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WA ranks as world's top investment destination

ROYALTIES FOR REGIONS
EXPLORATION INCENTIVE SCHEME

Western Australia has been identified as the world's top-rated jurisdiction for investment attractiveness in the Fraser Institute Survey of Mining Companies 2013 released on 5 March. Since 1997, the Fraser Institute, Canada's leading public policy think-tank, has conducted annual surveys of exploration and senior mining companies to identify the effects of public policies on mining investment in key global mining jurisdictions.

Originally covering only the Canadian provinces, the current survey now includes 112 jurisdictions.

Jurisdictions are generally assessed as whole countries, although Canada, Australia, the United States and Argentina are assessed on a state or province level (due to policy differences between jurisdictions within these countries).

This survey is sent to about 4000 mining and exploration companies worldwide. With a score of 85.3 out of a possible 100 in the survey's Investment Attractiveness Index, Western Australia ranked number one in the world (Fig. 1) over Nevada (84.2), and Newfoundland and Labrador (81.3). Australia's Northern Territory was ranked 17th with 74.7 out of a possible 100, followed by South Australia, 20 (73.8) and Queensland, 21 (73.5).

Western Australia also ranked second in the world in the Best Practices Mineral Potential Index and sixth in the Policy Perception Index. These two categories combined create the overall Investment Attractiveness Index category, weighted 60% for mineral potential and 40% for policy perception.

Our understanding of the geology of Western Australia, and therefore the perception of the State's prospectivity, has improved significantly due to the increase of geological, geochemical and geophysical information that is being made available by the Geological Survey of Western Australia (GSWA) funded by the Exploration Incentive Scheme (EIS). The EIS commenced in 2009 with six programs including the highly successful

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Figure 1. Investment Attractiveness Index. Source: www.fraserinstitute.org

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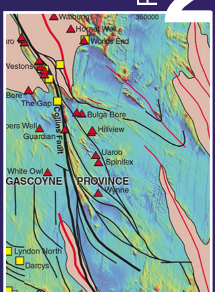

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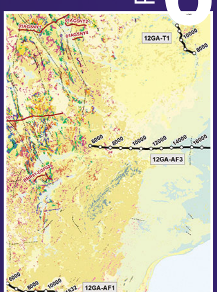

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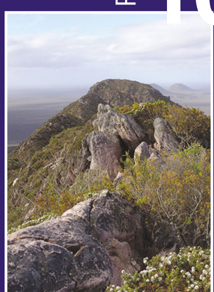

What's inside?

Shake, rattle and gold

The Capricorn Orogen is a 1000 km-long, 500 km-wide region of variably deformed meta-igneous and metasedimentary rocks located between the Pilbara and Yilgarn Cratons (Fig. 1). The orogen records the punctuated Paleoproterozoic assembly of the West Australian Craton during the 2215–2145 Ma Ophthalmian and 2005–1950 Ma Glenburgh Orogenies, as well as nearly two billion years of subsequent intraplate reworking. A recent old seismic reflection survey across the orogen has revealed the deep-crustal structure of the orogen, providing insights into the timing and style of both the collisional and subsequent continental reworking events.

The orogen hosts a variety of mineral deposit types — including orogenic lode-gold (e.g. Paulsens, Mount Olympus, Glenburgh and Star of Mangaroon) and base metals (e.g. Ashburton Downs, Abra and Glen Florrie) — the majority of which are located on, or close to, major lithospheric-scale structures. However, the timing and geological setting of the mineralizing events are poorly constrained, as is their relation to ?multiple movements on the major lithospheric structures and their splays. To increase the prospectivity of the region and provide explorers with a more focused set of exploration parameters, a better understanding of the structural evolution of the major lithospheric fault zones is required.

The Collins Fault is a major brittle–ductile structure that outcrops in the northern part of the Gascoyne Province (Fig. 1). The main fault zone is ~1 km wide, although associated brittle–ductile structures are developed at various scales up to ~30 km away from the main fault.

At the outcrop-scale the main fault zone, as well as the ancillary structures, are defined by thin, subparallel 'faults' 1–5 mm wide, which show millimetre- to centimetre- (and locally metre) scale offsets. Away from the main fault zone, different generations of ancillary faults are developed in various orientations, each set with opposing sinistral and dextral offsets. At some localities up to five different generations of faults are recorded. Most generations show evidence of early ductile deformation with a variably developed S–C fabric, which is overprinted by brittle deformation. Many of the faults are associated with en echelon quartz veins, some of which have been overprinted by successive periods of ductile and brittle deformation.

The textural evolution of these faults implies a rapid switch from a ductile to a brittle regime, most likely during an increase in strain rate and accompanying rock failure. The transition to a brittle regime would have been accompanied by massive energy release in the form of an earthquake.

Recent experiments have shown that significant amounts of gold can be precipitated during earthquakes (Weatherly and Henley, 2013). The rapid decrease in pressure within fault jogs during faulting and earthquake activity causes flash vaporization of fluid, and minerals (including gold) are rapidly precipitated, commonly as gold-bearing quartz veins. Weatherley and Henley (2013) also demonstrated that thousands of small earthquakes in a fault zone are more likely to form a large gold deposit than a single large earthquake.

The Collins Fault zone has great potential for gold and base metal mineralization as it shows evidence for cyclical faulting and earthquake activity, including the precipitation of fault-related quartz veins. Although no recent detailed geochemical investigations have been conducted on rocks within this zone, numerous gold and base metal prospects (e.g. Kimbers Well, Guardian, White Owl and Wynne) lie on, or close to, the Collins Fault zone (Fig. 1). Reconnaissance rock chip assaying by Resolute Ltd in the late 1990s (Keillor, 1996) returned anomalous gold and base metal results with up to 1090 ppb Au and 4% Cu at the Kimbers Well main prospect, 0.35 g/t Au and 2.5% Cu at the Guardian Prospect, and 0.15 g/t Au and 14.9% Cu at the White Owl prospect. At the time of assaying, the cause of these anomalies was not known and the tenements were subsequently surrendered.

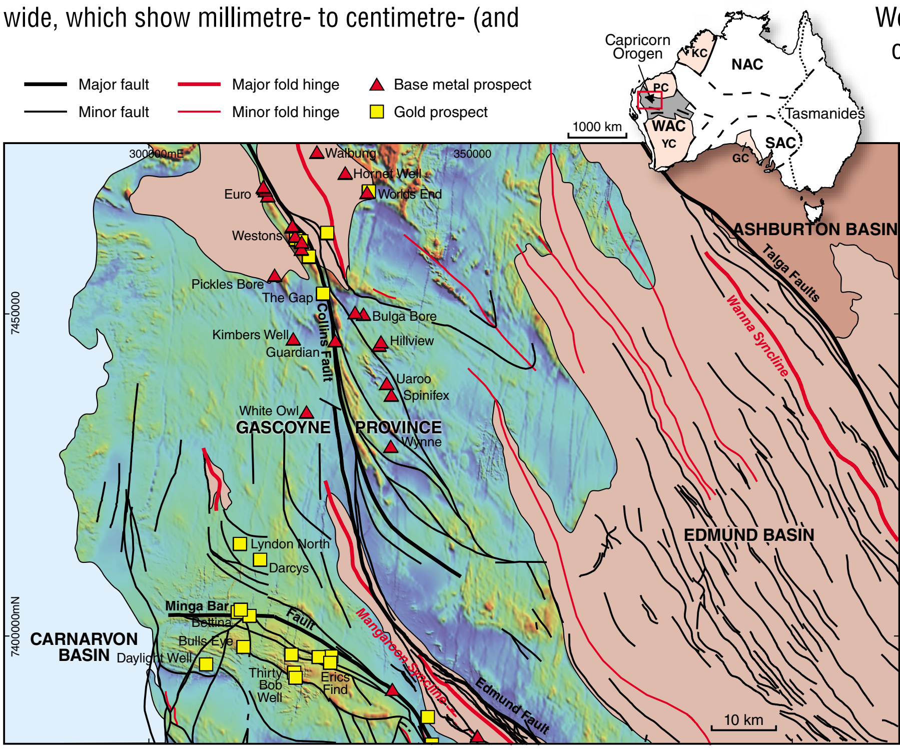

Figure 1. Total magnetic intensity aeromagnetic image of the northern Gascoyne Province showing the location of the major faults and folds, and gold and base metal deposits

References

Keillor, B 1996, Kimbers Well Project (E08/846, E08/847, E08/862, E08/863, E08/864); Annual Report; Resolute Ltd: Geological Survey of Western Australia, Statutory mineral exploration report, A49993 (unpublished).

