

Fieldnotes



Department of
Industry and Resources

Geological Survey of
Western Australia



Visit our Home Page at www.doir.wa.gov.au/GSWA

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GSWA geochemistry online (www.doir.wa.gov.au/geochem)

Geochemistry is an integral part of GSWA mapping and mineralization studies, as well as forming the core of project-specific exercises, such as the 1994–2001 regional regolith geochemistry program. The resulting multi-element analyses of rocks and regolith provide base level information for mineral exploration. The success of these data can be gauged by the significant tenement uptake following release of regional geochemical datasets in the State's southwest (Laterite Geochemical Database) and the west Arunta region.

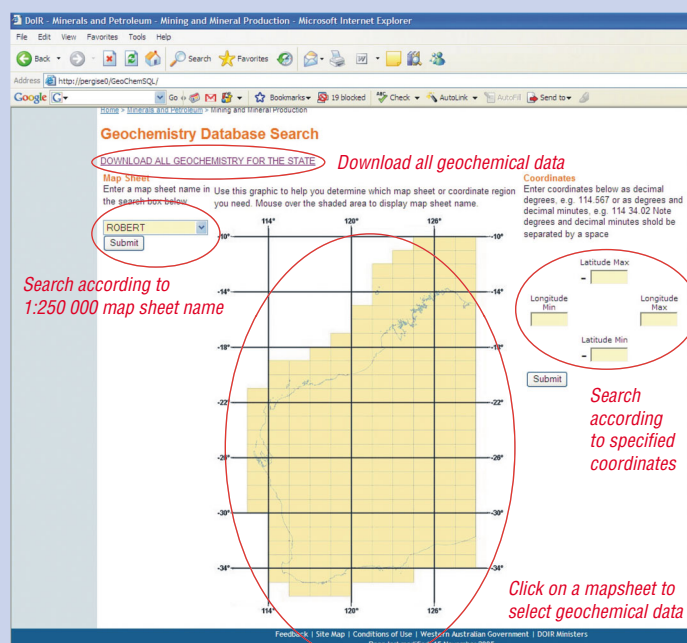
GSWA has made available a variety of data types (e.g. geophysics, geochronology, geological map information) in a digital format for download via a web interface. Geochemical data generated as a result of GSWA's field programs are also available, but in a variety of formats, and usually associated with specific GSWA products, or made available as data downloads from the web-hosted Datacentre. Through discussions with industry and GSWA staff, it became apparent that there was a need not only to provide geochemical data in a standard format, but also to provide related information on sample location and material type, how the sample was prepared for analysis, and under what conditions analysis was carried out. In addition to these factors, any database compilation had to account for analysis being carried out at a variety of government or commercial laboratories, with a correspondingly wide array of analytical techniques. These criteria formed the basis for the construction of GSWA's geochemical database, data from which are now available online.

In order to guarantee the integrity of geochemical data, individual data files have been imported using DataShed™ software. This approach means

that each file is checked for integrity in terms of formatting and content to ensure that data such as units of measurement, laboratory methods, and data type conform to pre-designated look-up tables. As minimum requirements for data to be imported, each analysis must have a recognised analytical unit, a lower level of detection, and a laboratory-attributed analytical method.

The database currently contains in excess of 14 000 geochemical analyses. Analyses can be accessed through either simple spatial searches (specifying bounding latitude and longitude, or through selection of individual 1:250 000 scale mapsheets) or downloading of the whole database (see figure). The comma-separated output format means the data can easily be incorporated into other databases or third-party software programs.

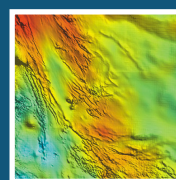
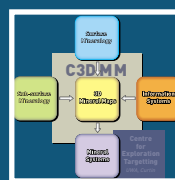
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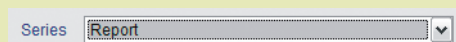
DigitalPaper

User tip #12

DigitalPaper was created to be simple and easy for any user to navigate from document to document. However, due to the large number of publications and the many different authors, titles and document types, it can sometimes be tricky to find what you want. Here are some tips to help you use DigitalPaper.

If you are searching for a series document which is ordered by number, such as a Report or a Record, search "Record" or "Report", and add the specific number of the document in the 'Series Number' field instead of by title or author. For example, when searching for Report 103 simply type '103' into the Series Number field and press Search; when searching for Record 2007/11, type '2007/11' into the Series Number field and press Search.

Instead of searching for the entire name of the document, try searching for key words in the Title field. For example, when searching for Report 103 Structural geology of the central part of the Lalla Rookh, type 'Lalla Rookh' in the Title field and press Search. This will find all of the documents with Lalla Rookh in the title; this search can be narrowed by selecting Report in the Series field.



If you are still unable to find the document, contact GSWA through the website <www.doir.wa.gov.au> to find out if the document has been released.

For more information, contact Ryan Aston (ryan.aston@doir.wa.gov.au).

