

Formation - Unconventional Resources - Shale Gas Fundamentals



UNCONV-EN-P



Présentiel



5 jours

This course provides an overview of unconventional hydrocarbons resources, highlighting main technical, economic and environmental issues of shale gas exploration and production

Niveau

Perfectionnement

Public

Geoscientists, reservoir engineers, petroleum engineers and managers interested in shale gas resources

Objectifs

Attendees will be able to implement the following skills:

- Discuss the fundamentals of gas shale formation evaluation
- Discuss about assessment and improvement of unconventional developments productivity
- Discuss about economic and environmental issues of unconventional developments

Pédagogie & ressources techniques

Interactive courses and exercises

Évaluation des acquis

- Trainees are assessed throughout the training through practical application phases and interactions with the trainer
- A final on-the-spot evaluation may also be carried out at the end of the course and/or at the end of each module using tests designed to verify the learners' understanding and assimilation of the knowledge linked to the training objectives

Prérequis

No prerequisites are necessary to follow this course

Responsable

IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Programme

WORLD ENERGY DEMAND & SHALE GAS

0.5 day

Introduction, definitions, world data resources.

HYDROCARBONS IN UNCONVENTIONAL SETTINGS

1 day

Exploration aspects: geology and geochemistry.

SHALE GAS STIMULATION

1 day

Hydraulic fracturing, micro-seismicity interpretation, stress and mapping of fractures.

Status on fracturing technologies.

Completion design, well orientation, spacing, re-fracturing, fracture load recovery, tracers.

SHALE GAS PETROPHYSICS

0.5 day

Status of petrophysical evaluation of shale gas accumulations.

SHALE GAS RESOURCES

0.5 day

Evaluation of resources (in place and technically recoverable). Methodology.

PRODUCTIVITY & FIELD DEVELOPMENT

0.5 day

Well productivity assessment.

Field development case study:

- Establish well pattern.
- Estimate the plateau rate and duration.
- Build field development spread-sheet.

ECONOMICS

0.5 day

Economics of development of shale gas - Production costs.

ENVIRONMENTAL IMPACT

0.5 day

Discussions around controversial issues:

- Impact on water resources by handling large volumes of water. Water treatment.
- Impact on aquifers by drilling and fracturing.
- Environmental impact of shale gas drilling projects.
- Environmental impact of chemicals.

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Pour vérifier l'accessibilité de cette formation à une personne en situation de handicap, contactez notre référent à l'adresse suivante :
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