Weatherly, DK and Henley, RW 2013, Flash vaporization during earthquakes evidenced by gold deposits: Nature Geoscience, v. 6, no. 4, p. 294–298.

For more information, contact Simon Johnson (simonpaul.johnson@dmp.wa.gov.au).

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Co-funded Exploration Drilling program and the Geophysics and Geochemical Surveys program. The latter program has seen the completion of medium-resolution airborne geophysical data surveys over the last 30% of Western Australia that had not previously been covered.

Western Australia's ranking in the Fraser Institute Survey has steadily and consistently improved since the start of the EIS in 2009 (Fig. 2). The survey can be regarded as an independent measure of the effectiveness and success of the EIS.

As well as the very positive impact of the vast quantity of geoscience information that has become available to explorers through EIS, policy changes in the regulation of the Mining Act in Western Australia have also been welcomed by the survey's respondents. These policies include the State's new Mining Rehabilitation Fund, which was identified as 'exemplary policy' in a statement attributed to an explorer.

In the composite Policy Perception Index, which is a 'report card' to governments on the attractiveness of their mining policies, Western Australia is now ranked in the top 10 with a ranking of 6th in the world, up from 15th in the previous survey, ahead of South Australia, at 11th ranking, and Northern Territory at 13th ranking.

The Best Practices Mineral Potential Index ranks a region's mineral potential with exploration investment potential,

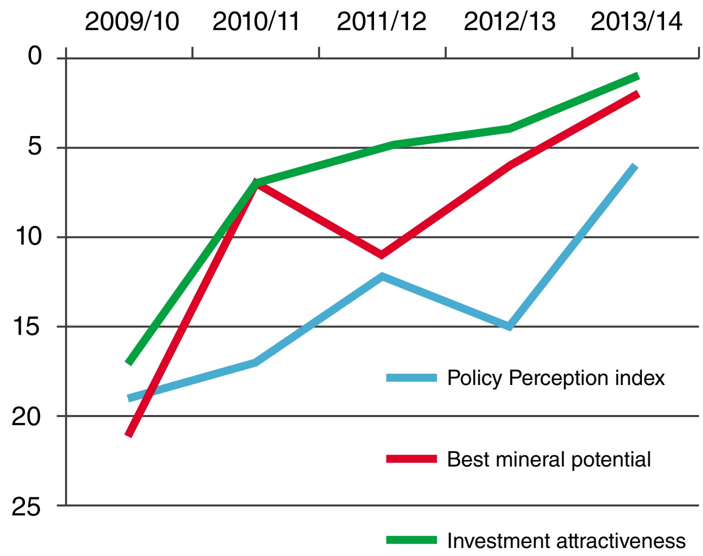

Figure 2. Fraser Institute ranking

independent of policy restrictions. In this category Western Australia and Nevada (0.82) were equal second to Alaska (0.83). The closest ranked Australian jurisdictions in this category were Queensland, 18th in the world (0.73) with Northern Territory, 24th (0.70).

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Old hydrogeology reports now available online

Hydrogeology reports produced by the Geological Survey of Western Australia (GSWA) are now available via the online product catalogue on the GSWA website at <www.dmp.wa.gov.au/GSWApublications>.

Starting in 1898, GSWA was involved in locating underground water sources for townsites and for farming, industrial and mining purposes. Results of many of the older investigations can be found in the annual reports and bulletins of the time. Between the 1950s and 1995, GSWA produced numerous reports on investigations and drilling carried out by GSWA. Of particular significance was the drought relief program in the 1970s and 1980s which offered government assistance to farmers by drilling for water on their properties.

Much of the core drilled by GSWA during this period is stored in the Perth and Kalgoorlie core libraries. The reports contain the logs and results of investigations.

In 1996 the hydrogeology team was transferred to the Department of Waters and Rivers (now the Department of Water) and no further reports were produced by GSWA.

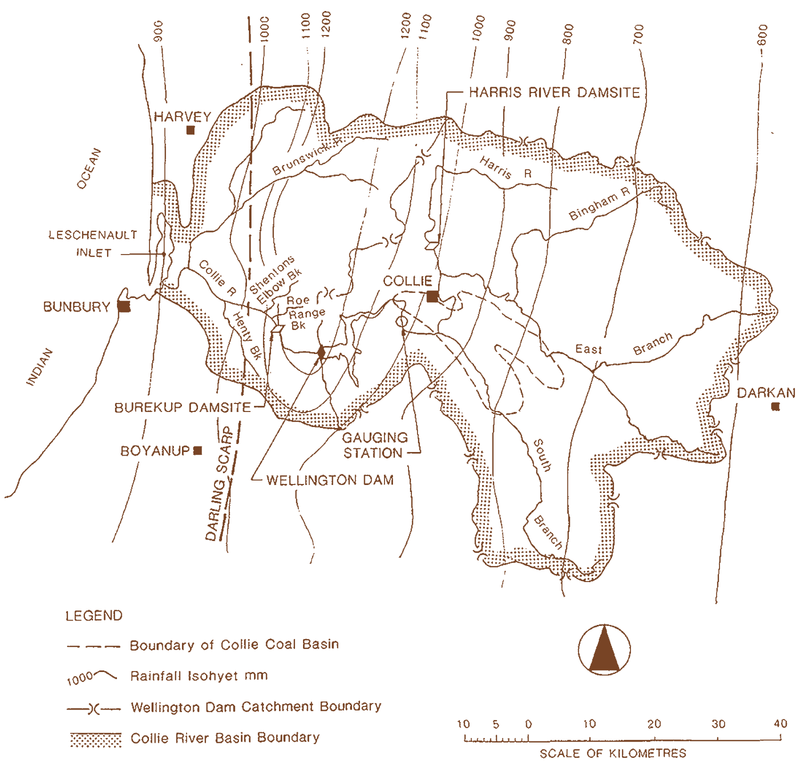

Figure 1. Graphic of Collie River Basin in one of the hydrogeology reports

Australia's geochemical database — the NGSA

The National Geochemical Survey of Australia (NGSA) produced the first Australia-wide multi-element geochemical database. It involved the collection and analysis of 1315 catchment outlet sediments at an average density of one site per 5200 km^2 of which 276 are located in Western Australia.

The assessment of low-density geochemical datasets for two sampling depths and two grain size fractions revealed that most samples from older cratonic and orogenic areas of Western Australia are composed of weathered silicate-rich material. In younger sedimentary basins samples are largely characterized by high carbonate contents and high pH, whereas the lowest pH corresponds to samples from the southwestern Yilgarn Craton. Samples from the lower part (60–80 cm) of the sediment profile have statistically higher silt and clay contents and in most cases, contain also the highest concentrations of silt and clay. Figure 1a shows a predictable distribution of nickel and its close spatial relationship to greenstone belts and known mineral deposits and prospects. However, the NGSA data also revealed several largely undocumented geochemical anomalies that are unrelated to known mineralization. These include anomalous lead (Fig. 1b) and rare earth element (REE) concentrations in salt lake samples throughout the central wheatbelt. These elevated concentrations are possibly associated with sulphates and clay minerals, and derived from metal-rich saline brines in the area.

The NGSA data also show that the gneiss-dominated South West Terrane of the Yilgarn Craton is geochemically distinct, based on higher alkalis (K and Na), REE and high-field strength element contents, from the greenstone-dominated terranes farther east, where NGSA samples indicate stronger ferro-alloy and chalcophile element signatures. Overall, the assessment of NGSA data shows that the geochemistry of low-density catchment outlet sediments can be used to highlight regional geochemical anomalies. The nature of these anomalies can be linked to the catchment geology and regolith, grain size and stratigraphy.

