

Geoscience information – Updates to online systems, data and products in 2015–16

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The improvement of online delivery of geoscience data and information is a key priority of the *Creating Opportunities for Resource Exploration (CORE)* initiative. Current projects include system enhancements and the addition of legacy reports and data to GEMIS (Geoscience, Exploration and Mining Information System). The latest enhancement is the migration of the NTGS product catalogue to GEMIS enabling users to simultaneously search across product and industry report collections. Over the last twelve months, the depth of content has increased significantly as another eleven years of legacy mineral exploration reports have been added to GEMIS. As at February 2016, full text reports and data covering the last 35 years can now be downloaded. The new content also includes the reports recently released under the five year open filing provisions of the *Mineral Titles Act*.

During 2015, work on STRIKE was focussed on stabilisation but more significant changes are planned for 2016. The first of these is a reconfiguration of the layer menu, flattening the structure and bringing the geoscientific layer categories such as geology, geochemistry and drilling to the first level of the menu. At the same time, some layers will be renamed or moved to a new category. All these changes will provide easier navigation and a better user experience. The drilling and geochemistry layers will be upgraded in March 2016 after a major data cleansing project and migration to a new database is completed.

Other significant achievements since March 2015 include the completion and release of a number of new HyLogger™ data packages, six new records, five new GIS datasets and two gravity surveys. Three GIS datasets were also re-released with a major revision while another six had minor data corrections.

Mineral industry reports

Open file mineral industry reports can be accessed and downloaded by searching the mineral exploration reports (MEX) collection on GEMIS. However, not all older reports are in a suitable format for web delivery so an ongoing project to systematically convert the older reports to web optimised PDF documents commenced in 2014. In the last 12 months, reports from the years 1979 to 1989 have been uploaded to MEX.

Simultaneously a project aimed at releasing closed file reports five years after submission under provisions in the *Mineral Titles Act (MTA)* is also adding to the number of reports and data available for download. In the last 12 months, reports from 1996 to 2001 have been open filed and added to GEMIS. As the reports being released are now nearing the period when many titles are likely to still be active, a guideline on extensions to the confidentiality period of mineral exploration reports submitted under the *Mineral Titles Act* is in preparation. Applications to extend the period of confidentiality will only be granted for specific and exceptional cases.

Petroleum Industry Reports

Onshore well completion reports and data are now routinely added to the GEMIS Petroleum Wells collection as they become open file. The majority of the open file reports and associated well data for 160 wells are available for download on GEMIS with the exception of datasets over 1.5Gb. As of February 2016, 296 reports have files attached. Reports and datasets that are not scanned or are too large for web delivery are provided upon request to the Minerals and Energy InfoCentre.

Significant progress is being made in the upgrade of the seismic reports database and indexing of legacy material not previously catalogued. These records will eventually form the basis of a new petroleum geophysics collection in GEMIS.

Product Catalogue

The NTGS product catalogue has been redeveloped and will be available in GEMIS from March 2016. GEMIS will become a ‘one-stop-shop’ to find and download industry reports and NTGS products simultaneously. The new NTGS product catalogue has products grouped in the following collections: AGES abstracts and other papers; Digital Information Packages; Geophysical and remote sensing data; HyLogger data; Maps and explanatory notes; Reports, records and books (**Figure 1**).

The product catalogue collections include content not previously delivered over the web. Clients can now read the HyLogger Data Package (HDP) reports prior to deciding to request the large hyperspectral datasets. Gravity survey and other datasets less than 1GB and most geophysical operations reports are also downloadable.

Each individual abstract from all the AGES abstract volumes since 2000 have been indexed. Links in the item records point to the relevant AGES abstract volume for download. From 2016 both the individual papers and the entire AGES Proceedings volume will be downloadable. The chapters of *Geology and Mineral Resources of the Northern Territory* are also available as individual downloads.

Searching using the standard text box includes full text searching of publication contents for all publications except those scanned from the printed version. Search filters allow users to limit results by specifying indexed fields, such as “document type” or “geological province”. Search results are displayed in a table format and show the number of files available for download for each product. Users can either download all files for selected products from the results list using the “Add to cart” button or select specific files from each individual item page. Larger datasets, including HyLogger data, may be obtained from the Minerals and Energy InfoCentre by adding the item to the request cart.

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Every item in GEMIS has a unique and persistent handle called a uniform resource identifier (uri) that can be used for easy referral and sharing. Search results can be saved to an Excel or Reference Manager file. The uri is included in the saved results.

To receive notifications of new items added to GEMIS, users can subscribe to e-mail or RSS alerts for one or all collections.

Drilling and geochemistry data

A major review and validation of all drilling and geochemistry data has recently been completed with the validated data migrated to the Geobank database application. Critical data attributes were identified and data sources checked to populate records with missing data. Duplicates and records with critical attribute data missing have been removed. A new version of DIP 001 will be released for AGES 2016. Related to this, the web services delivering boreholes to the AuScope Discovery Portal and the National Virtual Core Library, and the drilling and geochemistry layers on STRIKE are scheduled for an upgrade in March 2016.

STRIKE

Initial problems, particularly with delivery and representation of titles data, are mostly resolved. The resolution of these issues has been the high priority for the

STRIKE support team over the last year. The focus is now shifting to enhancements and increasing functionality.

