Constructive classrooms course.

Instructor

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Geologist _ Research

Description

The purpose of this training is to prospectively analyze complex scenarios in the exploration and production of oil wells projected with the knowledge management of geomechanics. Its theoretical abstractions imbricated in the integration and systemic analysis are supported by the approaches of world-renowned authors.

Understanding that the objective of this vision is to propose the orientations and knowledge necessary to think in perspective, in order to have tools that allow us to come up with visions and strategic actions, relying on knowledge of rock mechanics and its applications in all the core fields of the value chain of companies in the oil sector.

From the analysis of the perceptions received, during years of operational experience and in our investigations the participant must obtain the basic concepts to deepen the geomechanics expertise and above all to understand the importance in case of developing in one of the enabling engineering (drilling, geology, petrophysics and geophysics), so as to efficiently and proactively streamline the workflow for the development of the geomechanical models of the subsoil.

Methodology to be used in the development of training.

CAT Analysis tools in conversations

Techniques will be used to build constructive conversations creating a culture of student and instructor interaction where previously it will be sent by the technological platform P*rezi* for presentation explaining the topics that will be given in the course in a clear and precise way, also pre-generated videos will be generated. and post-course as well as surveys to see the advances that are intended to be achieved by students.

In the discussions, three important elements will be taken into account, such as the interventions respecting the right of words in turns as well as the elements for the

development of student concepts and finally the student's ability to focus on the topic to be discussed.

In order to create clarify strengthen and negotiate concepts that at the end of the course should positively affect the majority of students by consensus so that our students create new skills, recognizing that we are challenging ourselves and leaving our own areas of comfort, highlighting the importance of listening in the role of our colleagues' discourse.

Scope

Professionals from the branches of geosciences, reservoir engineering and drilling engineering, fluid engineers and other professionals who work in reservoir characterization and simulation.

Production Engineers, Project Leaders.

Goals

• Vision of Geomechanics. Breaking paradigms

• The importance of the MEM (Subsurface Geomechanical Model).

• A basic knowledge of rock mechanics.

• Fundamental principles of geomechanics and their application to problems in oil fields.

• How to calibrate the MEM?

• How can geomechanics be used as a predictive tool for field planning?

• How to optimize investments in Geomechanics project for drilling and production objectives?

• Geomechanics as a point of connection between operations and reservoir characterization.

• Knowledge management of geomechanics.

• How to interpret and the results of laboratories specialized in rock mechanics.

• Flow charts of work for geomechanical models of the subsoil.

• Practical cases with results in different applications.

Program

1. Introduction

2. Pre-course survey

3. Previous videos

4. Pre-course instructions

5. Tables to complement ideas and previous discussions

6. Supply of bibliographic material

7. Data audit, elaboration of quality matrices

8. Analysis of drilling events and non-productive times. (Drillmaps).

9. Resistance of the Rock - Mechanical Laboratory Tests

Elastic modules of the rock.

10. Conversation about Calibration versus laboratory results record results (static vs. dynamic).

11. Discussion on Geodynamics of watershed formation, importance of the structural model

12. Rock Physics the importance of its interpretation, different operating visions vs service companies

13. Petrography and rock facies, implications in the mechanics of rocks.

14. Building Rocks Failure Criteria

15. Arguments about Pore Pressure in Rocks

16. State of efforts on earth

17. Logs to wells and their direct or indirect applications in geomechanics

18. Well Stability Planning (operational windows)

19. Planning the drilling direction.

20. Coating settlement planning.

21. Geomechanics applied to conventional - unconventional reservoirs (sand production, migration of fines, hydraulic fracture, subsidence, practical cases)

22. Content evaluation

23. Post-course survey