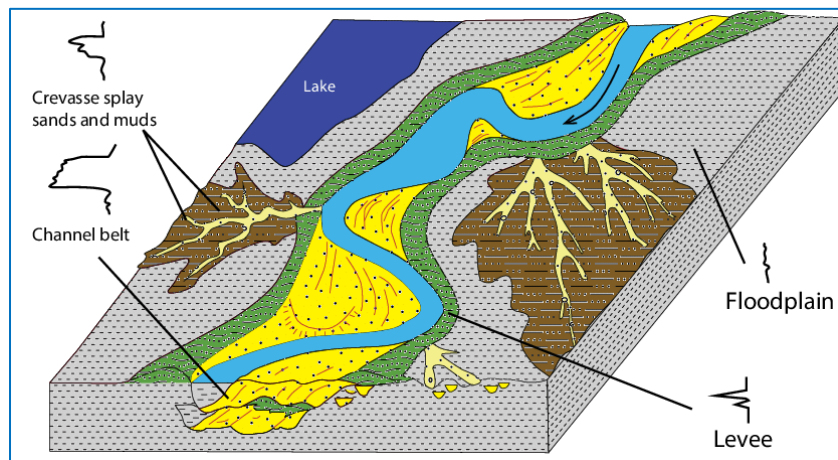




DE184:

Fluvial Sedimentation:

Principles and Application

(Fluvial Facies Analysis & Borehole Images)

Training Description:

Participants on this intensive training course range from petrophysicists, geologists, geophysicists or engineers who use core, borehole images, log data, core data and production data to produce or understand facies produced in a fluvial sedimentary environment. The goal of this training course is to learn to develop a G&G workflow which utilizes a variety of geological data essential to produce an accurate fluvial reservoir model.

The participants will be able to utilize all forms of data that can be used to build a fluvial geological model. Ranging from mud logs, rock cuttings, thin-sections, core, borehole images, log data, seismic and geological analogues. The participant will build and interpret facies logs, to create detailed facies maps deposited within a fluvial environment. Participants will be able, despite their different working sectors, to deal with fluvial sedimentary models, interpret facies logs and understands varying sand body architecture and geometries. As well as learning about the different tools needed to acquire the most accurate data to derive accurate facies models.

The course will highlight:

- Understanding the fundamental different sedimentary plays within the fluvial environment
- Learn the different sedimentary flow processes that deposit within a fluvial system
- Analysis of mud logs, rock cuttings, core and thin sections to build robust facies types and facies associations
- Interpret the key features of borehole images, and interpret the dip data to determine palaeoflow direction and sand dispersal
- Understanding and utilizing geological analogues to provide the input parameters to build a fluvial reservoir model

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Understand different fluvial facies models and their sedimentary setting
- ✓ Interpret mud-logs, core and thin sections to produce fluvial facies logs and a facies model
- ✓ Utilize borehole images, log data, ECS and NMR to generate fluvial electro facies
- ✓ Identify accurate geological analogues, to derive input parameters for geological models
- ✓ Understand up-scaling, which honors geological data to create accurate static and dynamic geological modelling

Personal Impact:

- ✓ Gain knowledge in other disciplines
- ✓ Produce smarter workflows increasing the work efficiency
- ✓ Learn to apply better geological facies models
- ✓ Reduce costs by improving data acquisition
- ✓ Improve career growth by improved workplace understanding

Organisational Impact:

- ✓ Better synergy between disciplines
- ✓ Smarter workflows increasing the work efficiency
- ✓ Better understanding of the evolution of data from acquisition to reserve calculation

- ✓ Improve data acquisition to acquire only essential data necessary to reduce uncertainty
- ✓ Improve the quality of the static and dynamic model to reduce drilling risks

Training Designed for:

This course is intended for Geologists, Petrophysicists, Geophysicists, Reservoir Engineers, Technical Project Managers, Exploration Managers, and Geomodellers.

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

- ❖ PRE-TEST
- ❖ Introduction
- ❖ Overview of the Alluvial and Fluvial Environment – The different Types of Physical Processes
 - Alluvial and fluvial processes from braided to meandering channels
 - Different type of physical processes from tractional to suspended flows
 - Different types of river morphology and their impact on sedimentation
 - Classification of fluvial clastic systems

DAY TWO:

- ❖ Fluvial Sedimentation – Facies Characteristics of Different River Morphologies
 - Understand different types of alluvial and fluvial systems
 - Identify the different controlling processes and their facies and facies associations
 - Sand body architecture and geometries
 - Review the Petrophysical parameters and facies

DAY THREE:

- ❖ Creating Electrofacies Utilizing the Mudlog, Rock cuttings, Core, Borehole Images to Produce Facies Types
 - Principle of borehole images and interpreting electrofacies
 - Dip picking and dip interpretation in fluvial facies
 - Palaeocurrent analysis and sediment dispersal patterns
 - Creating electro facies incorporating core, log data, NMR and ECS – Defining cut-offs

DAY FOUR:

- ❖ Case Studies
 - Outline of classical outcrop examples
 - Subsurface fluvial plays
 - Utilizing seismic data
 - Using analogues to input parameters for the static model

DAY FIVE:

- ❖ **Case Studies – Group Project & Presentation**
 - Recognizing facies from core
 - Identifying facies from borehole images
 - Determine sedimentological model
- ❖ **Course Conclusion**
- ❖ **POST-TEST and EVALUATION**

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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