Reconfiguration of the layer menu by flattening the structure and bringing the geoscientific layer categories such as geology, geochemistry and drilling to the first level of the menu and moving the Reference layers out of the Titles Register category is the first change in 2016. Together with the renaming and moving of some layers to new categories, these changes will provide easier navigation and identification of layers.

NTGS products

At AGES 2015 we released new editions of four NT wide maps, four new and three updated Digital Information Packages. Several updates of *Shale resource data from the greater McArthur Basin* (DIP 014) have since been released.

Six new records, 26 HyLogger data packages, new GIS datasets for the Illogwa Creek, Groote Eylandt Region, Henbury, Rodinga, Bloods Range and Pellev 1:250 000 scale outcrop geology maps and the Northern Wiso and Victoria Basin gravity survey data were released in 2015. Fully revised GIS datasets for the Mt Liebig, Mt Rennie and Northwestern Musgrave Block Special 1:250 000 outcrop geology maps and minor revisions of six other GIS datasets were also released.

New editions of the NT-wide gravity and metallogenic maps are planned to be released at AGES in March 2016 and the NT-wide magnetic and radiometric maps shortly afterwards.

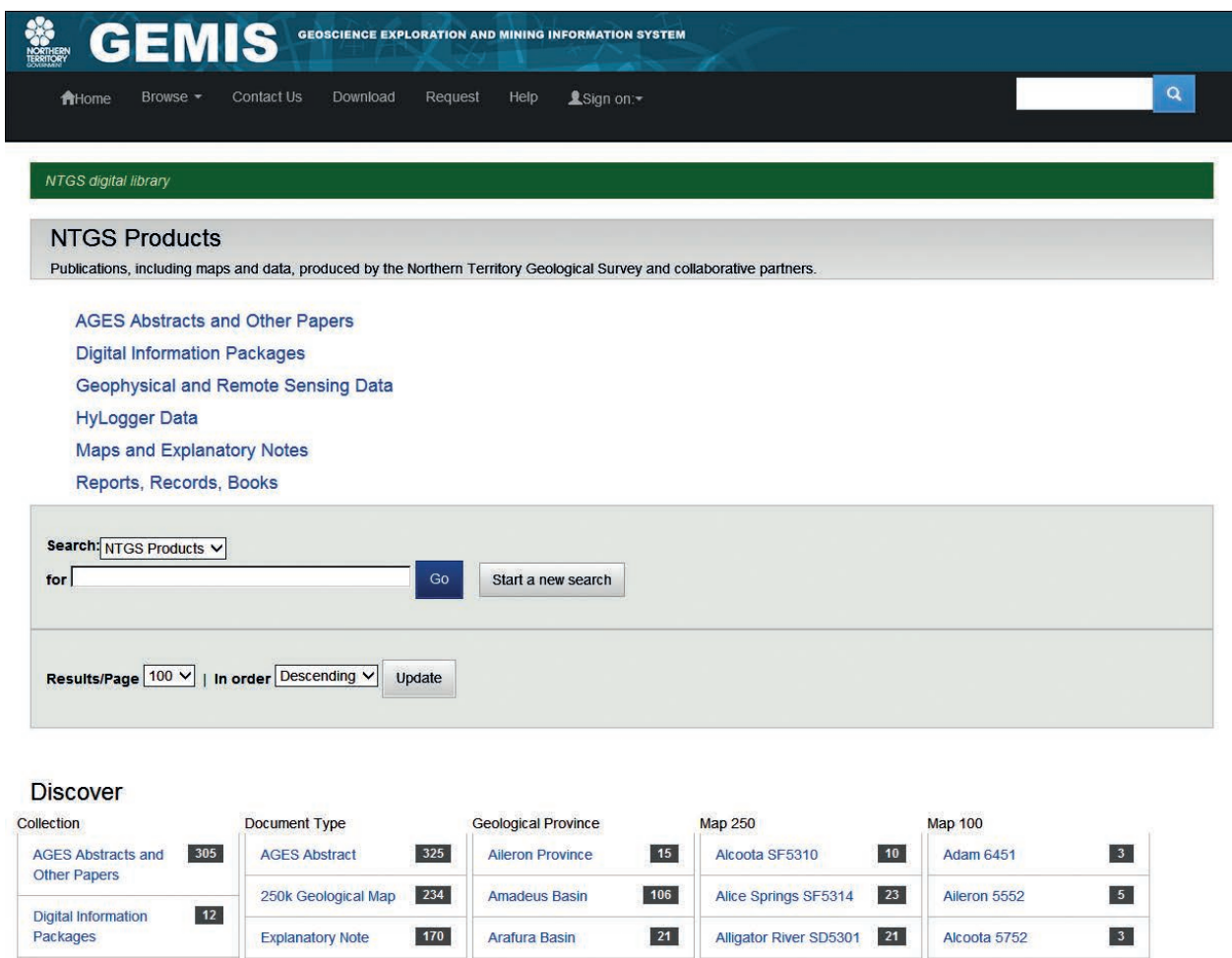


Figure 1. Screen view of the new NTGS product catalogue in GEMIS.