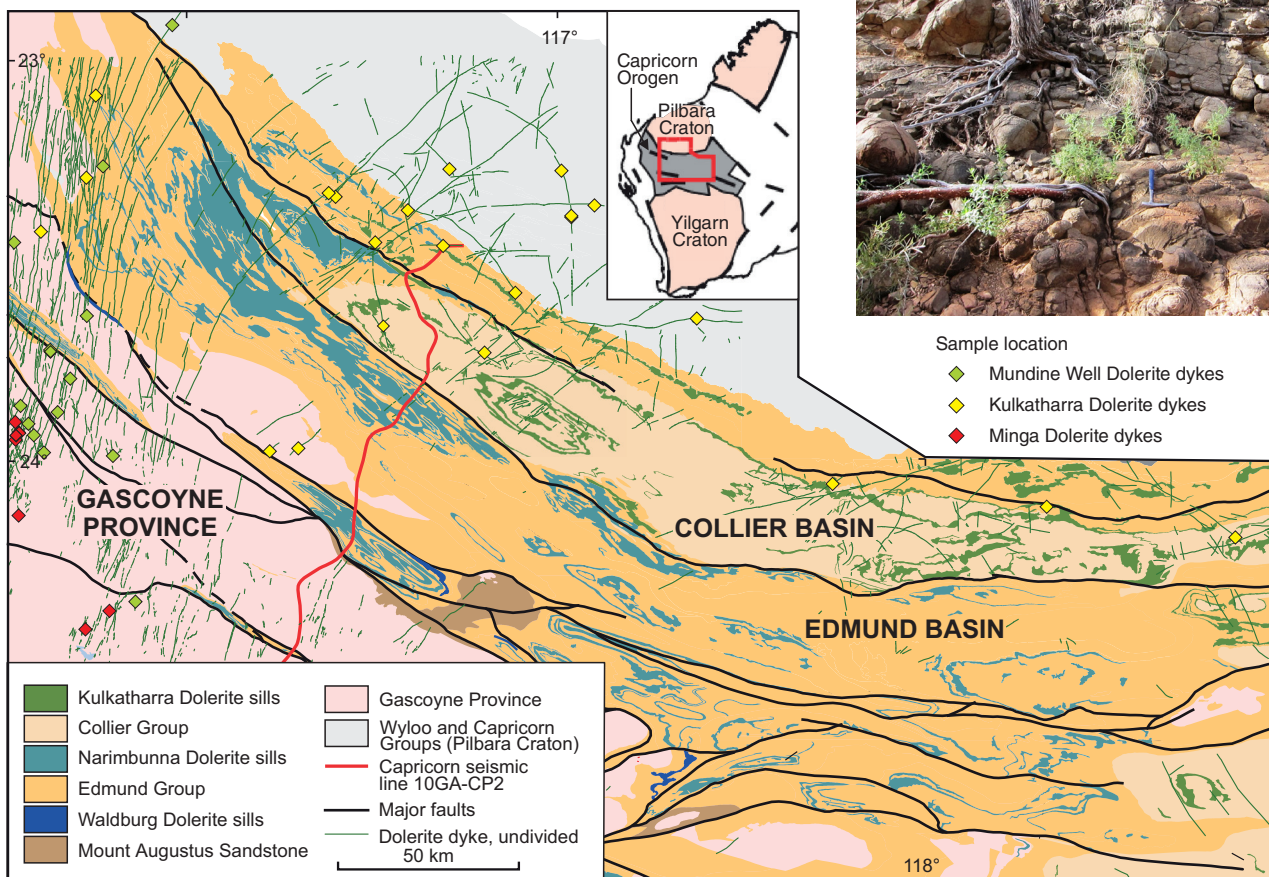


Figure 2. Outcrop image of Kulkatharra Dolerite dyke



Sample location  
◆ Mundine Well Dolerite dykes  
◆ Kulkatharra Dolerite dykes  
◆ Minga Dolerite dykes



