



GISERA | Gas Industry Social and Environmental Research Alliance

Minutes of the Queensland Research Advisory Committee Meeting No. 16 held in CSIRO offices Brisbane and via video on Monday, 15 April 2024

OPENING

The meeting of the CSIRO GISERA Queensland Research Advisory Committee (RAC) was called to order at 9.03 am (AEST) on Monday, 15 April 2024.

PRESENT

Damian Barrett: GISERA Director (CSIRO)
Tom Measham: Research Director (CRC for Transformations in Mining Economies, UQ)
Trish Leddington-Hill: Health Care Sector, Southern Rural Queensland
Sanjeev Pandey: Executive Director, OGIA (QLD RDMW)
Campbell Noble: HSE Manager (Australia Pacific LNG)
Thomas Flottmann: Origin Chief Geoscientist (Origin Energy)

Other participants:

Cameron Huddlestone-Holmes: GISERA NT State Leader (CSIRO)
Jizelle Khoury: GISERA Executive Officer (CSIRO)
Melina Gillespie: GISERA Communication & Stakeholder Engagement Leader (CSIRO)

Apologies:

Andrew Drysdale: Managing Director (Alsajad Natural Research Management)

1. WELCOME, APOLOGIES AND ADOPTION OF AGENDA

The GISERA Director welcomed all members to the meeting.

Apologies were received from Andrew Drysdale.

The agenda was unanimously approved as distributed.

ITEMS FOR DISCUSSION

2. GISERA COMMUNICATIONS

The GISERA Communication and Stakeholder Engagement Leader provided an overview of the types of communication tools developed to supplement the research being undertaken in GISERA.

Also noted was an upcoming community event to present the research of ten GISERA projects relevant to the southern Queensland area and RAC members were encouraged to provide suggested names of groups/members that could be invited.

It was noted that The World Science Festival is also held in Chinchilla and that CSIRO should consider future participation.

3. ACTIONS FROM PREVIOUS MEETING

Action 15-06-23 Item 7 for the ongoing provision of GHG/methane measurements information will remain open.

All other actions from the previous meeting have been completed.

4. PROJECT PROPOSAL

Sources and mobility of gas in formations below the Walloon Coal Measures

The GISERA Director provided a summary of the project proposal.

Key points raised:

- This is a very useful project that has strong support from the RAC.
- The project is ambitious, and the focus should be on the main underlying aquifers, in particular the Hutton. However, it was noted that to do the petroleum systems aspect, the project will have to look at the sources of gas across the two basins (Surat and Bowen) more broadly.
- The project should be split into two stages – with stage one to include the discovery and conceptual modelling phases and stage two to include the modelling, analysis and reporting phase.
- The project will include a stage gate/decision point near completion of stage one (in the last quarter of 2024) where the researchers will present the refined conceptual models and what the petroleum systems model will address.
- It would be useful (as part of this project or another) to have an analysis on the role of methanogen and microbial contributions in the source formations of methane. This may discover complex and surprising chemical/biological sources. CSIRO can keep this in mind when

conducting this work and then potentially formulate questions around the source reactions/biology as a potential future separate project. However, prior to developing any future project, CSIRO should have early engagement with industry/OGIA to understand what the challenges are and how to address them.

- Given the industry has been operating in the region for nearly 20 years, the use of the word 'baseline' may be misinterpreted. Suggest wording change.
- Will this project look at naturally occurring gas release? This point should be acknowledged at the outset.
- The researchers will need to consider the best way to present the outcomes of this project to those most concerned with the results e.g. agricultural water users. If there are individuals that can provide technical input into the delivery of the project, then participation on the TRG may be appropriate, otherwise the research team should consider appropriate engagement with water users to most effectively present project outcomes.
- Depending on the direction determined during the stage gate/decision point, OGIA in principle supports a strong dependency on collaboration between OGIA, UQ's Centre for Natural Gas and CSIRO for delivery of stage two of this project. This must be addressed in the project.

Outcome: The QLD RAC approved this project, subject to the actions below being addressed to the satisfaction of the GISERA Director.

Action: The project should be split into two stages with the inclusion of a stage gate near the end of the conceptual modelling phase.

Action: The research proponent to change use of the word 'baseline' in proposal.

5. PROJECT PROPOSAL

Understanding controls and constraints of potential microbially induced corrosion in onshore gas wells

The GISERA Director provided a summary of the project proposal.

