

REMASTERING PROJECT — *what's old is new again!*

The national repository of seismic data on the sub-surface geology of Australia's offshore marine jurisdiction is undergoing a media makeover.

Under the Petroleum Submerged Lands Act 1967 (PSLA) all companies and organisations acquiring seismic survey data within the Australian marine jurisdiction have been required to submit the raw and processed data to Geoscience Australia. Data that are part of a work program are confidential for three years from the date of acquisition. After this period the data are accessible by companies or any other interested party.

This repository of information is made available to exploration companies at cost of transfer. However, much of the data is recorded on outdated media, including 9 and 21 track tapes and 3480 cartridges, making it increasingly difficult to access and expensive to store.

Companies have been required to borrow the large number of older media associated with a seismic survey and return copies to Geoscience Australia. To preserve older data and make it accessible to explorers, Geoscience Australia was allocated \$10 million in the 2003–04 Australian Government Budget to be used for the copying and concatenation of the data onto high-density media.

The overall project involves copying around 285 000 old tapes onto about 12 000 3590B tapes. This format—which holds 10 gigabytes of data per tape—has been the industry standard since 1990. More than 90% of Geoscience Australia's repository of seismic data has been collected in that time, and is stored on just over 40 000 3590B tapes.

Transcription, quality control and physical disposal are being carried out by commercial companies in Perth. The transcription contracts were awarded to Guardian Data and SpectrumData, and quality control is being undertaken by GeoCom Services Australia. After copies are approved, the original tapes are disposed of in Perth to be recycled into plastic products.

The remastering project has been running for one year. To date, about 100 000 nine-track tapes and 40 000 3480 cartridges have been transcribed (see table 1 for list of completed surveys).

The media is delivering easier access and lower costs for petroleum companies and other clients.



Data storage at Geoscience Australia's national repository of seismic data

Table 1.

Survey	Year	Basin	State
NT/P36 Marine Seismic (Arafura Sea S81)	1981	Arafura Basin / Money Shoal Basin	NT
Bridge Bass 1990 Marine Seismic	1990	Bark Sub-basin / Bass Basin / Boobyalla Sub-basin / Durrroon Basin	Tas.
Donna Marine Seismic	1995	Barrow Sub-basin / Carnarvon Basin	WA
C81A Marine Seismic	1982	Barrow Sub-basin / Carnarvon Basin / Exmouth Plateau	WA
C81B Marine Seismic	1981	Barrow Sub-basin / Carnarvon Basin / Exmouth Plateau	WA
C81B Marine Seismic	1981	Barrow Sub-basin / Carnarvon Basin / Exmouth Plateau	WA
Hummock Marine Seismic	1996	Bass Basin	Tas.
Bass 1988 Marine Seismic	1988	Bass Basin	Tas.
HB 80A and Pookanah Detail Marine Seismic	1980	Bass Basin	Tas.
BS89A/B – BS90A/B and T89/2 Marine Seismic	1990	Bass Basin / Torquay Sub-basin	Tas.
Mahakam Marine Seismic	1992	Beagle Sub-basin / Carnarvon Basin	WA
Mohaku 1993 Seismic	1993	Beagle Sub-basin / Carnarvon Basin	WA
Dampier–Beagle Marine Seismic	1975	Beagle Sub-basin / Carnarvon Basin / Dampier Sub-basin	WA
Helvetius 1992 Marine Seismic	1992	Bonaparte Basin	WA

Andromeda Marine Seismic	1996	Bonaparte Basin	NT
Van Diemen Rise Seismic	1969	Bonaparte Basin	NT, WA
Caspian Marine Seismic	1991	Bonaparte Basin	WA
HV11 Skua 3D Marine Seismic	1990	Bonaparte Basin	NT
PC95 Marine Seismic	1995	Bonaparte Basin	WA
Anderdon Marine Seismic	1990	Bonaparte Basin	NT
B89 Marine Seismic	1989	Bonaparte Basin	NT, WA
Copernicus Marine Seismic	1992	Bonaparte Basin	NT
NT/P47 and NT/P48 Marine Seismic	1997	Bonaparte Basin	NT
H2683D Jabiru and Extension Marine Seismic	1984	Bonaparte Basin / Browse Basin / Vulcan Sub-basin	NT
Endeavour Marine Seismic	1995	Bonaparte Basin / Vulcan Sub-basin	WA
SPA 4SL/95–96 (Browse Basin) Marine Seismic	1996	Browse Basin	WA
Calliance Reef Marine Seismic and Seismic Refraction	1983	Browse Basin	WA
Churchill 1980 Marine Seismic	1980	Browse Basin	WA
Interpretation of the Greater Caswell Area Marine Seismic	1984	Browse Basin	WA
Sascha 1992 Seismic	1992	Browse Basin	WA
C94A Marine Seismic	1994	Canning Basin	WA
Lambert Shelf Marine Seismic	1980	Canning Basin / Carnarvon Basin	WA
Minden 3D	1995	Carnarvon Basin	WA
HH88 Marine Seismic	1988	Carnarvon Basin	WA
SPA 3D Marine Seismic (Parker 3D)	1991	Carnarvon Basin	WA
C83A Marine Seismic	1983	Carnarvon Basin	WA
C83B Marine Seismic	1983	Carnarvon Basin	WA
X95A Marine Seismic (Scarborough 2D)	1995	Carnarvon Basin	WA
C92A Marine Seismic	1992	Carnarvon Basin	WA
Boronia Marine Seismic	1983	Carnarvon Basin	WA
Eaglehawk Marine Seismic	1996	Carnarvon Basin / Dampier Sub-basin	WA
Michelle Marine Seismic	1993	Carnarvon Basin / Dampier Sub-basin	WA
Exmouth South 1996 SPA 6SL (95–96)	1996	Carnarvon Basin / Exmouth Sub-basin	WA
Cuvier 1992 Marine Seismic	1992	Carnarvon Basin / Gascoyne Sub-basin	WA
Rundle Marine Seismic	1994	Carnarvon Basin / Gascoyne Sub-basin	WA
NT/P32 1980 Marine Seismic	1980	Carpentaria Basin	NT
Carpentaria Basin 1980 Marine Seismic	1980	Carpentaria Basin	NT
Denman Basin Marine Seismic	1972	Denman Basin	SA
Offshore Twilight Cove Seismic	1970	Eucla Basin	WA
X78A Marine Seismic	1978	Exmouth Sub-basin	WA
GS81A Marine Seismic	1982	Gippsland Basin	Vic.
GP–81A Marine Seismic	1981	Gippsland Basin	Vic.
GUT–83A Marine Seismic and Magnetic	1983	Gippsland Basin	Vic.
GUT–83P Marine Seismic and Magnetic	1983	Gippsland Basin	Tas.
G89A Marine Seismic	1990	Gippsland Basin	Vic.
GH82A Marine Seismic and Magnetic	1982	Gippsland Basin	Vic.
G89A Marine Seismic: Blackback 3D Grid	1990	Gippsland Basin	Vic.
GS95A Marine Seismic (Basker Manta 3D)	1995	Gippsland Basin	Vic.
G84A Marine Seismic	1985	Gippsland Basin	Vic.
OH91B Marine Seismic	1991	Otway Basin	Vic.
OS90A	1990	Otway Basin	Vic.
Geelvink Channel Seismic	1970	Perth Basin	WA
Plum Marine Seismic	1992	Perth Basin	WA

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