## Syngenetic gold mineralization at Mount Clement

Gold and base metal deposits occur throughout the northern Capricorn Orogen of Western Australia, but apart from the hydrothermal gold deposits at Paulsens and Mount Olympus, their characteristics and ages are not known, and the metallogenic evolution, and hence prospectivity, of this region are consequently poorly understood. To rectify this, the Geological Survey of Western Australia (GSWA) is systematically examining other mineral deposits in the northern Capricorn Orogen, and has recently completed a study of the geological setting, mineralization style, and alteration mineralogy of the Mount Clement Au–Ag–Cu deposit. The results clarify the formation of this mineralization, but also reveal broader implications for the timing of mineralization and regional metallogenic events.

The Mount Clement deposit is hosted by the Paleoproterozoic Ashburton Formation (Wyloo Group). Mineralization comprises gold associated with Ag, As, Cu, Hg, Pb, Sb, U, W and Zn, disseminated through and mostly stratabound within a wedge of hydrothermally altered, fine-grained, siliciclastic metasedimentary rocks containing similarly stratabound intervals of chert and hydrothermal breccia. There is no major fault or shear zone controlling mineralization, but it has been locally modified by weathering.

The features of the Mount Clement deposit are collectively best explained as having formed in a hydrothermal exhalative (possibly subaqueous hot spring) environment, coevally with the deposition of the Ashburton Formation. The ages of the Ashburton Formation and Mount Clement mineralization are constrained by ages for a constituent volcanoclastic unit and the intrusive Boolaloo Granodiorite (Moorarie Supersuite) to be

between c. 1830 and 1795 Ma. The age of mineralization may be more tightly defined by c. 1806 Ma age for a crystal-vitric tuff occurring at a similar stratigraphic position. These ages are quite different to that for the Paulsens gold deposit, which first formed in quartz-sulfide veins at c. 2400 Ma, and was remobilized at c. 1730 and 1680 Ma, or the Mount Olympus gold deposit, which has an age of c. 1738 Ma.

The Ashburton Formation also hosts volcanic-hosted massive sulfides, Carlin-like and orogenic gold, and W-Mo skarn mineralization related to emplacement of Moorarie Supersuite granites at 1817–1773 Ma. Sedimentation and subsequent magmatism appear to overlap with the 1820–1770 Ma Capricorn Orogeny, suggesting that associated mineral deposits are coeval, and genetically associated, with this event. No regional mineralizing event has previously been associated with the Capricorn Orogeny, but might be expected given the common association of mineralization with regional tectonic events. The occurrence of a c.1800 Ma 'orogenic mineral system' then implies that there may be significant, as yet undiscovered, magmatic or metamorphic hydrothermal gold and/or base metal mineralization throughout the Wyloo Group (e.g. vein-hosted, disseminated sediment-hosted, and skarn-related mineralization).

**GSWA Report 209 Syngenetic gold mineralization at Mount Clement – an underexplored mineralization style in the northern Capricorn Orogen** is available as a free downloadable PDF from the Department of Mines, Industry Regulation and Safety (DMIRS) eBookshop.

For further information, contact **Josh Guilliamse**.

