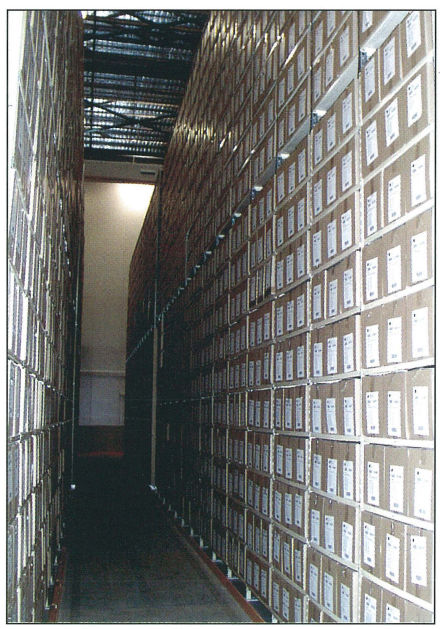
Geoscience Australia's Data Repository

By Edward J. De Zilva

One year has passed since the relocation and integration of all Commonwealth-held petroleum data at Symonston in the ACT. The relocation of digital PSLA data from the former Chester Hill repository to Symonston's core, cuttings and reports repository has produced Australia's, and one of the world's, largest petroleum data collections. Geoscience Australia's vast collection of cores, cuttings, seismic, navigation and other geoscientific data provides valuable information to the petroleum industry and research organisations

Geoscience Australia's data repository has continued to improve data availability and client access to petroleum data in its collection. The introduction of map enabled query forms allows clients to search a petroleum meta-database on the web through either word searches or by 'zooming' in on geographic regions of interest with a mouse. The results of all queries will display the data which is available in the data repository. Ordering of data can also be done over the web by selecting the relevant data returned from a query and submitting an order form. Many requests for data are now conducted by using the online web ordering facilities.

The vast majority of data in the collection is lodged with Geoscience Australia because it is data required for lodgement with the Commonwealth Government under the Petroleum Search Subsidy Act 1957 or the Petroleum (Submerged Lands) Act 1967.



In the past six months, the petroleum industry has carried out $395,000 worth of remastering from data that it has borrowed.

The digital data in the collection is on media such as 3590 cartridges, 3480 cartridges, DLT cartridges, 8 mm cartridges, 4 mm cartridges, 9 track tapes and 21 track tapes. The majority of the data, in physical volume, is on 9 track tapes and 21 track tapes. A program was established to remaster obsolete media types such as the 9 track tapes, 21 track tapes and 3480 cartridges to high density media such as 3590 cartridges. In the past six months, the petroleum industry has carried out $395,000 worth of remastering from data that it has borrowed. This program not only reduces the physical volume of the data set but also preserves the data in a more useable and robust form. There are approximately 570,000 magnetic tapes in the collection.

The data repository holds over 10,000 well and survey reports. The survey reports are from gravity, magnetic or seismic surveys.

The data repository holds in its collection catalogued cores and cuttings, sidewall cores, fluids and gases, thin sections and other prepared samples from petroleum exploration conducted since the 1930s, archived on over 30 line km of shelving. Included in the collection are stratigraphic drill holes and some water boreholes which pre-date the 1930s. There are over 150,000 m of down hole core and over 3MM m of down hole drill cuttings from over 5,500 wells. In addition, over 1,200 open file destructive analysis reports (DAR's) are available.

Facilities are provided at the data repository for:

- Inspection and non-destructive testing
- Gravimetric and chemical tests
- Core slabbing, plugging
- Photography
- Sampling
- Destructive testing is available under certain conditions

The rock collection comprises approximately 500,000 individual samples which were collected by Geoscience Australia during project work over the past 50 years. Derivative material from these rock samples, such as powders for chemical analysis, mineral separates and thin section off-cuts may also be available.

The palaeontological collection comprises samples collected by Geoscience Australia, samples acquired by exchange or donations, and a special reference collection called the Commonwealth Palaeontological Collection (CPC).

The minerals collection consists of samples collected in Australia and worldwide. Collectors and institutions have also donated many specimens to Geoscience Australia. Some collections are held on behalf of the National Museum of Australia. A large selection of mineral specimens is on display in the foyer of Geoscience Australia.

The economic and environmental benefits brought to, or available to, Australia due to Geoscience Australia's data repository are invaluable. The collection itself is a real history of geoscience in Australia.

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