

Project Overview

Multi-Client Resources (MCR) in collaboration with DownUnder GeoSolutions (DUG), has produced a very large advanced 3D seismic reprocessing project in the Vulcan Sub-Basin, North West Shelf, Australia.

The North Vulcan Advanced 3D Reprocessing project (NOVAR MC3D), incorporating ten legacy 3D surveys will, for the first time, provide the industry with a superior quality seamless 3D dataset processed through an extensive de-ghosted, de-multiple, anisotropic pre-stack depth migrated sequence.

The NOVAR MC3D data has significantly improved imaging of the deeper Jurassic & Triassic structural & stratigraphic objectives and will allow E&P companies to undertake a more extensive evaluation of the petroleum potential and complex fault-seal risks in the basin.

The continuous 14,816km² 3D dataset extends across the basin margins of the Vulcan Sub-Basin and north east to the Nancar Trough and Laminaria High. It covers high impact exploration, field development and production acreage including:

- ▶ 2019 Offshore Petroleum Acreage Release permits; AC19-1, 2, 3, 4 & 5
- ▶ Orchid-1 commercial gas/condensate discovery (34m net pay, Plover Fm.)
- ▶ Cash/Maple field (3.5 TCF) development
- ▶ Jabiru & Challis shut in fields and surrounding prospective acreage
- ▶ Laminaria-Corallina and Buffalo oil fields

Molyneux Advisors, in collaboration with MCR, has undertaken a regional seismic interpretation study of the NOVAR MC3D and is available for license with the seismic data.

Processing Parameters

The NOVAR MC3D survey encompasses the merging and reprocessing of over 14,800 km² of 3D marine seismic data. It incorporates ten legacy surveys from field tapes through a comprehensive, broadband, pre-stack depth migrated workflow including, source & receiver deghosting, multi-stage multiple elimination applications, reflection & refraction tomography and Kirchhoff TTI anisotropic PreSDM.

Deliverables

- ▶ Image gathers after migration
- ▶ Full fold stacks & angle stacks in time & depth
- ▶ Migration velocity fields, navigation data & final processing report

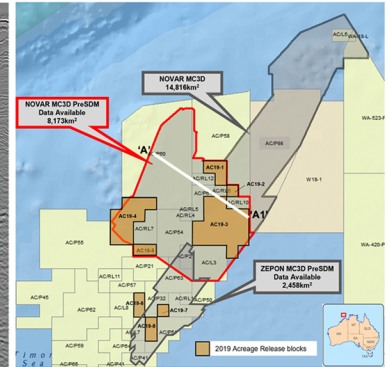
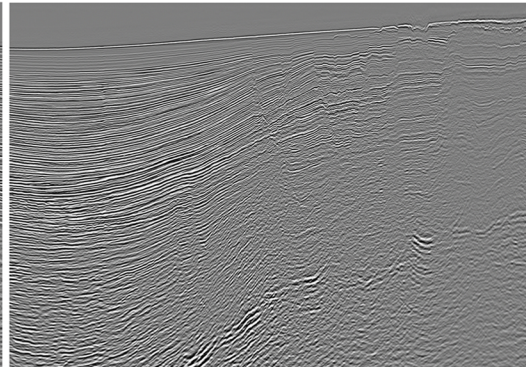
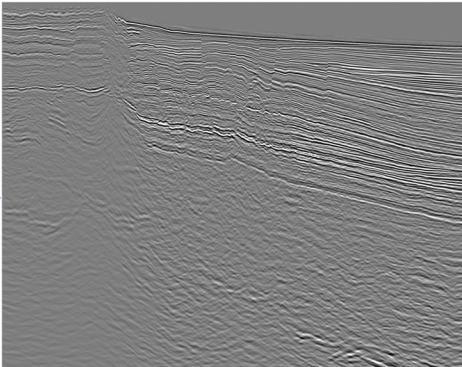
Ursa Legacy 3D (2009)

Ashmore Platform

Onnia Legacy 3D (2008 Reprocessed)

Cartier Trough

Audacious-1



Before

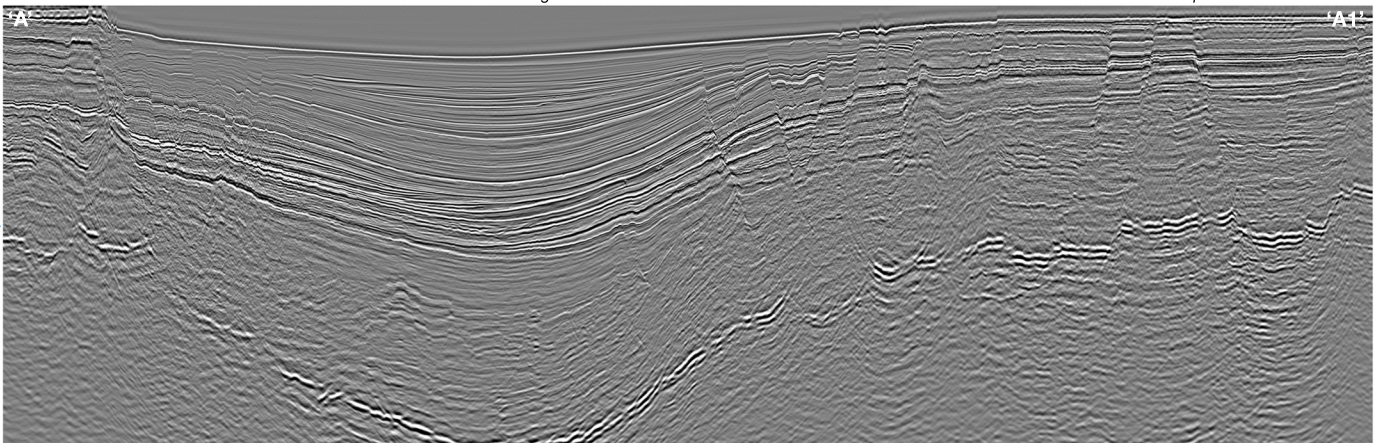
NOVAR MC3D 2019 PreSDM

Ashmore Platform

Cartier Trough

Audacious-1

Jabiru Horst Complex



After

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