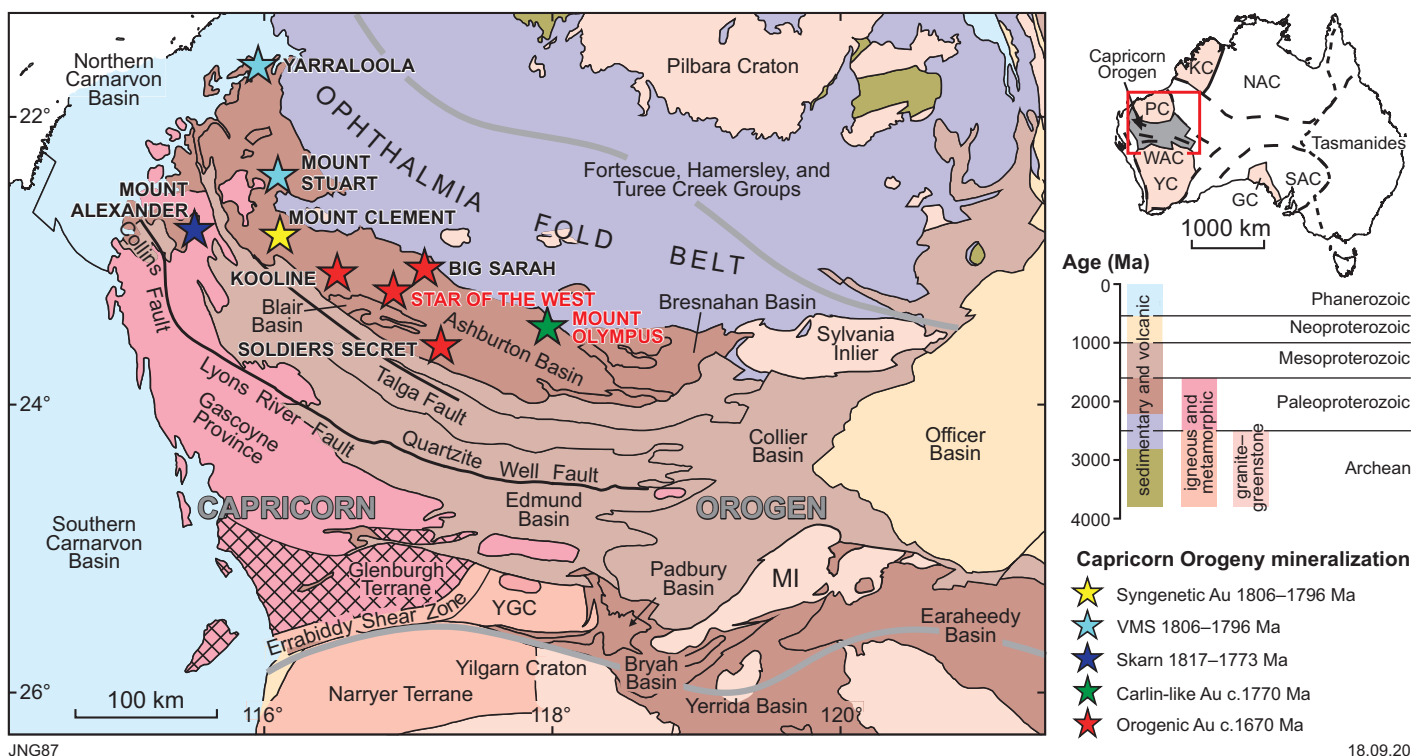


Figure 1. Map of the Capricorn Orogen showing the location of the Mount Clement deposit and other deposits of the Ashburton Basin. Abbreviations: GC, Gawler Craton; KC, Kimberley Craton; MI, Marymia Inlier; NAC, North Australian Craton; PC, Pilbara Craton; SAC, South Australian Craton; WAC, West Australian Craton; YC, Yilgarn Craton; YGC, Yarlalweel Gneiss Complex

## Geoheritage – expanding the picture

Western Australia's geological heritage is gaining greater attention through the release of a number of new reference products. The Geological Survey of Western Australia (GSWA) manages the State's Sites of Geological Significance (more commonly known as Geoheritage Sites) primarily through the use of the State Geoheritage Register, which currently consists of eight Geoheritage Reserves and 136 Geoheritage Sites. Locations identified as geologically significant are added to the Register, and this information is then used to maintain site integrity through education and land use planning processes. A program to visit and check the condition of all of the State's current Geoheritage Sites and Reserves is underway, with future plans to create a wider range of educational products from this data. Also planned is a program to expand the current register of Geoheritage Sites to include a wider variety of localities, particularly sites whose significance has only been recently identified.

