# International Association of Drilling Contractors 3657 Briarpark Drive, Suite 200

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www.iadc.org

# IADC Geothermal Committee Meeting, 11 June 2024

Present at the meeting were:

Scott Farmer, H&P; Kevin Gray, Black Reiver; Alexander Heger, OMV; John Beswick, Marriott Drilling; Elliott Howard, Fervo; Fredrik Meyer-Lampe, Odfjell Tech; Alex Ott, Oddfjell Tech., Oliver Tausch, Red Drilling; Alexa Gonzalez, Blade Energy; Rafael Wagner, OMV; Michael Strauss, Ensign Energy; Thad Dunham, IADC; Diana Tronco, Inco Drilling; Steve Nas, Wellspec; Elliott Howard, Fervo; Brage Johannesen, Parker Wellbore; Taylor Mattie, Project Innerspace; Shruti Raghuram, Rystad; Jordan Barnes, Rystad; Andrew Berry, Wild Well Control; Peter Kazar, NEOM; Bryant Jones, Geothermal Rising; Kevin Jensen, BP; Lars Nydahl Jørgensen, IADC (minutes). In total 25.

#### 1. Minutes of May 2024 Meeting

There were no comments to the minutes.

#### 2. Introduction of new members

New members joining the committee were Shruti Raghuam – Rystad Energy Asim Alkhuwayr – Aramco Joshua Theil – Wild Well Control Gregory Walz – Clear Round Tech Tyler Bernard – Patterson UTI Diana Tronco – Inco-Drilling Andreas Karkossa – KCA-Deutag Péter Kazar – NEOM Marcus Oesterberg – Ignis Energy

Those present from this group had an opportunity to introduce themselves.

Also present in the meeting were Taylor Mattie from Project Innerspace, Bryant Jones from Geothermal Rising

#### 3. **IOGP Introduction**

Lars reported that IOGP were considering to devote resources towards geothermal energy, at this point in time in the EU. If this were to be happen, IADC had encouraged IOGP to collaborate with us and possibly with other trade organisations. We will know more in the coming months.

#### 4. GEODE project

Scott, Thad Dunham from IADC and Taylor Mattie from Project Innerspace reported on the GEODE project. This is a 5-year project initiated by the US Department of Energy, which has set aside \$165 million for the project. The project is designed to further geothermal innovation by bringing together subject matter experts from the geothermal and oil- and gas industries.

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Project Innerspace is the "primary investigator" for the project, supported by Geothermal Rising and SPE.

A number of task force groups, each with 10-15 subject matter experts, will be established. Each of the task force groups will be led by a task force chair. As one of the task forces is drilling technology, IADC has been asked to fill the corresponding chair position. The individual must be a US resident.

Work is in progress to identify a suitable individual.

#### 5. IADC Well Classification

Scott went through the status of the well classification. The classification will be presented at the World Drilling Conference in Madrid next week.

Following on from a discussion with Fervo, the subject came up whether "classification" was in fact the right word, as the classification in its present form would not fulfil a geothermal operator's expectations for a geothermal well classification. There was no doubt that linguistically, the product could in fact be called a classification, but would "definition", "categorization", "indexing system" or something else possibly better describe the product in a manner that would be understood by all involved?

From the Geothermal Committee's perspective, what is at hand is an instrument which will facilitate properly informed discussions between geothermal operators, drilling contractors and others in the broader drilling community.

There was agreement that the possible disagreement does not relate to the substance, but rather to what the product is called. So, it is mainly an explanation issue, which – absent a name change – may be addressed in the text of the Geothermal Well Drilling Guideline.

With regard to the substance, a survey had been made among committee members to ensure there was broad endorsement of the classification. At the time of the committee meeting, 25 companies had responded to the survey. All, except one, were positive. Kevin had been instrumental in creating and conducting the survey. This was a significant effort, which Scott thanked Kevin for.

On technical aspect, which continues to give rise to discussion, is the choice of 120 deg as the step to high temperature. Some service companies have developed downhole equipment, which can be used above 150 deg. If 120 degrees is defined as the threshold, this could then be cause for unfair competition. There was agreement, that this was possibly a controversy which could be solved with the right choice of words.

There was then a discussion about whether the "Drilling Complexity" category in the classification was in overly complex. There was some support for this observation, and it was agreed to give this aspect some attention in the forthcoming work.