See Record 2013/4 The National Geochemical Survey of Australia — selected interpretations for Western Australian data by Scheib, AJ.

For more information, contact
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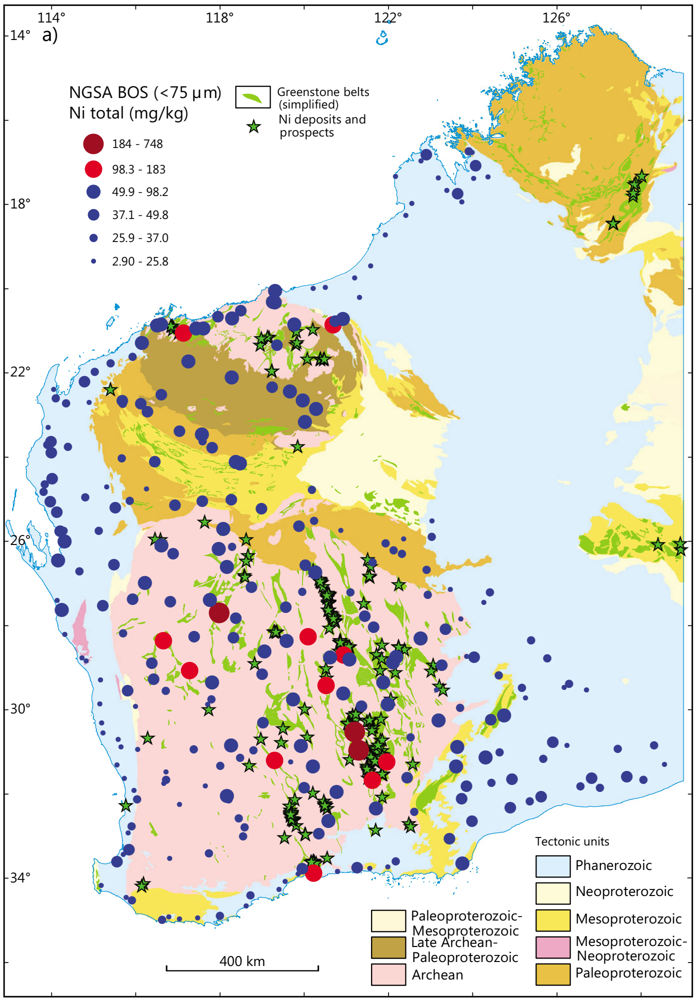

Figure 1a. A predictable distribution of nickel and its close spatial relationship to greenstone belts and known mineral deposits and prospects

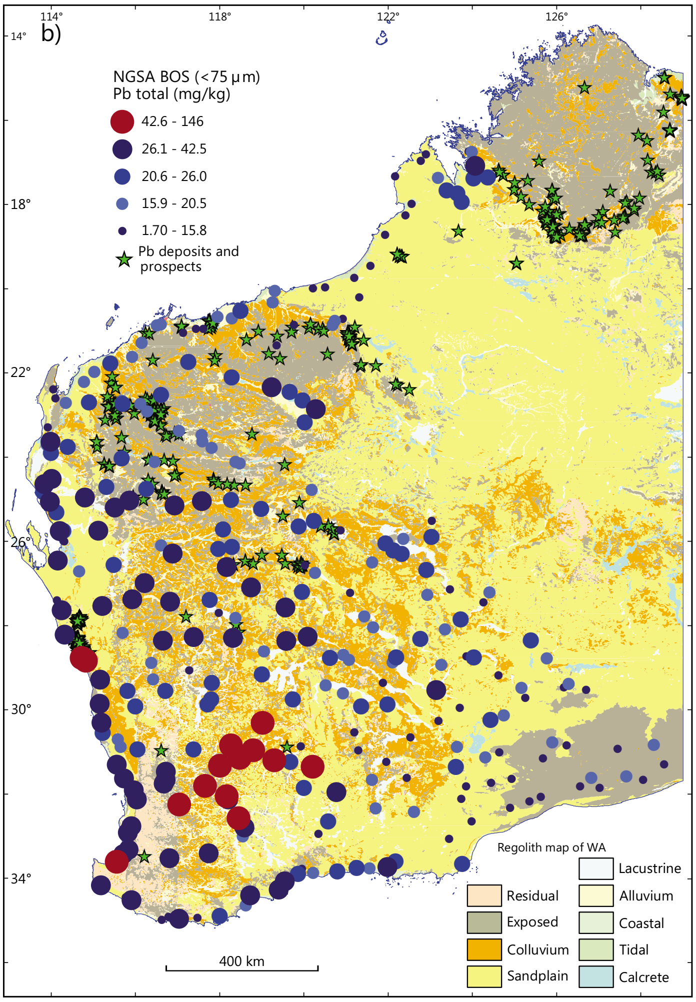

Figure 1b. Anomalous lead and rare earth element (REE) concentrations in salt lake samples throughout the central wheatbelt

The ironstone veins of the Gifford Creek Ferrocarbonatite Complex, Gascoyne Province

The Gifford Creek Ferrocarbonatite Complex comprises sills, dykes and veins of ferrocarbonatite, intruding granitic rocks of the Durlacher Supersuite and metasedimentary rocks of the Pooranoo Metamorphics in the Gascoyne Province.

The ferrocarbonatite intrusions have a general northwesterly trend, parallel with and adjacent to the Lyons River Fault. To the north of the Lyons River Fault, arcuate and sinuous veins of iron oxides (magnetite, hematite and goethite), generally referred to as ironstones, are distributed within a c. 25 x 25 km zone and were likely formed during postmagmatic alteration processes. Closer inspection of these ironstone veins shows that they have relic ferrocarbonatite margins, associated with wall rocks of fenitic character. These veins were formed from various alteration stages of the iron carbonates that dominate the original carbonatite material. The fenitic haloes are characterized by the presence of feldspars and/or Na-amphiboles and magnetite, as well as economically important minerals such as apatite, monazite, pyrochlore and columbite-tantalite group minerals.

Most mineral exploration in the area has focused on these ironstone veins, due to their gossan-like ‘high-visibility’. The ironstone veins were first explored for their rare earth element (REE) potential. Exploration efforts today are re-assessing the rare earth mineral potential of the ironstone veins as well as the ferrocarbonatite intrusions, in the light of current favourable economic trends for these critical metals.

The recently published GSWA Record 2013/12 integrates previous (published and unpublished) work on the nature of the ironstone veins and their wallrocks with new field observations, and analytical and petrological data, to develop a model that attempts to explain the evolutionary stages of the ironstone veins from the original ferrocarbonatite.

Following the publication of the GSWA Record, newly acquired age determinations were carried out on primary apatite from the Gifford ferrocarbonatites at the University of Notre Dame (Indiana, USA). The age of the apatite is c. 1075 Ma which, within error, coincides with the age of the Warakurna Large Igneous Province (WLIP), thereby furnishing for the first time evidence of carbonatite magmatism associated with the WLIP. Furthermore, this age suggests that other carbonatites may be present within the areas covered by the WLIP, a significant finding, due to the increasing importance of REE mineral systems related to carbonatites.