July convention in Perth

Perth will be hosting the 2008 Australian Earth Sciences Convention in late July 2008. GSWA will have a significant scientific presence at the conference, and will be highlighting work by GSWA geoscientists and collaborators. GSWA is also sponsoring field guides and providing leadership for most of the field excursions before and after the conference.

Some excursions are tried and tested trips but others will showcase new work by GSWA and will take participants to previously unvisited regions and sites. Delegates can choose to:

- join one-day trips around the Perth metropolitan region
- visit Meckering, the site of a major earthquake in 1969
- tour of the mines and wine regions of southwestern Australia
- traverse the Pilbara Craton
- take a trip across the Yilgarn Craton from Kalgoorlie to west of Meekatharra
- visit the Proterozoic Halls Creek Orogen in the East Kimberley
- visit the Paleozoic rocks of the northern Canning Basin in the West Kimberley
- visit Shark Bay and the Zuytdorp Cliffs to learn about the quaternary geology and history.

For more information, email <aesc2008@iceaustralia.com> or visit the website at <www.iceaustralia.com/aesc2008>.

Record-breaking success for Perth petroleum conference

The Australian Petroleum Producers and Explorers Association (APPEA) April conference broke all attendance records in Perth showing that the resources boom is alive and well. The annual conference drew 2500 registrations from around the world and showcased 145 companies' products and services. The APPEA conference is the country's premier oil and gas conference. It is where players in the industry can seek farm-in opportunities, review other company's work, and keep abreast of developments by State, Territory and Commonwealth governments.

The Department of Industry and Resources (DoIR) exhibited its many services to both the upstream and downstream petroleum industry. New this year was the introduction of geothermal legislation and the State's first acreage release in the Perth Basin for geothermal energy. DoIR is focussed on industry using enhanced

geothermal systems based on hot dry rocks, which, if successful, will help diversify the State's base electricity generation.

The conference also reflected the worldwide trend by industry towards unconventional petroleum resources such as 'tight' gas, coal-seam methane and exploration in deeper waters.

The 2009 APPEA conference will be held in Darwin.

For more information, contact Jeff Haworth (jeffrey.haworth@doir.wa.gov.au).





GSWA geochemistry online

continued from page 1

Download as Comma Separated Values (CSV)

Downloaded as Comima Separated Values (CSV)																									
DataSet	SampleID	GSWANO	Extraction Date	Batch No	QMAPID	DLat	DLong	EASTING	NORTHING	RELIABILITY	SAMPLETYPE	LITHNAME	SITENO	SITEID	ORIGIN	Au ppm	Al ppm	Al2O3 pct	Ars ppm	Au ppm	B ppm	Be ppm	Bi ppm	C ppm	Ca ppm
WACHEM	171792_C1M3SU	171792	27/04/2008 6:26:56 AM	21800020401	SGS1-10	-26.57081	122.97791	497800	7061100	Within10	Unknown	Gossan	167497	FXP/VR 013	Pirajno F.	0.20	0.00	0.00	897.00	0.00	0.00	0.00	0.00	0.00	0.00
WACHEM	180573_CUMUSU	180573	27/04/2008 6:26:56 AM	21800030107	SGS1-10	-26.28155	122.88010	488030	7093130	Unknown	Metadeta - an analysed sample	sandstone	195524	FXPCAR 055	Pirajno F.	0.00	0.00	0.00	5.00	0.00	0.00	197.00	0.00	0.00	0.00
WACHEM	186699_C1M3SU	186699	27/04/2008 6:26:56 AM	21800601748	SGS1-10	-26.42186	122.18083	418313	7077337	Within10		sedimentary rock	217183	JA3WIND474	Jones J.A.	0.00	0.00	0.00	10.00	0.00	0.00	410.00	0.00	0.00	0.00
WACHEM	186700_C1M3SU	186700	27/04/2008 6:26:56 AM	21800601748	SGS1-10	-26.40486	122.02259	402518	7079109	Within10	sedimentary rock	217177	JA3WIND468	Jones J.A.	0.10	0.00	0.00	4.00	0.00	0.00	154.00	0.00	0.00	0.00	
WACHEM	180527_CUMUSU	180527	27/04/2008 6:26:56 AM	21800030393	SGS1-10	-26.01163	122.64414	464390	7122980	Unknown	Gossan	187211	FXPCAR 011	Pirajno F.	0.00	0.00	0.00	182.00	0.00	0.00	1031.90	0.00	0.00	0.00	
WACHEM	132500B_C3M1SU	132500	27/04/2008 6:26:56 AM	S200216	SGS1-10	-26.61846	122.91984	492020	7055820	Within10	dolerite	88597	FXP/VR001	Pirajno F.	0.04	0.00	13.10	1.80	0.00	0.00	506.00	1.00	0.00	0.00	
WACHEM	171705_C3M1SU	171705	27/04/2008 6:26:56 AM	S200216	SGS1-10	-26.36985	122.61669	461760	7083300	Unknown	dolerite	88598	FXPCAR 001	Pirajno F.	0.03	0.00	13.10	2.10	0.00	0.00	585.00	1.30	0.00	0.00	
WACHEM	171707A_C3M1SU	171707	27/04/2008 6:26:56 AM	S200216	SGS1-10	-26.37728	122.65092	465177	7082487	Unknown	dolerite	268029	PAM171707A	Morris P.A.	0.03	0.00	13.17	1.80	0.00	0.00	590.00	1.10	0.00	0.00	
WACHEM	171707B_C3M1SU	171707	27/04/2008 6:26:56 AM	S200216	SGS1-10	-26.37728	122.65092	465177	7082487	Unknown	dolerite	268830	PAM171707B	Morris P.A.	0.06	0.00	13.02	1.10	0.00	0.00	597.00	1.10	0.00	0.00	
WACHEM	171709_C3M1SU	171709	27/04/2008 6:26:56 AM	S200216	SGS1-10	-26.38099	122.63058	463150	7082080	Unknown	dolerite	88602	FXPCAR 010	Pirajno F.	0.03	0.00	13.28	1.80	0.00	0.00	625.00	1.20	0.00	0.00	