Key points raised:

- It was noted that there is not extensive engagement built into this project. CSIRO should look for ways to connect with other engagement and communication mechanisms and explore ways to have on ground presence e.g. regional community events such as agricultural shows, frequently asked questions, webcasts, animations and via GasFields Commission activities.

- CSIRO is conducting a number of projects around well integrity and it will be important to put all results of these projects in context to explain what well integrity is and what factors contribute to well integrity over time.
- It was noted that a former operational hydrogeologist (now retired) worked in this space and may be able to provide additional ideas on appropriate engagement.
- It would be worthwhile consulting a material scientist in the project to better understand the behaviour of cements and steels.

Outcome: The QLD RAC approved this project, subject to the actions below being addressed to the satisfaction of the GISERA Director.

Action: The research proponent to examine additional means of engagement and communication of the outcomes of this project.

6. PROJECT PROPOSAL

Beneficial reuse options for brine from the Surat and Bowen basins

The GISERA Director provided a summary of the project proposal.

Key points raised:

- Tasks 1 and 2 involve the compilation of existing data around brine composition, but there is not a lot of information available.
- The proposal needs to be refined to address what knowledge about brine characteristics is known now and what information sources (e.g. through industry) can become available. The proposal should also include the characterisation and sampling of brine.
 - CSIRO should engage with the three industry operators to determine what they know and what data they have.
 - There needs to be more in this proposal around the characterisation of brine and how it might vary spatially throughout the Surat Basin. The project needs to consider a combination of the bulk composition of the brine and ponds, but also what the processes are as the brine dehydrates.
 - Needs to be consideration of how a spatial sampling program would be established and how much would it cost.
 - The re-use options should be driven by composition data of current brines.
 - Needs to include other options for the disposal or re-use i.e. transport elsewhere, injection into coal etc.

- The economic analysis needs to open into more of a set of options that is not prescriptive in terms of the techno-economics. Inject a broader economic viewpoint rather than techno-economic analysis.
- Reprioritising the proposal with greater effort in the earlier stages i.e. data, characterisation and the sampling.
- When socialising the outcomes of this work it would be good to integrate with UQ Centre for Natural Gas who talks to community on CSG issues.
- Sanjeev Pandey will consult with DES to get their views on research proposal.
- Sanjeev Pandey will interact with the RAC offline.
- Consideration should be given to a further proposal on the interactions of salts with pond/storage liners.

Outcome: The QLD RAC would like the research proponent to revise the proposal taking to account all the points raised and submit a revised proposal via email to the RAC for consideration.

Action: The research proponent to refine the project to consider the RAC comments including data availability and gaps, inclusion of characterisation and sampling of brine and options with broader economic viewpoint.

Sanjeev Pandey left the meeting at 11.05am (AEST).

7. PROJECT PROPOSAL

Identifying drought refuges for terrestrial species in the Cooper Basin

The GISERA Director provided a summary of the project proposal.

Key points raised:

- The RAC were in support if this project proceeding, noting Sanjeev Pandey and Tom Measham both provided support prior to leaving the meeting.
- Tom Measham will interact with the RAC offline.

Outcome: The QLD RAC approved this project without amendment.

Tom Measham left the meeting at 12.00 noon (AEST).

ITEMS FOR NOTING OR DISCUSSION BY EXCEPTION

8. OTHER BUSINESS

No matters raised.

NEXT MEETING

The next meeting of the QLD Research Advisory Committee is yet to be scheduled. It is anticipated that a meeting will occur once further proposals are established.

MEETING CLOSE

The meeting closed at 12.12 pm (AEST).

SUMMARY OF ACTIONS FROM GISERA QLD RAC MEETING #16 – 15 APRIL 2024

Agenda Item	Action
15-04-24 Item 4	The project should be split into two stages with the inclusion of a stage gate near the end of the conceptual modelling phase.
15-04-24 Item 4	The research proponent to change use of the word 'baseline' in proposal.
15-04-24 Item 5	The research proponent to examine additional means of engagement and communication of the outcomes of this project.
15-04-24 Item 6	The research proponent to refine the project to consider the RAC comments including data availability and gaps, inclusion of characterisation and sampling of brine and options with broader economic viewpoint.

SUMMARY OF ACTIONS CARRIED OVER FROM PREVIOUS MEETINGS

Agenda Item	Action
15-06-23 Item 7	CSIRO to continue to provide information to State Government and industry stakeholders on information derived from GHG/methane measurements undertaken as part of CSIRO GISERA research in the Surat Basin.