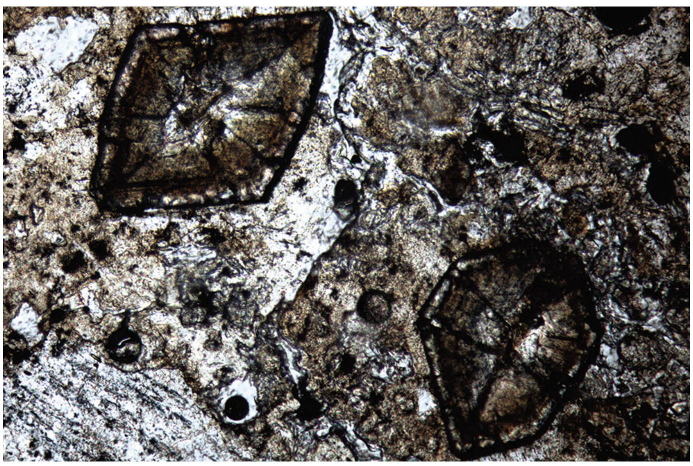

Figure 1. GSWA 186706, zoned pyrochlore in fenitic wallrocks of ironstone vein

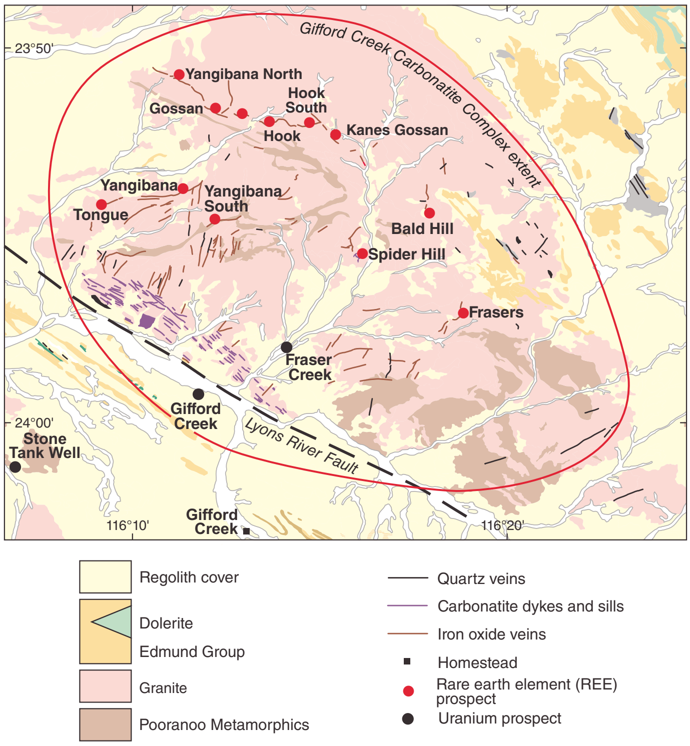

Figure 2. Simplified geological map of Gifford Creek Ferrocarbonatite Complex, showing ironstone veins, dykes and northwest-trending belt of ferrocarbonatite dykes and sills; also shown are the main REE prospects investigated by drilling

Figure 3. Typical outcrops of ironstone veins at the Tongue prospect

See Record 2013/12 The ironstone veins of the Gifford Creek ferrocarbonatite complex, Gascoyne Province by Pirajno, F and Gonzalez-Alvarez, I for further details.

For more information, contact
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Release of the Albany–Fraser Orogen deep crustal seismic refle preliminary migrated seismic line cross sections

The Albany–Fraser deep crustal seismic reflection survey was conducted across the southeastern margin of the Yilgarn Craton and the adjacent Albany–Fraser Orogen from April to June 2012. Funding for reflection seismic lines 12GA–AF1, 12GA–AF2 and 12GA–AF3, which were released on 21 February 2014, and for the regional MT survey carried out by the Centre for Exploration Targeting (CET), was provided by the Western Australian Government's Exploration Incentive Scheme (EIS), administered by the Geological Survey of Western Australia (GSWA) and funded from the Royalties for Regions program. Acquisition and processing has been managed by Geoscience Australia (GA) through the National Collaboration Framework. This activity, adding to a network of existing deep seismic traverses, improves the understanding of the crustal structure of Western Australia. Funding for seismic line 12GA–T1 across the Tropicana gold deposit, released on 9 April 2014, was provided by AngloGold Ashanti and Independence Group through ANSIR. Gravity stations at 400 m spacing were acquired on all four lines.

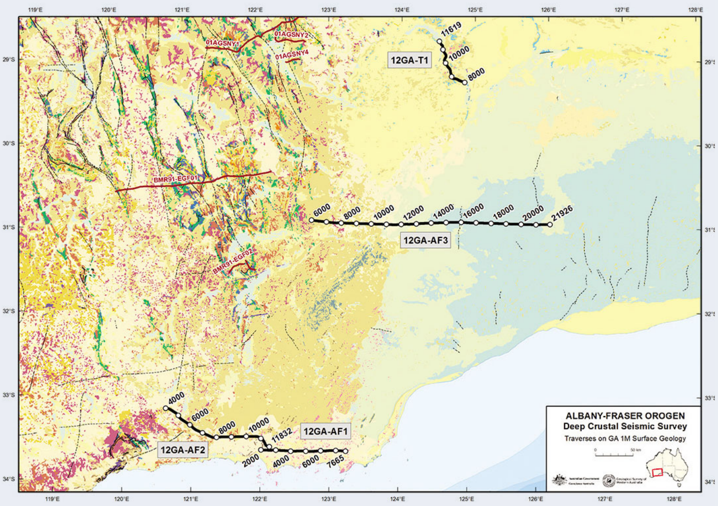

Figure 1. Common Depth Points (CDP) on GA 1:1 000 000 surface geology

The aim of the seismic lines was to:

- image the crustal architecture of the Archean Yilgarn Craton margin and its relationship to the Paleo- to Mesoproterozoic Albany–Fraser Orogen
- establish the subsurface extent of the Yilgarn Craton beneath the Albany–Fraser Orogen, and look for mantle-tapping structures that may have provided fluid pathways for mineralization. The seismic lines were designed to cross several major faults, including the Cundeelee Fault, the Fraser Fault, the Newman Shear Zone, the Red Island Shear Zone and the Rodona Shear Zone
- examine the deep crustal structure of the Albany–Fraser Orogen and investigate the tectonic processes that drove the development of the Yilgarn Craton margin from the Neoarchean through Paleoproterozoic rifting and magmatism to Mesoproterozoic tectonic assembly
- test models of fold and thrust belt architecture
- examine primary and structural relationships between geological and tectonic units mapped at the surface.

The data released comprises the preliminary migrated seismic line cross-sections, together with the ArcMAP GIS shape files of the seismic shot points and the common depth points (CDP) shown on the cross section images. The data can be downloaded from GSWA's website (www.dmp.wa.gov.au/19617.aspx) or from Geoscience Australia's website (www.ga.gov.au/metadata-gateway/metadata/record/78966).

For more information, contact
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or Ian Tyler (ian.tyler@dmp.wa.gov.au).

STOP PRESS!

Preliminary Abstract volume (GSWA Record 2014/6) and accompanying plates for Albany–Fraser seismic and magnetotelluric workshop released, including line 12GA–T1.