Flat file extract of data from KINGSTON 1:250 000 map sheet

For search and download purposes, the geochemical data are matched to related metadata (such as sample location and rock type) held in GSWA's internal rock database, using the GSWA sample number. The expansion of data available for download results from both the addition of new geochemical data, and the continual revision of existing rock data and addition of new data. The application of set criteria for uploading of geochemical data (e.g. recognised analytical technique, unit of measurement, lower level of detection) means that some geochemical data do not meet the mandatory minimum requirements; similarly, metadata to locate the sample or indicate its composition are occasionally not available. In both these cases, the data are not made available for download.

A refinement to the DataShed™ software requested by GSWA for the geochemistry database is the attachment of an acronym of the form CxMySz to the

GSWA sample number, which provides information on pre-analysis preparation in terms of crushing, screening, and milling. This is crucial information when dealing with increasingly sensitive methods for measurement of such elements as platinum and palladium.

Included with the results of any spatial search (see figure above) is the laboratory batch number for each analysis, which is hyperlinked, allowing the downloading of batch information. The batch data (see figure below) provide information on the unit of measurement, lower level of detection, and analytical technique, as well as any batch-related quality control data (e.g. analysis of duplicates or standards). Included with each data download are tables of participating laboratories, and explanations of the various laboratory-specific analytical codes. Through a series of automatic procedures, the database is updated daily to incorporate any new data uploaded in the previous 24 hours; the date of extraction in the output provides the currency of the extracted information, meaning that newly added data can be easily identified.

