



Australia's National
Science Agency

GISERA | Gas Industry Social and Environmental Research Alliance

Progress report

Baseline seismic monitoring of the Canning Basin



Australian Government
Department of Industry, Science,
Energy and Resources



Supported by
Government of
South Australia



Progress against project milestones

Progress against milestones/tasks are approved by the GISERA Director, acting with authority in accordance with the [GISERA Alliance Agreement](#).

Progress against project milestones/tasks is indicated by two methods: Traffic light reports and descriptive Project schedule reports.

1. Traffic light reports in the Project Schedule Table below show progress using a simple colour code:

- **Green:**

- Milestone fully met according to schedule.
- Project is expected to continue to deliver according to plan.
- Milestone payment is approved.

- **Amber:**

- Milestone largely met according to schedule.
- Project has experienced delays or difficulties that will be overcome by next milestone, enabling project to return to delivery according to plan by next milestone.
- Milestone payment is withheld.
- Milestone payment withheld for second of two successive amber lights; project review initiated and undertaken by GISERA Director.

- **Red:**

- Milestone not met according to schedule.
- Problems in meeting milestone are likely to impact subsequent project delivery, such that revisions to project timing, scope or budget must be considered.
- Milestone payment is withheld.
- Project review initiated by GISERA Director.

2. Progress Schedule Reports outline task objectives and outputs and describe, in the 'progress report' section, the means and extent to which progress towards tasks has been made.

Project schedule table

TASK NUMBER	TASK DESCRIPTION	SCHEDULED START	SCHEDULED FINISH	COMMENT
Task 1	Identification of Potential Seismic Sources	1 Jul-21	31 Aug-21	
Task 2	Establishing a CSIRO data centre with appropriate data workflows	1 Sept-21	31 Aug-24	
Task 3	1 st Interim Report	1 Apr-22	30 Jun-22	
Task 4	Publication platform development	1 Nov-22	28 Feb-25	
Task 5	Refining geological models	1 Nov-22	31 Oct-24	
Task 6	2nd Interim Report	1 Apr-23	30 Jun-23	
Task 7	3rd Interim Report	1 Apr-24	30 Jun-24	
Task 8	Final Report	1 Mar-24	30 Apr-25	
Task 9	Communicate findings to stakeholders	1 May-25	30 Jun-25	

Project schedule report

TASK 1: Identification of Potential Seismic Sources

BACKGROUND

The identification of existing seismic sources including man-made ones prior to the installation of the network is critical in discrimination in later stages.

TASK OBJECTIVES

Conduct desktop study to identify and map existing seismic sources from legacy data.

TASK OUTPUTS AND SPECIFIC DELIVERABLES:

2D maps of seismic sources and their potential impact on the planned seismic array. It will provide input to the fine tuning on the location of the planned seismic array.

PROGRESS REPORT

This task is complete now.

- The shapefiles of the locations of the road network, petroleum licenses, mines (both historical and operating ones) and proposed seismic monitoring station locations have been obtained from the Geological Survey of Western Australia and Landgate (Government of Western Australia).
- Historical seismic event information has been sourced from Geoscience Australia and IRIS earthquake catalogues.
- Reproducible python-based 2D mapping scripts have been developed to map this information.
- The mapped spatial information of road network, petroleum licenses and mine locations are assessed as potential source generators with respect to the station locations.

Variations to Project Order

Changes to research Project Orders are approved by the GISERA Director, acting with authority, in accordance with the [GISERA Alliance Agreement](#). Any variations above the GISERA Director's delegation require the approval of the relevant GISERA Research Advisory Committee.

The table below details variations to research Project Order.

Register of changes to Research Project Order

DATE	ISSUE	ACTION	AUTHORISATION

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GISERA is a collaboration between CSIRO, Commonwealth and state governments and industry established to undertake publicly-reported independent research. The purpose of GISERA is to provide quality assured scientific research and information to communities living in gas development regions focusing on social and environmental topics including: groundwater and surface water, greenhouse gas emissions, biodiversity, land management, the marine environment, and socio-economic impacts. The governance structure for GISERA is designed to provide for and protect research independence and transparency of research.