



Australia's National
Science Agency

GISERA | Gas Industry Social and Environmental Research Alliance

Progress report

Baseline Groundwater and Seismicity of northern Perth Basin



QGC

Santos

tamboran
RESOURCES



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
1	Water Level Monitoring – Preprocessing	March 2024	Apr 2024	Complete
2	Water Level Monitoring – Data Analysis	May 2025	Dec 2024	
3	Water Level Monitoring – 4D Mapping of WL Changes	Jan 2025	Dec 2025	
4	Interim Report 1	Jul 2024	Jul 2024	
5	Seismicity-Preprocessing	April 2024	Apr 2024	Complete
6	Seismicity – Event Detection	May 2024	Sept 2024	
7	Seismicity-Initial Event Location	Oct 2024	Mar 2025	
8	Local Velocity Model Integration	April 2025	Jan 2026	
9	Final Estimation of the Locations of Seismic Events and Catalogue Building	Jul 2025	Jan 2026	
10	Interim Report 2	Feb 2025	Mar 2025	
11	Final Report	Dec 2025	Jan 2026	
12	Communicate project objectives, progress and findings to stakeholders	Mar 24	Jan 2026	

Project schedule report

TASK 1: Water Level Monitoring – Preprocessing

BACKGROUND

A number of steps need to be followed to make the data ready for the next stage of the data analysis.

TASK OBJECTIVES

Removing instrument gain, homogenising the records, removing problematic recordings, and quality control the data.

TASK OUTPUTS AND SPECIFIC DELIVERABLES:

A homogenised seismic data collection, ready to be used in the next steps of the 4D seismic imaging.

PROGRESS REPORT

This milestone is complete.

Raw data imported into CSIRO's internal network, data homogenisation, spectral analysis and filtering complete. The data is in general ready for the next step of 4D monitoring.

TASK 2: Water Level Monitoring – Data Analysis

This task will be completed December 2024.

TASK 3: Water Level Monitoring – 4D Mapping of WL Changes

This task will be completed December 2025.

TASK 4: Interim Report 1

This task will be completed July 2024.

TASK 5: Seismicity - Preprocessing

BACKGROUND

Seismic raw datasets often contain the signature of the measurement setup and also potential data glitches. Before proceeding to actual data processing, these effects need to be removed from the data and a QC analysis needs to be performed.

TASK OBJECTIVES

Application of instrument removal, filtering, and format conversion of the raw records.

TASK OUTPUTS AND SPECIFIC DELIVERABLES:

A homogenised seismic data library to be used in the coming steps.

PROGRESS REPORT

This milestone is complete.

As is the case in milestone 1, raw data has been imported into CSIRO's internal network, data homogenisation, spectral analysis and filtering complete. The data is in general ready for the next step of 4D monitoring.

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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Contact us

1300 363 400
+61 3 9545 2176
csiro.au/contact
csiro.au

For further information

1300 363 400
gisera.csiro.au

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.