SWA Number	Extraction Date	LithName	LL_LAT	LL_LONG	MGA_EAST	MGA_NORTH	Reliability	Site Number	Originator	METHOD	UNIT	DETECTION	XRF	XRF	XRF	TITR	CALC
132497	18/02/2008	dolerite	-26.54932	123.00301	500300	7063480	Unknown	88596	Pirajno F.	52.01	1.889	13.049	12	1.881			
132498	18/02/2008	dolerite	-26.54932	123.00301	500300	7063480	Unknown	88596	Pirajno F.	53.03	2.021	13.263	6.16	7.495			
132500	18/02/2008	dolerite	-26.51846	122.91984	492020	7055820	Within 10m	88597	Pirajno F.	51.68	2	13.103	10.35	3.690			
165366	18/02/2008	basalt	-28.07123	119.22953	719100	6892900	Unknown	90872	Chen S.F.	45.22	1.333	13.033	9.48	1.13			
165367	18/02/2008	ultramafic schist, volcanic or undivided	-28.0721	119.23158	719300	6892800	Unknown	90873	Chen S.F.	50.71	0.725	8.993	8.44	9.931			
165368	18/02/2008	dolerite	-28.12539	119.28358	724300	6898800	Unknown	90874	Chen S.F.	50.73	0.457	13.083	4.86	6.649			
165369	18/02/2008	komatiite	-28.09782	119.31352	727300	6898900	Unknown	90875	Chen S.F.	45.85	0.592	7.511	7.08	5.304			
165370	18/02/2008	meta-ultramafic rock	-28.12162	119.29266	725200	6887200	Unknown	90876	Chen S.F.	51.38	0.248	4.842	3.75	5.071			
165371	18/02/2008	meta-ultramafic rock	-28.11786	119.30173	726100	6887600	Unknown	90877	Chen S.F.	48.48	0.663	7.378	2.54	10.327			
165372	18/02/2008	komatiite	-28.12773	119.30988	726900	6887600	Unknown	90878	Chen S.F.	47.39	0.424	5.372	1.5	10.089			
165373	18/02/2008	komatiite	-28.04807	119.32571	728700	6895200	Unknown	90879	Chen S.F.	47.72	0.617	7.454	6.91	4.336			
165374	18/02/2008	meta-ultramafic rock	-28.07056	119.37702	739600	6892700	Unknown	90880	Chen S.F.	45.86	0.555	7.121	3.17	9.522			
165375	18/02/2008	komatiite	-28.12333	119.35172	731000	6889900	Unknown	90881	Chen S.F.	48.03	0.545	6.26	3.24	7.879			
165376	18/02/2008	komatiite	-28.12229	119.35984	731800	6887000	Unknown	90882	Chen S.F.	44.97	0.551	7.302	6.76	4.137			
165377	18/02/2008	meta-ultramafic rock	-28.12781	119.32802	728640	6889340	Unknown	190064	Chen S.F.	49.86	0.448	5.818	3.71	7.948			
165378	18/02/2008	komatiite	-28.15672	119.42921	738540	6883050	Unknown	90883	Chen S.F.	44.33	0.285	7.329	5.34	3.998			
165379	18/02/2008	komatiite	-28.16444	119.42993	738200	6882200	Unknown	90884	Chen S.F.	46.78	0.307	8.184	2.98	6.793			
165380	18/02/2008	komatiite	-28.16334	119.43751	738500	6882300	Unknown	90885	Chen S.F.	48.32	0.402	8.858	1.72	7.286			
165381	18/02/2008	komatiite	-28.18915	119.45703	741200	6879400	Unknown	90886	Chen S.F.	45.68	0.323	7.748	8.31	1.952			
165382	18/02/2008	meta-ultramafic rock	-28.18008	119.46617	742100	6879500	Unknown	90887	Chen S.F.	48.37	0.344	7.296	6.76	3.622			
165383	18/02/2008	komatiitic basalt	-28.16659	119.40663	736300	6892000	Unknown	90888	Chen S.F.	50.62	0.92	7.412	7.36	4.573			
165384	18/02/2008	komatiite	-28.16754	119.40359	736000	6891900	Unknown	90889	Chen S.F.	47.54	0.288	6.034	5.73	2.931			
165385	18/02/2008	komatiite	-28.1571	119.43288	738900	6883000	Unknown	90891	Chen S.F.	45.66	0.39	7.374	4.3	5.842			
165386	18/02/2008	dolerite	-28.12552	119.27544	723500	6886800	Unknown	90892	Chen S.F.	51.13	1.882	12.5	8.71	5.972			
165387	18/02/2008	komatiite	-28.17028	119.37601	739500	6892700	Unknown	90893	Chen S.F.	48.85	0.396	7.367	6.8	3.493			
165388	18/02/2008	komatiite	-28.12022	119.21792	717900	6889700	Unknown	90894	Chen S.F.	45.7	0.485	5.543	8.54	1.114			
165389	18/02/2008	ultramafic schist	-28.1166	119.1705	715500	6888100	Unknown	80804	Pharo R.E.	67.14	0.911	11.87	8.86	5.765			

Batch extraction

The database includes only geochemical data generated by analysis of samples collected by GSWA. Geochemical data in digital form are provided as part of reporting requirements for holders of exploration licences in Western Australia. This geochemical data are available from the DoIR website along with tables of geochemical data in older reports via WAMEX and DigitalPaper once it has reached open-file status.

For more information, contact Paul Morris <Paul.Morris@doir.wa.gov.au>.



New conservation reserves

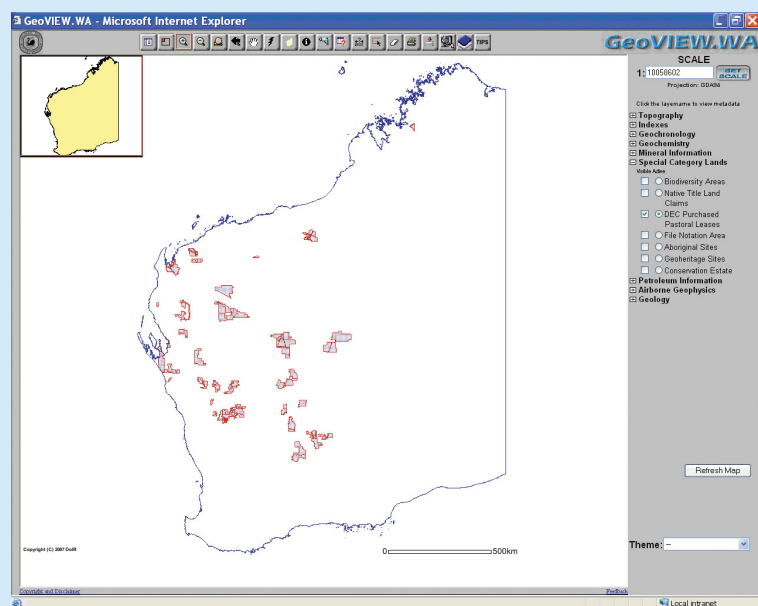
The Government is committed to establishing a terrestrial conservation reserve system in Western Australia that meets the criteria for comprehensiveness, adequacy and representativeness (CAR). With this aim in mind, the Department of Environment and Conservation (DEC) has purchased sheep or cattle stations (whole or part pastoral leases) for inclusion into the conservation estate. Because the stations were chosen purely on broad regional biodiversity values, some contain historical mining centres, current mines and advanced projects that are expected to become future mines.