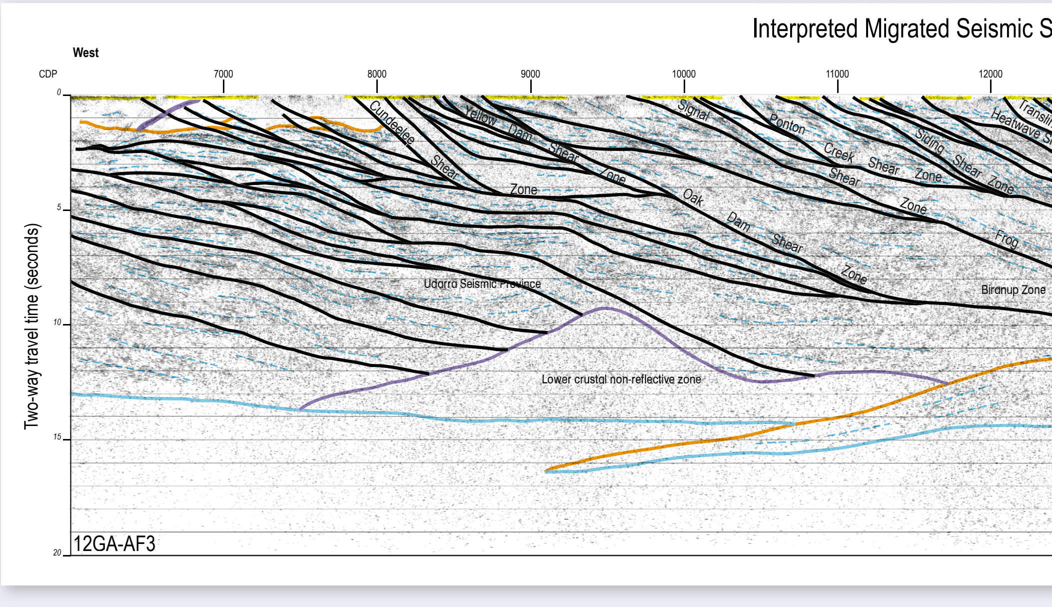

Figure 4. Preliminary migrated seismic line cross section 12GA–AF3

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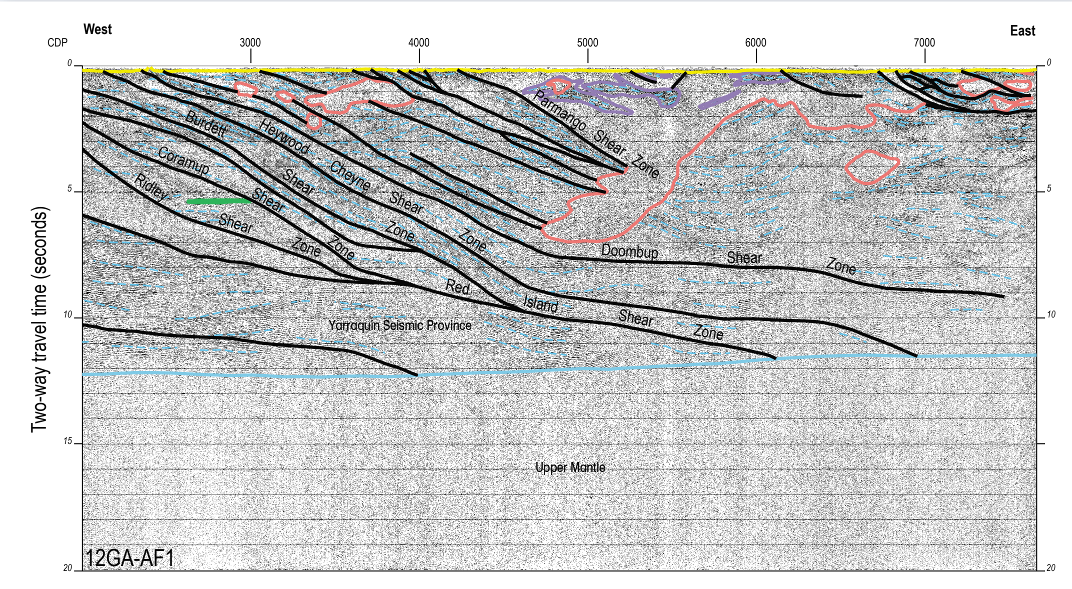
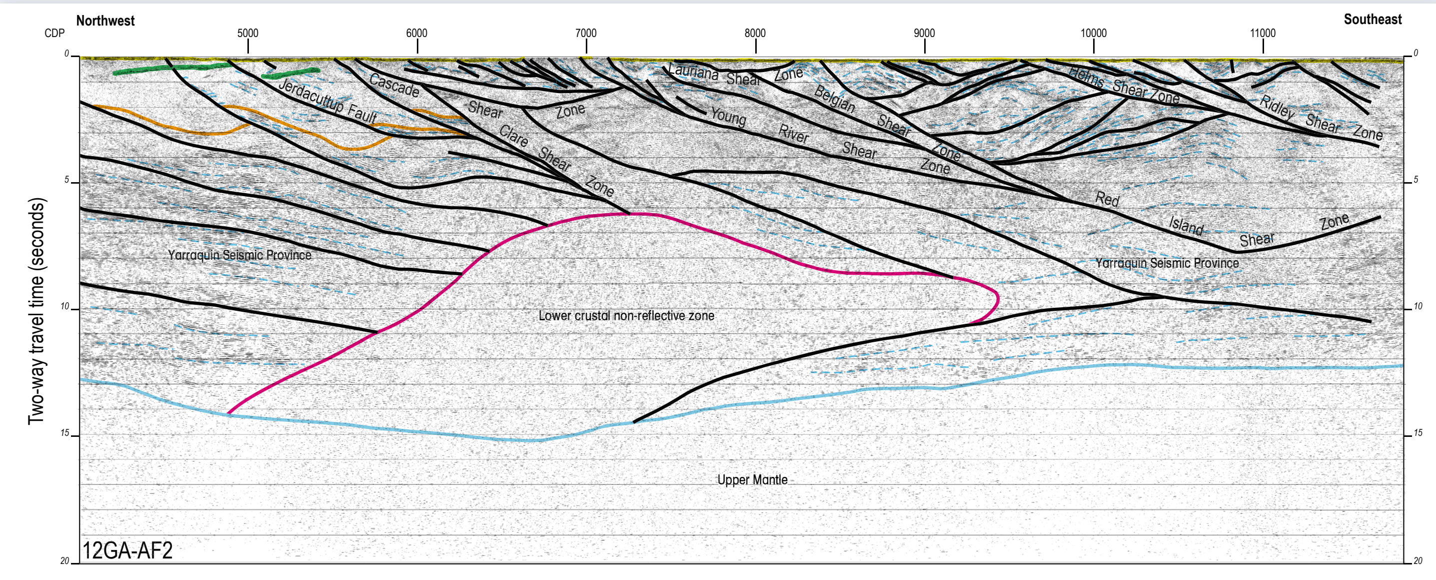


Figure 2. Preliminary migrated seismic line cross section 12GA–AF1

Figure 3. Preliminary migrated seismic line cross section 12GA–AF2



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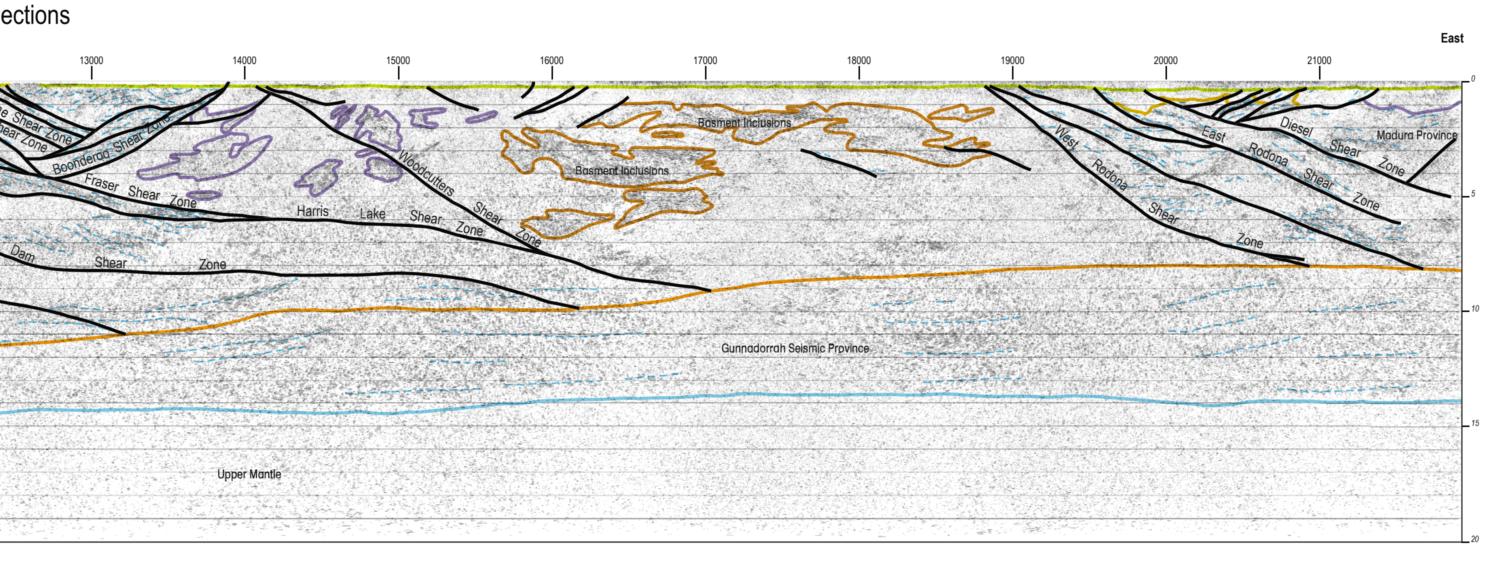