The feedback received from the questionnaire will be considered and discussed by the working group before the definition document is created. Members that have provided



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specific feedback will likely be requested to provide further clarification, if required, and participate to the working group meeting.

#### 6. AOB

There being no further business, the meeting was adjourned.

/ Lars Nydahl Jørgensen



Geothermal Committee General Meeting – 11/06/24



## Agenda

- Validation of MoM of the previous meeting
- New Members
- IOGP Introduction
- GEODE Project
- IADC Well Classification
- AOB



### **New Members**

- Shruti Raghuam Rystad Energy
- Asim Alkhuwayr Aramco
- Joshua Theil Wild Well Control
- Gregory Walz Clear Round Tech
- Tyler Bernard Patterson UTI
- Diana Tronco Inco-Drilling
- Andreas Karkossa KCA-Deutag
- Péter Kazar NEOM
- Marcus Oesterberg Ignis Energy

58 members 40 companies



### **IOGP**

- Caterina De Matteis
- Octav Baciu

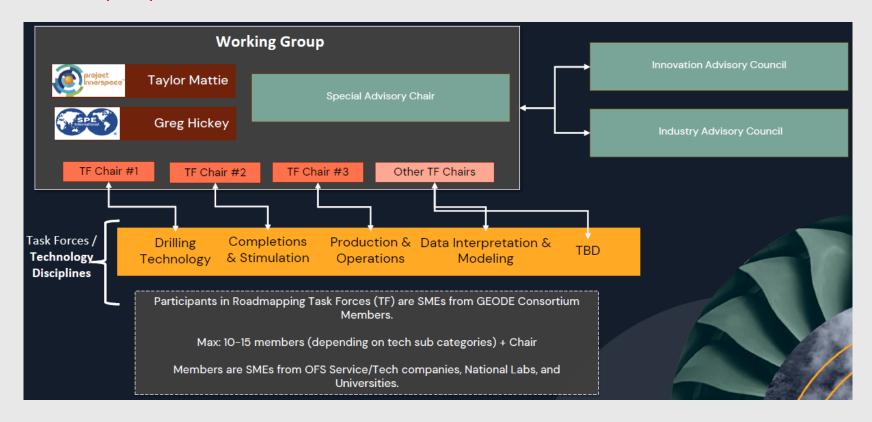


## **GEODE** (1/2)



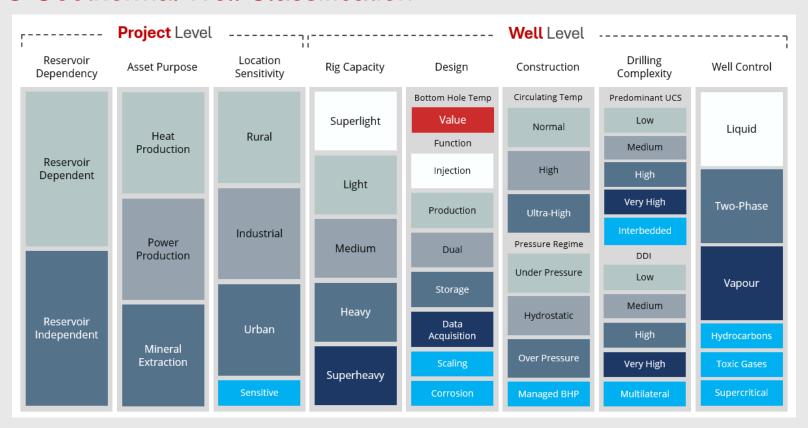


### **GEODE** (2/2)





### IADC Geothermal Well Classification





### IADC Geothermal Well Classification

- Committee Endorsement
  - Responses 15 (14 companies), 14 positive, 1 negative
- Comments:
  - Temperature Ranges (120°C "invented" category)
  - General classification definition is it a classification system or something else?
  - Potentially over complication in Drilling Complexity category



### Way Forward

· Aim to define the first draft of classification in Q1 2024



Q2 2024 refine classification, documentation and begin endorsement



- End of May/Beginning of June for endorsement of Committee
- Present at World Drilling on the 17<sup>th</sup> of June
- Draft documentation to be completed and shared/presented to EGEC, IGA and Geothermal Rising
- End Q3 deliver IADC Classification
- Q4 Launch other section of IADC Geothermal Well Drilling Guideline