Access to land for exploration and subsequent resource production is critical for the prosperity that is enjoyed by Western Australians. Government is encouraging multiple land use and aiming to balance the competing demands of conservation and resource development. As a consequence, most new land added to the conservation estate will be in the category of Conservation Park when mineral and exploration is permitted. Decisions on land use, particularly a usage that could prevent exploration, are guided in part by geological information.

The GSWA has carried out mineral prospectivity studies on each of the DEC-purchased pastoral leases and consultation with stakeholders has taken place with the aim of excluding mines and advanced projects from the proposed new conservation reserves.

In September 2007, Government agreed to the creation of conservation reserves over 25 DEC-purchased areas, either as conservation parks or national parks (lands acquired adjoining the Kennedy Range National Park). It is expected that a further 27 conservation reserves will be approved for creation later this year.

The locations of these proposed conservation reserves are available via GSWA's interactive geological map — GeoVIEW.WA under 'Special Category Lands' within DoIR's Online Systems (<http://www.doir.wa.gov.au/geoview>) (see figure above). A free downloadable map is also available from GSWA's online publications page (search under category 'map' and year '2008'). The same hard-copy map is available for a small fee from the Information Centre Mineral House, 100 Plain St, East Perth 6004 (Established and Proposed Aboriginal Land, Conservation Estate, Mineral and Petroleum titles, and Geology Western Australia – 2008).



View of the GeoVIEW.WA screen showing DEC-purchased pastoral leases

For more information, contact Lee Hassan (lee.hassan@doir.wa.gov.au) or Ivor Roberts (ivor.roberts@doir.wa.gov.au).



Department of
Industry and Resources

Petroleum Open Day 2008

Thurs 4 September 2008

Topics likely to include:

- New trends in exploration
- New discoveries
- Development boom
- Geothermal progress
- Latest petroleum systems studies
- Environmental aspects
- Legislative changes
- Land access progress
- Panel discussion of industry issues
- Domestic gas supply issue including tight gas

Esplanade Hotel Fremantle
Cnr Marine Tce & Essex St, Fremantle

Immediately following the GOOD OIL CONFERENCE

For further information contact Kaye Smith (kaye.smith@doir.wa.gov.au)

Ph (08) 9222 3273 Fax (08) 9222 3799

MINEDEX: An essential tool for mining professionals

A new and improved database system for Western Australian mines, mineral deposits and prospects will provide industry experts and professionals with more in-depth information and new search features.

MINEDEX is a continually updated textual database containing information on mining projects and their owners, mineral resources, location, production data and geological attributes.

The system was originally launched in the mid-1980s by former Department of Industry and Resources (DoIR) Director General, Des Kelly, as a comprehensive reference system for Western Australian mines. It has now been upgraded and replaced with a new database, which combines three existing minerals-related systems: MINEDEX (mines, mineral resource estimates and mine production), WAMIN (geology of mineralised sites) and WABMINES (inventory of abandoned mine sites).

DoIR industry and commodity analyst, Don Flint, said the new MINEDEX system was an enhanced integrated minerals database with intelligent links to other DoIR and GSWA systems.

He said it would assist people within and outside the Department with extensive searching, reporting and exporting of mining industry data.

'The main objective was to create a system that would be simpler and easier to use, and as a result more functional. I believe the new MINEDEX system fully meets these requirements,' Mr Flint said.

The new database has a more user-friendly interface, with the Main Menu providing links to the principal elements — Reports, Data Extracts and a suite of search screens.

The search screens cover the main objects in the system — projects, project owners, sites, resource estimates, mineral production, and tenements. Each search screen allows multiple search parameters to be selected, and these lead to the familiar drill-down facility and the ability to follow link after link. Every search screen also has an 'Export data' facility that enables the

results from a personalised search to be exported and stored or used externally. This greatly enhances functionality and flexibility.

In addition, there is a suite of pre-defined Reports, which can be exported in a variety of formats. These are a great way to obtain summary information very quickly.

The function Data Extracts provides pre-defined extracts of bulk data (as csv files) with a link to extracts of state-wide spatial data (ESRI shape files, MapInfo TAB files, and Google Earth KMZ files).

The new MINEDEX was released on 4 June and additional functionality is being added progressively. This includes a new feature that allows the capacity to store photographs.

The new MINEDEX website has taken two and a half years to design and cost A\$1 million to set up. The website was developed by external contractors, SRA Information Technology, based in Adelaide.

SRA is also developing a new environmental workflow system called EARS (Environment Approvals and Regulatory System), which will manage ground clearance, mining proposals and environmental reports for DoIR's Environment Division.