An integrated geological and geophysical study of the Gascoyne Province and its mineral prospectivity

ROYALTIES FOR REGIONS
EXPLORATION INCENTIVE SCHEME

Centre for EXPLORATION TARGETING

A new report by the Geological Survey of Western Australia (GSWA) in collaboration with the Centre for Exploration Targeting (CET) builds on the well-characterized geology of the Gascoyne Province. GSWA Report 123 3D architecture, structural evolution, and mineral prospectivity of the Gascoyne Province provides an interpretation of regional gravity and magnetic data that is used to emphasize the geological architecture of the province. Working on individual structural domains, structures have been attributed to discrete events and then assigned to one of eight tectonic events known to have affected the province. These provide an improved regional tectonic framework and characterized the extent of tectonic activity during different events. Combined gravity and magnetic modelling of a series of cross-sections (Fig. 1) have allowed the subsurface structure of the area to be constrained. Domain-bounding structures at the surface extend to mantle depths, and in several cases there

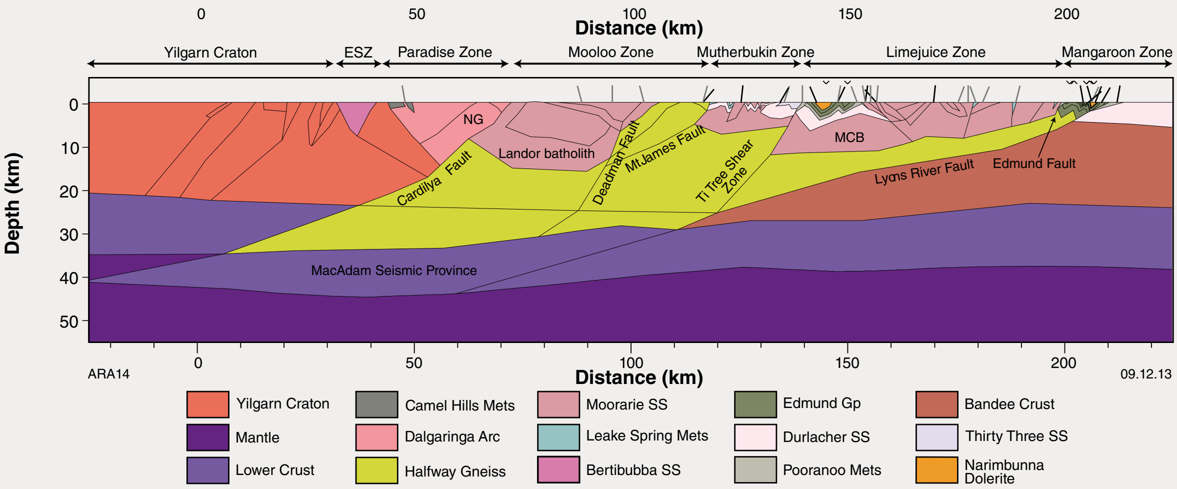

Figure 1. Combined gravity and magnetic model along Profile 2

are significant Moho offsets. These structures are boundaries to variations in lower-crustal character. Crustal-scale structure is characterized by primarily south-dipping structures as imaged in seismic reflection studies.

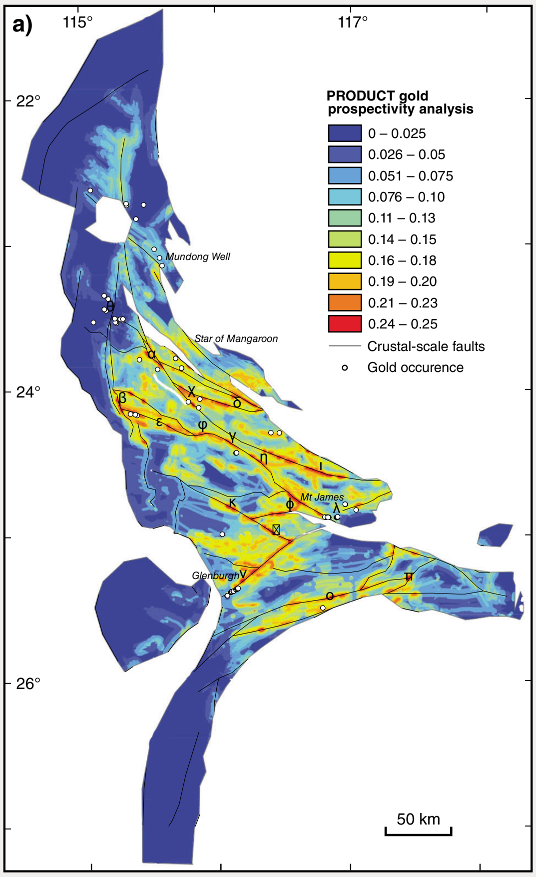

Figure 2. Fuzzy prospectivity model and zone of high fuzzy value for intrusion-related gold prospectivity analysis

Using this improved structural understanding of the Gascoyne Province, regional prospectivity analysis has been undertaken using a mineral systems approach. The Report utilizes a knowledge-based approach, with inputs determined by spatial mapping of geological proxies for favourable components of the mineral system. These are combined within a fuzzy-logic framework, with subjectively assigned weightings based on expert knowledge. Mineral systems considered are: 1) igneous and metamorphic-related rare earth elements (REE), 2) orogenic and intrusive gold, 3) surficial uranium, 4) porphyry base metal, 5) granite-related tin–tungsten (Sn–W).

The resulting maps show the spatial variations in geological characteristics considered favourable for each mineral system, and hence are indicators of relative variations in prospectivity. Prospectivity for the REE, gold and Sn–W deposit types is strongest in the central regions of the province (Fig. 2), perhaps reflecting the influence of a greater degree of intraplate reworking.

See GSWA Report 123 3D architecture, structural evolution, and mineral prospectivity of the Gascoyne Province by ARA Aitken, A Joly, MC Dentith, SP Johnson, AM Thorne and IM Tyler for details.

For more information, contact
Simon Johnson (simonpaul.johnson@dmp.wa.gov.au).

Mineral systems analysis of the west Musgrave Province

A new Report presents a multi-commodity prospectivity analysis of the west Musgrave Province. It is based on modelling by the Centre for Exploration Targeting (CET) at The University of Western Australia (UWA), of geological, geophysical and geochemical data collected by the Geological Survey of Western Australia (GSWA) during GSWA mapping programs. The datasets are used to create an interpretation of the 3D geometry and timing of major structures and architecture of subsurface stratigraphy. This is a critical component of the prospectivity analysis because major structures are believed to focus the flow of metal-bearing magmas and hydrothermal fluids. The majority of preserved major structures in the west Musgrave Province appear to have originated during the 1085–1040 Ma Giles Event, although many of these were subsequently reactivated during the Petermann and Alice Springs Orogenies. All primary and derived datasets are combined in a mineral system analysis which produces models that can be interrogated in a probabilistic framework. Knowledge-based, or 'fuzzy', logic models were then applied in a GIS framework to assess prospectivity. This GIS-based 'fuzzy' analysis is an attempt to translate the expert knowledge of the geology of a given region and mineral system into an automated approach where datasets can be systematically queried. It is the most suitable method of prospectivity analysis in regions with few or no known mineral occurrences. The analyses reported are specifically relevant to the west Musgrave Province, but the approach to mineral prospectivity analysis is potentially applicable to any greenfields area and can be tailored to suit specific commodities and geological parameters.

