

Shale Oil & Gas Evaluation & Development

Master the essentials of Shale Oil & Gas Evaluation & Development in this comprehensive course, designed for professionals seeking to enhance their expertise in the energy sector.



Course Information

Course Overview

The ongoing success in developing a wide variety of shale and tight rock reservoirs in North America has had a dramatic impact on markets, development activities and the training requirements for the industry. With natural gas offering an energy source that significantly reduces carbon dioxide emissions compared to coal, favourable gas prices in the future could push shale even further onto the scene as a game changer in most markets, offering an exciting step towards energy self-sufficiency. There are significant challenges to identifying commercial opportunities and to developing these resources but most of their development potential exists outside North America and so it is inevitable these reservoirs will continue to grow in global importance.

This course will walk participants through the evaluation and development of shale and tight gas, using the North American experiences as a benchmark. Information will also be provided on how shale gas analysis differs from that of conventional, oil shale, shale oil, CSG, and tight reservoirs. However, the primary objective of this course is to provide participants with a solid basis for identifying, evaluating and developing shale as a viable gas play.

Course Schedule

The course will commence at 9:30 and end at 13:30 (AEST) on each day.

Benefits of Attending

- Understand the key differences between shale and tight rocks
- · Learn the essential geological features needed for commercial development
- Review the limitations to defining recoverable oil and gas volumes
- Become familiar with the drilling and completion options and technical challenges
- Learn what technical processes and tools are applied to designing and evaluating hydraulic fracturing
- Review the common mistakes in testing, evaluating, and characterizing development targets
- Recognise the major differences in the various commercially successful plays

Who Should Attend

This course will benefit those already familiar with the basic concepts & terminology used in CSG or petroleum development. It will provide a technical review of key exploration, development & optimisation concepts required to develop oil & gas from shale reservoirs.

- · Geologists, engineers, consultants and service providers who are involved, or might become involved, in evaluating and developing shale reservoirs
- Managers, technical support staff, regulators, and project developers needing or wanting to learn more about the unique rewards and risks of shale reservoir exploration and development



Course Information

Course Requirements and Certificates

Delegates must meet two criteria to be eligible for an Informa Connect Academy Certificate of Completion:

- Satisfactory attendance Delegates must attend all sessions of the course. Delegates who miss more than 2 hours of the course sessions will not be eligible to sit the course assessment (if applicable).
- Successful completion of the course assessment Assessments will be ongoing and based on in-class participation and activities.

Delegates who do not meet these criteria will receive a Certificate of Attendance. If delegates have not attended all sessions, the certificate will clearly state the number of hours attended. In-person delegates will receive a printed (or hard copy) certificate and digital delegates will receive a soft copy.

Course Faculty _



Steve Hennings, M.S., P.E. Principal Owner and Senior Unconventional Engineer

Steve is a licensed Petroleum Engineer and technical trainer. He worked twenty years for a mid-size oil & gas operator, gaining experience in production, completions, computer simulation, and reservoir engineering before establishing an unconventional reservoir consulting firm in 2008. That year he also began delivering technical training courses on hydraulic fracturing and unconventional reservoir analysis for the Society of Petroleum Engineers and other training organizations.

Steve has provided onsite support in over twenty petroleum basins in nine countries, including multi-year assignments as technical lead for the largest continental U.S. oil field, the largest underground coal mine in Australia, and a major U.S petroleum technology center. He was lead author on a technical paper about unconventional reservoirs that earned the prestigious Stefanko Award, and he is the author of the 2023 book "Shale Oil & Gas: Criteria and Cutoffs".

Course Outline

Shale Overview

- Curious and Confusing Terminology
- Historical and Current Review of Activities
- · Optimizing Development Teams
- Review of Historical and Ongoing Technological Advances

Shale versus Tight Rock

- Comparing unique characteristics
- Essential differences in log analysis
- Essential differences in core analysis
- Development differences
- Hydraulic Fracturing objectives and concerns
- Influence of CSG and Oil Shale on shale analysis

Reservoir Evaluation

- · Adsorption versus Absorption
- Importance of Gas Content Analysis
- S1 and other Pyrolysis Considerations
- Organic Maturation Factors
- · Importance of Liquid Yield
- Bashing TOC Analysis

Production and Recovery Analysis

- DCA
- Volumetrics
- Critical adsorption analysis
- Production Correlations

Sweet Spot Analysis

- Insitu Stress
- Lineaments
- Flexure
- Financial Features
- Illitization

Hydrocarbon Windows

- · Petroleum generation process and terms
- Four kerogen types
- · Pyrogram influence on windows
- Boundaries from reflectance, Tmax and yields

Hydraulic Fracturing Design and Analysis

- Mechanics
- Equipment
- Exploration Well Testing
- Stages
- Scheduling

Fracturing in Horizontal Wells

- · Horizontal Well Essentials
- · Limited entry considerations
- Multistage technology and options
- · Stress shadow considerations to spacing
- · Critical fracturing fluids and flowback

Course Review

- Case Studies
- Terminology
- Class Exam Answers



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Academy

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Our comprehensive range of courses and programmes are tailored to meet the needs of all professionals, from aspiring specialists to seasoned experts. We partner with elite academic organisations and industry leaders with unmatched expertise in their respective fields to deliver an exceptional learning experience.

ABOUT TIMINGS, PRICING AND DOCUMENTATION

Course fees include documentation, luncheon and refreshments for in-person learners. Delegates who attend all sessions and successfully complete the assessment, will receive a Informa Certificate and any applicable partner certificates. A hard copy will be provided to in-person learners and a soft-copy will be provided to virtual learners.

REGISTRATION, PAYMENTS AND CANCELLATION

All registrations are subject to our terms and conditions which are available at www.informa.com/generic-content/terms--conditions/. Please read them as they include important information.

By submitting your registration, you agree to be bound by the terms and conditions in full. All registrations are subject to acceptance by Informa Connect which will be confirmed to you in writing.

A confirmation letter and invoice will be sent upon receipt of your registration. Please note that full payment must be received prior to the course. Only those delegates whose fees have been paid in full will be admitted to the course.

For full cancellation details, please visit www.informaconnect.com/terms-of-use/ All cancellations must be sent by email to training@informa.com.au marked for the attention of Customer Services Cancellation. Due to unforeseen circumstances, Informa Connect reserves the right to cancel the course, change the programme, alter the venue, speaker or topics. For full details, please visit www.informaconnect.com.

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