So try it today!

For more information, contact Don Flint (don.flint@doir.wa.gov.au).

MINEDEX on the Web (Public)

Search Projects

Name: %
☒ Current Names Only ☐ Current, Previous and Alternative Names

Project Code: Status:

Owner Name: Confidentiality: ☐ Public ☐ Confidential ☒ Either

Commodity Group: Target Commodity Group:

Commodity: Tenement No.:

Production: ☐ Yes ☐ No ☒ Either Resource Estimates: ☐ Yes ☐ No ☒ Either

Order By: Ascending Descending

Execute Search [Show/Hide Search Criteria](#) [Export Data](#)

Edit	Name	Code	Status	Name Type	Target Commodity Group
	Tabba Tabba - Strelley	300688	Active	Current	TIN - TANTALUM - LITHIUM
	Tabba Tabba Creek / Boral	301583	Active	Current	CONSTRUCTION MATERIALS
	Tabba Tabba Creek / Quarry Industries	301768	Active	Current	CONSTRUCTION MATERIALS
	Table Hill	303552	Active	Current	MANGANESE ORE
	Table Well Creek / Cemex	301685	Active	Current	CONSTRUCTION MATERIALS
	Talbot Island	302776	Active	Current	NICKEL
	Talga Peak	303410	Active	Current	COPPER - LEAD - ZINC
	Talga Talga	300336	Active	Current	GOLD
	Talisker	301190	Active	Current	COAL
	Talisman	302375	Active	Current	PETROLEUM
	Tallering / Royal	303375	Active	Current	IRON ORE
	Tallering Peak / Mt Gibson	300751	Active	Current	IRON ORE
	Tambellup Kaolin	301688	Active	Current	CLAYS
	Tambourah Alluvials	301545	Active	Current	GOLD
	Tampa	300337	Inactive	Current	GOLD

Showing records 1 to 15 of 111
 1 2 3 4 5 151 152

Login Information:
 Database: MINEDEX public, public (public)
 User: 06/06/2008 18:00:35
 Date: 8.5d



Geophysics survey

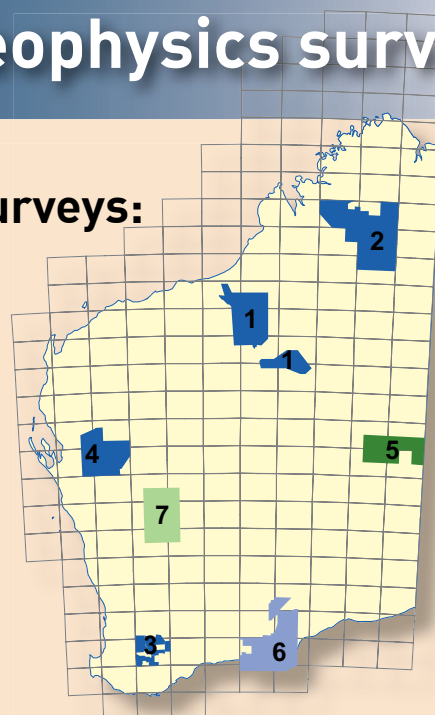
Western Australia regional geophysics surveys: June 2008 update

Download final data releases from the Geoscience Australia Data Delivery System at <www.ga.gov.au/gadds>. Download preliminary and final grids and images at <www.doir.wa.gov.au/geophysics>.

Subscribe to the GSWA mailing list at <www.doir.wa.gov.au/GSWAsubscriptions> to keep informed of preliminary and final data release dates.

For more information, contact David Howard
(David.Howard@doir.wa.gov.au).

In progress
 Airborne
 Gravity
 Planning
 Airborne
 Gravity



ID	Area/Name	Orgn	Method	Specifications	Size	Status	Start	End	Release
In progress or under contract									
1	Paterson 2007	GA	AEM	1, 2, 6 km x 121 m; E/W	29 000 km	Survey	Sep-07	Aug-08*	Dec-08*
2	South Kimberley 2007	GSWA	Mag-Rad	400 m x 60 m; N/S	163 000 km	Survey	Jan-08	Aug-08*	Dec-08*
3	Dumbleyung 2008	SWCC GSWA	Mag-Rad	100 m x 30 m; 400 m x 60 m N/S	70 000 km	Survey	Mar-08	Jul-08*	Aug-08*
4	Byro 2008	GSWA	Mag-Rad	400 m x 60 m; E/W	90 000 km	Survey	Apr-08	Jul-08*	Oct-08*
5	West Musgrave	GSWA	Gravity	2.5 km grid	4 000 stns	Survey	May-08	Jun-08*	Aug-08*
Planning									
6	Esperance – Balladonia 2008	GSWA	Mag-Rad	400 m x 60 m; E/W	120 000 km	Planning	Aug-08*	Feb-09*	May-09*
7	Windimurra 2008	GSWA	Gravity	2.5 km grid	5 200 stns	Planning	Aug-08*	Oct-08*	Dec-08*

Information current at: 3 June 2008

* Estimated dates

AusGeo News

AusGeo News is Geoscience Australia's (GA's) quarterly news magazine. Each issue comprises geoscience-related features, brief articles about GA's research and initiatives, news about geoscience products and spatial data, and a calendar of coming seminars and conferences.