To create more public awareness around Western Australian geoheritage, a pamphlet has been recently released that

highlights what we can all do to protect these important sites (Fig. 1). In addition, a Geoheritage data theme has now been added to GeoVIEW.WA (GSWA's online geospatial platform) that makes it easy for anyone to access information relevant to Geoheritage Sites (Fig. 2). Landowners, tourists, Local Government and State Government planners are encouraged to use GeoVIEW.WA to identify instances when their work might affect Geoheritage Sites, and to contact GSWA for advice on what activities are appropriate at individual sites.

More information on the State Geoheritage Register can be found on the **Department of Mines, Industry Regulation and Safety (DMIRS) website**, including links to the resources discussed here.

**A traveller's guide to Geoheritage in Western Australia** is available as a free downloadable PDF from the DMIRS eBookshop. The Geoheritage theme in GeoVIEW.WA is accessible through the DMIRS website.

For more information, contact the **geoheritage team**.

Figure 1. The newly released **A traveller's guide to Geoheritage in Western Australia** pamphlet

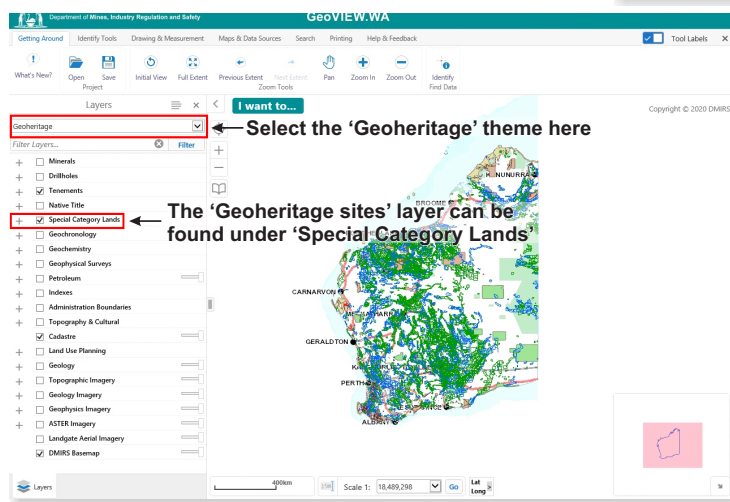
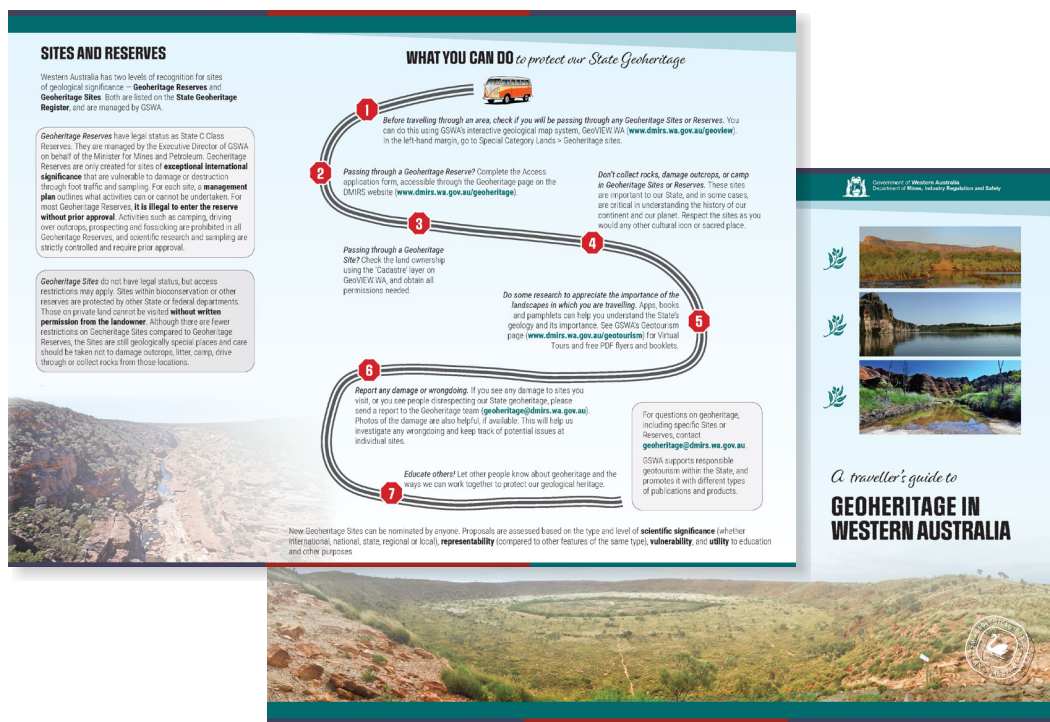