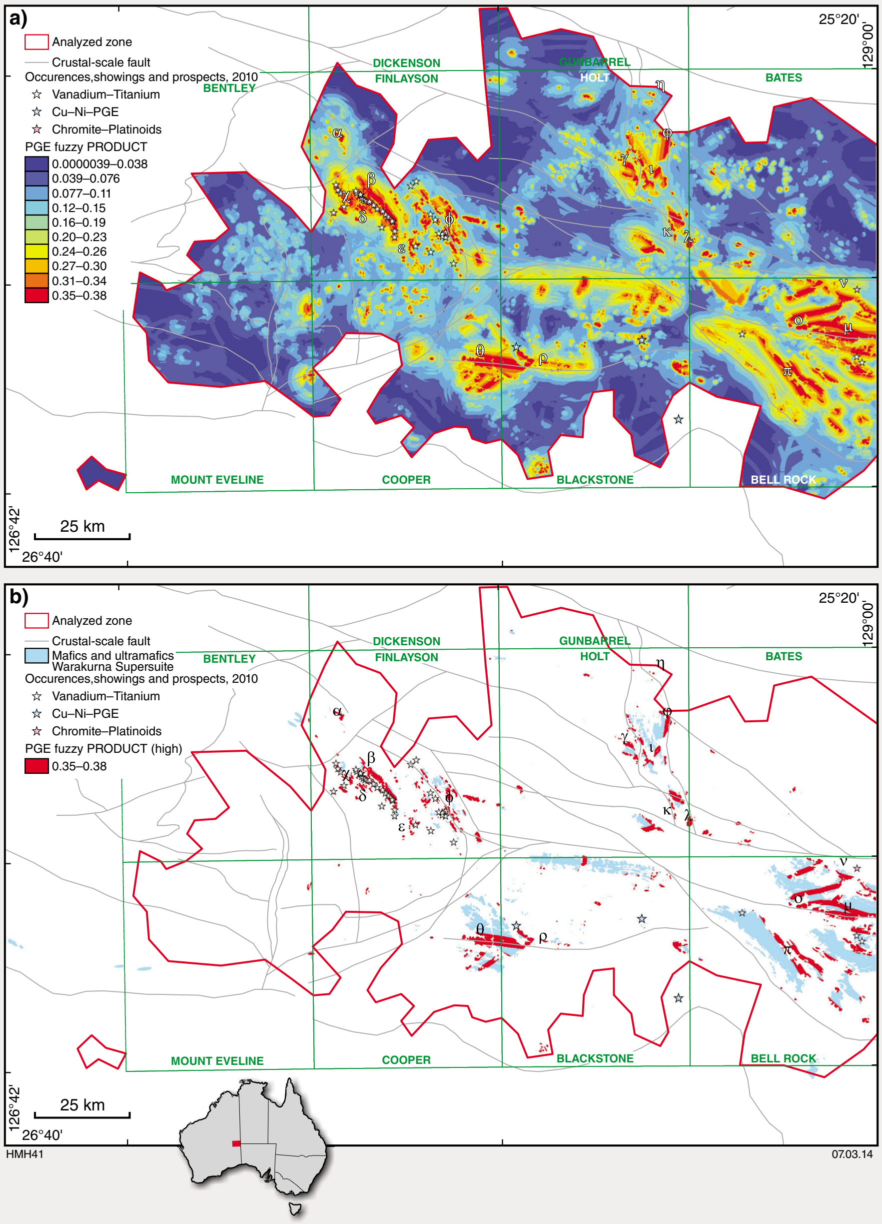

Figure 1. a) Fuzzy prospectivity model for magmatic PGE mineral system; b) zone of high fuzzy value for the magmatic PGE prospectivity analysis over the analysed area with even data coverage

The mineral prospectivity analysis was carried out for a range of commodities. The choice of commodities was based on the known prospectivity or endowment (i.e. known mineral deposits) of the west Musgrave Province and on perceived prospectivity based on interpreted geological and tectonic setting. The commodities and commodity styles include magmatic nickel–copper, magmatic platinum group elements (PGE), orogenic and intrusion-related gold, iron-oxide–copper–gold (IOCG), tin–tungsten, and surficial uranium mineral systems. The results suggest that the west Musgrave Province is particularly prospective for magmatic nickel–copper and PGE deposits (Fig. 1). The most favourable areas for magmatic Ni–Cu deposits are on the Finlayson and Holt 1:100 000 geological map sheets, whereas for the magmatic PGE deposits the most favourable area is on the Bell Rock map sheet. Favourable areas for intrusion-related gold mineralization occur mainly in the southern part of the Bentley map sheet and northern part of the Mount Eveline map sheet. The Cooper map sheet is most prospective for orogenic gold deposits, whereas the greatest potential for IOCG deposits lies in the Finlayson, Holt and Bell Rock map sheet areas. Greatest potential for tin and tungsten deposits is in the Blackstone and Bell Rock map sheet areas and surficial uranium targets are identified in the Blackstone map sheet area.

See Report 117 Mineral systems analysis of the west Musgrave Province: regional structure and prospectivity modelling by by A Joly, ARA Aitken, MC Dentith, A Porwall, RH Smithies and IM Tyler.

For more information, contact
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Sedimentological and structural evolution of the Mount Ragged Formation

Curtin University

The Mount Ragged Formation is located in the eastern Nornalup Zone of the Albany–Fraser Orogen. To characterize the sedimentological and structural development of the Mount Ragged Formation it was necessary to conduct geological field mapping, interpret aerial photography and aeromagnetic datasets, perform facies and sedimentary petrography analysis, perform structural analysis on field data, and compare Geological Survey of Western Australia (GSWA) WAROX field observations from rocks of the underlying Nornalup Zone in the vicinity of the Mount Ragged Formation. The sedimentary rocks of the Ragged Basin are considered to have been deposited within a shallow intracratonic basin by a large fluvial system dominated by a shifting complex of sandy braided channels. The gradual coarsening upwards sequence of lithofacies suggests the depositional setting was a distal fluvial environment characterized by channel migration and abandonment changing to a proximal fluvial environment characterized by rapid periods of sedimentation and coarser deposits. In view of the structural data and field observations presented in the new Report, and in conjunction with the interpretation of aeromagnetic imagery, the Mount Ragged Formation is interpreted to represent a zone where regional strain was partially accommodated through the deformation and subsequent emplacement of fault-bound metasedimentary packages. This is in contrast to the previous interpretation of an echelon pair of northeast-trending synclines.

Based on new geochronological age data obtained from U–Pb zircon analysis, the maximum deposition age of the protolith sediments for the Mount Ragged Formation is 1314 ± 19 Ma, which indicates deposition may have started during Stage I (1345–1260 Ma) of the Albany–Fraser Orogeny. New geochronological age data constrains the magmatic age of crystallization of the Scott Rock monzogranite to 1175 ± 12 Ma. The truncation of the Mount Ragged Formation by the Scott Rock monzogranite constrains the minimum age for the deposition of Ragged Basin sedimentary rocks.

Report 129 Sedimentological and structural evolution of the Mount Ragged Formation, Nornalup Zone, Albany–Fraser Orogen, Western Australia has recently been released and is a Master's thesis researched, written and compiled by P-J Waddell through an ongoing collaborative project between GSWA and Curtin University. The work was supervized by Dr Nick Timms (Curtin University) and overseen by Catherine Spaggiari at GSWA.

For more information, contact
Catherine Spaggiari (catherine.spaggiari@dmp.gov.au).