AusGeo News May 2008

Some of the articles in this issue are:



Survey of remote eastern frontier basins completed

New survey delivers high-quality prospectivity and environmental data.



Association of large sandstone uranium deposits with hydrocarbons

The geology of uranium deposits in Kazakhstan points to similar deposits in Australia.



Synchronising clocks in rocks

Refined isotopic decay measures increase dating accuracy.



Revealing the continental shelf off New South Wales

Cross-agency work increases understanding of tsunami hazard and risk.



Creating safer communities

New resource will help reduce the impact of natural hazards in Australia.

Click on <<http://www.ga.gov.au/ausgeonews>> to view AusGeo News and learn more about these stories.



Australian Government
Geoscience Australia



New WA Centres of Excellence announced

On 29 February 2008, the WA Premier as Minister for Science and Innovation, announced funding for two new minerals and energy related Centres of Excellence.

The WA Geothermal Centre of Excellence, a joint venture between CSIRO, the University of Western Australia and Curtin University, was awarded \$2.3 million over three years to build capacity and knowledge within WA to undertake exploration and development of both shallow, and deep dry geothermal resources. Professor Klaus Regenauer-Lieb, who has been recently appointed as Premier's Science Fellow, will lead the Centre. Professor Arcady Dyskin will lead the program focussing on development of deep geothermal resources because of his expertise in fracture mechanics and micromechanical modelling.

GSWA will provide pre-competitive geoscience information to help in research by the Centre and is planning to undertake collaborative work with the centre on deep geothermal resources.

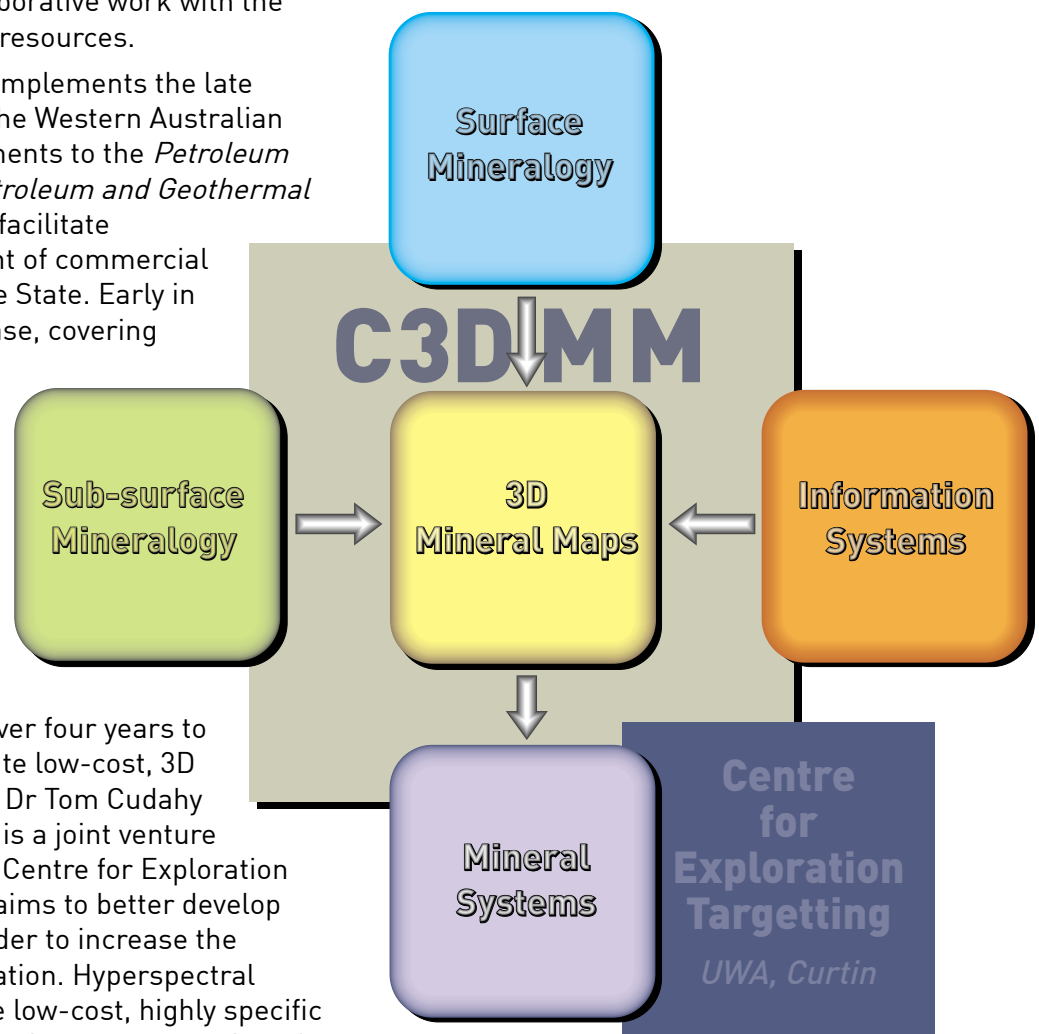
The new research facility complements the late 2007 policy initiative when the Western Australian Parliament passed amendments to the *Petroleum Act* — now renamed the *Petroleum and Geothermal Energy Resources Act* — to facilitate exploration and development of commercial geothermal resources in the State. Early in 2008, the first acreage release, covering the Perth Basin and nearby areas, was offered and 64 submissions covering 12 160 square kilometres were received. The most popular areas were Dongara, Eneabba, Kwinana and Pinjarra.