Figure 2. GeoVIEW.WA now has a Geoheritage theme that provides rapid access to all datasets relating to Geoheritage Sites and Reserves across the State



# Product releases

## • TEXT PUBLICATIONS •

### GSRS Annual Review 2019–20

**Record 2020/14 The utility of the metamorphic rock record: constraining the pressure–temperature–time conditions of metamorphism**

*by Korhonen, FJ, Kelsey, DE, Fielding, IOH and Romano, SS*

**Report 207 Mid-Carboniferous – Lower Permian palynology and stratigraphy, Canning Basin, Western Australia**

*by Backhouse, J and Mory, AJ*

**Report 210 Genetic and chemical characterisation of the host succession to the Archean Jaguar VHMS deposit**

*by Belford, SM*

**Report 212 Provenance fingerprinting of gold from the Kurnalpi goldfield**

*by Hancock, EA and Beardsmore, TJ*

**Compilation of HyLogger records, 2020 (Greenbushes)**

*by Hancock, EA and Wawryck, M*

**A traveller's guide to Geoheritage in Western Australia – brochure**

*by Martin, SK*

## • GEOLOGICAL INFORMATION SERIES •

### East Yilgarn, 2020

*by Sapkota, J*



## • 3D GEOMODELS •

### Eastern Yilgarn Craton 3D, 2019

*by Lindsay, MD, Spratt, J, Occhipinti, SA, Aitken, ARA, Dentith, MC, Shragge, J and Murdie RE*

## • POSTERS •

### Exploration and mining highlights, Western Australia

*by Sargent, SN, Wyche, NL, Jones, A, D'Ercole, C and Strong, CA*

### AusAEM20 and AusAEM20-WA

*by Hall, C*

## • COMMODITY FLYERS •

### Investment opportunities, Western Australia

*by Sargent, SN, D'Ercole, C, Strong, CA and Murray, SI*

**Gold | Diamond | Copper | Nickel–Cobalt | Rare Earth Elements | Vanadium | Manganese | Lithium | Titanium–Zircon | Lead | Tungsten | Graphite | Alumina–Bauxite | Iron ore | Phosphate | Potash | Antimony**

## Online systems and database information sessions 2021

**STAY  
ONLINE  
AND  
GET  
INFORMED**

**PERTH, 1 Adelaide Terrace – 9.30 am – 12 noon**

• **Monday 22 March, 14 June GeoMap.WA**

• **Tuesday 23 March, 15 June GeoVIEW.WA and TENGGRAPH Web**

• **Thursday 25 March, 17 June WAMEX (includes drillholes and geochemistry) and MINEDEX**

Navigate all our data including:

**eBookshop | Data and Software Centre | GeoVIEW.WA | GeoMap.WA  
TENGGRAPH Web | MINEDEX | WAMEX | Mineral drillholes and  
geochemistry databases | DMIRS website**

Sign up now for **FREE** interactive information sessions!

See our website for more details and to register:

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



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

Geological Survey of  
Western Australia