Figure 1. The prominent ridges of the Mount Ragged Formation protrude through the surrounding plain of Cape Arid National Park. Photo by Peter-Jon Waddell

GSWA regional geophysics surveys: March 2014 update

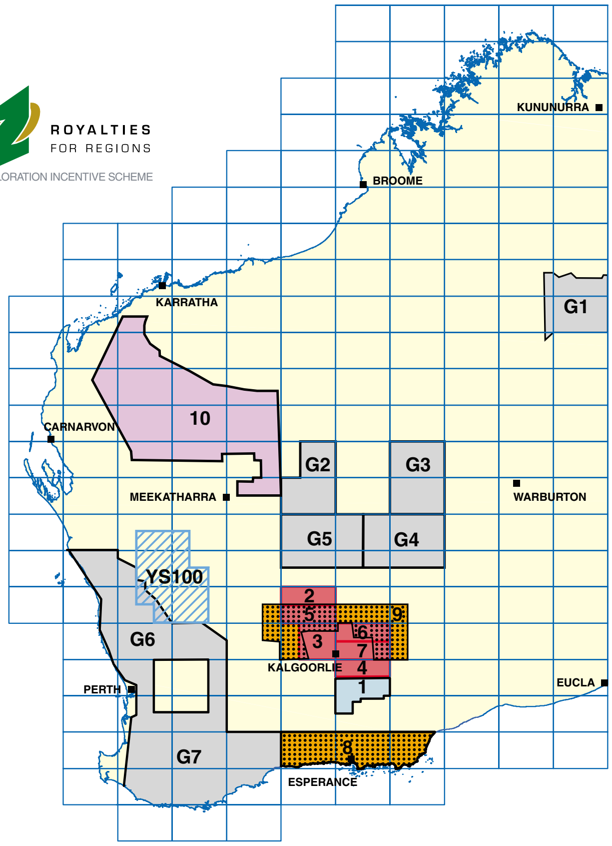
Data downloads

Final data releases from the Geophysical Archive Data Delivery System are at <www.ga.gov.au/gadds>.

Preliminary and final grids and images from the GSWA website are available from <www.dmp.wa.gov.au/geophysics>.

Subscribe to the GSWA eNewsletter for alerts of preliminary and final data release dates.

ROYALTIES FOR REGIONS
EXPLORATION INCENTIVE SCHEME



Committed program
Goldfields 100 m program

- Completed (2012–13)
- In progress (2013–14)
- Capricorn AEM survey 2013–14
- Ground gravity surveys 2013–14

Under consideration 2014–15

- G — Potential ground gravity survey blocks
- YS100: Yalgoo–Singleton 100 m airborne magnetic and radiometric survey program

For more information, contact
David Howard (david.howard@dmp.wa.gov.au).

Airborne magnetic and radiometric surveys

ID	Area/Name	Line spacing and direction	Line-km	Contractor	Acquisition Start	Acquisition End	Current Status	Release Status[1] & Date
	2012–13 Program							
1	Widgiemooltha South 2012	100 m E-W	131 000	Thomson	Nov-12	Apr-13	Released	F: 6-Jun-13
	2013–14 Program							
2	Menzies North 2013	100 m E-W	92 000	GPX	Aug-13	Nov-13	Released	F: 20-Feb-14
3	Kalgoorlie East 2013 [2]	100 m E-W	122 000	Thomson	Aug-13	Mar-14	Processing	Jun-14*
4	Widgiemooltha North 2013	100 m E-W	92 000	UTS	Aug-13	Jan-14	Processing	Apr-14*
5	Menzies South 2013	100 m E-W	92 000	GPX	Nov-13	Mar-14	Processing	Jun-14*
6	Kurnalpi North 2013 [2]	100 m E-W	92 000	Thomson	Oct-13	Mar-14	Processing	Jun-14*
7	Kurnalpi South 2014	100 m E-W	92 000	UTS	Jan-14	May-14*	Survey 38%	Jul-14*
	2014–15+ Program							
YS100	Yalgoo–Singleton greenstone belt	100 m E-W	Area under consideration for surveys in 2014–16					

Airborne reconnaissance EM surveys

ID	Area/Name	Line spacing and direction	Line-km	Contractor	Acquisition Start	Acquisition End	Current Status	Release Status[1] & Date
10	Capricorn 2013 (Tempest)	5 000 m; N/S (E/W in part)	29 000	CGG	Oct-13	Jan-14	Processing	May-14*

Ground gravity surveys

ID	Area/Name	Station spacing	Stations	Contractor	Acquisition Start	Acquisition End	Current Status	Release Status[1] & Date
8	Esperance 2013	2.5 km grid + 1 km road traverses	7 891	Atlas	Jul-13	Sep-13	Released	F: 24 Oct-13
9	Goldfields 2013	2.5 km grid	8 115	Atlas	Nov-13	Dec-13	Released	F: 20-Feb-14
Gx	Potential areas[3] under consideration for ground gravity surveys in 2014 and 2015				May 2014*		Quotation	

Notes

* Asterisk indicates an estimated date (month/year) based on latest information available. Subscribe to the newsletter for release alerts.

1. Release Status: F = final; P = preliminary. (Preliminary releases of partially processed or unchecked data are made on a case-by-case basis.)
2. Kalgoorlie East and Kurnalpi North surveys have been combined for acquisition efficiency.
3. Area selection to be determined depending on available budget and access to ground.

COLOUR LEGEND — **Final data released** — **Prelim release or Final release date set** — **In progress** — **Under consideration**

Information current at: 23 March 2014

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by Waddell, P-J

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- searching the mineral drillholes and geochemistry databases
- bringing it all together with the interactive map viewer, GeoVIEW.WA and GeoMap.WA, a standalone GIS viewer for Windows.

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PERTH

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- Thursday 30 October

KALGOORLIE

- Thursday 19 June
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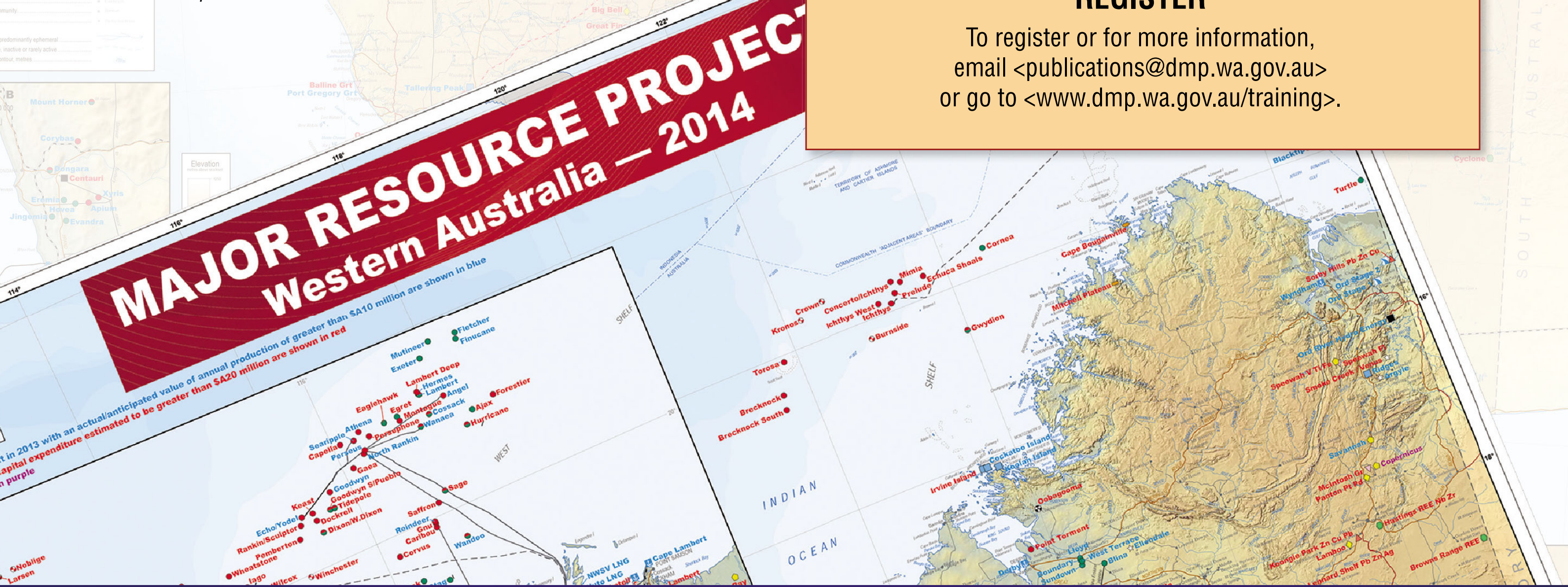

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