The Centre for 3D Mineral Mapping (C3DMM) has been granted \$1.5 million over four years to develop new tools to generate low-cost, 3D maps of mineral resources. Dr Tom Cudahy will direct the Centre which is a joint venture between CSIRO and the WA Centre for Exploration Targetting. The new centre aims to better develop hyperspectral sensing in order to increase the efficiency of mineral exploration. Hyperspectral sensing is a tool to generate low-cost, highly specific maps of mineral systems for the next generation of mineral exploration.

A relatively new method of mineral exploration, hyperspectral sensing detects and measures around a hundred frequencies from the infrared (IR) and near infrared parts of the electromagnetic spectrum. As different minerals reflect light of different IR wavelengths — and as the amount of reflected radiation is proportional to the quantity of the minerals within the targetted material — hyperspectral sensing provides detailed information on the surface mineralogy with a high level of quantification.

The Centre will capitalise on the National Virtual Core Library (CSIRO and State/NT geological surveys) and Next Generation Mineral Mapping (CSIRO and Geological Survey of Queensland) initiatives. GSWA is a collaborating institution of the new Centre.

For more information, contact Rick Rogerson (rick.rogerson@doir.wa.gov.au).



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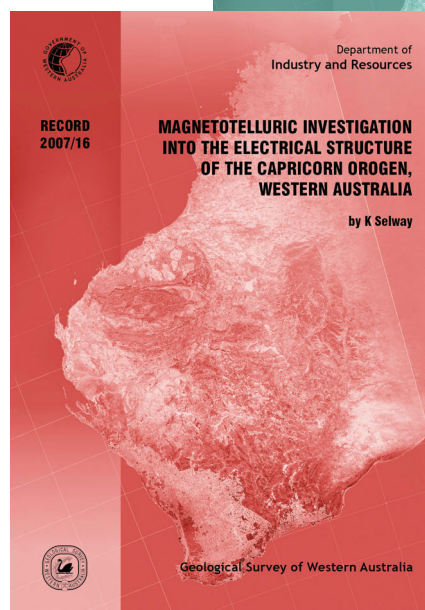
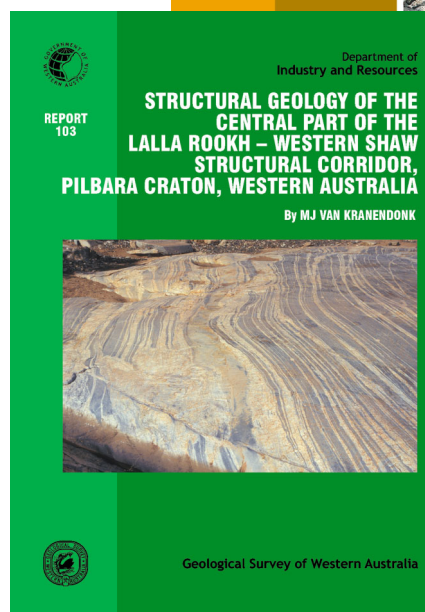
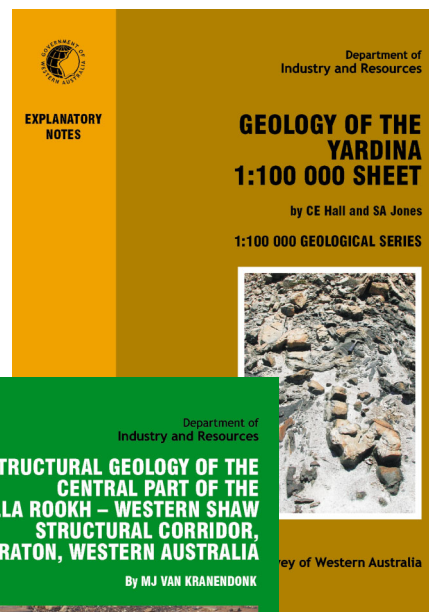
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Prospectivity of state acreage release areas, L08–6 and L08–7, central Perth Basin, April 2008

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