Bright Spot in-house training courses
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The courses can be organize to meet the specific needs of the client:

- to advance the technical knowledge of G&G staff
- to complete projects at a high technical level
- to compete the projects on time.

There are two ways recommended to advance the technical knowledge of G&G staff for project completions and presentations of results:

1. In-house short courses
2. Direct focused supervision of the G&G staff on a one-to-one basis using their specific projects and workstations. This results in project advancement during the training.
Bright spot in-house training courses

The in-house short courses use a teaching method consisting of:

• a practical overview of theory
• application of course material for industry project completions.

This is followed by either:

• training using the clients data and specific company software if available
• or reviewing successful application of the short course material using multiple software packages applied to a general seismic data set.

There is a focus on the teaching where participants are taught to immediately apply the course knowledge to their present work assignments.
Bright spot in-house training courses

Basic Courses: Introductory Level

Intro 1: Applied seismic theory and application
Practical application of seismic theory to seismic interpretation projects

For Junior to intermediate level Geophysical and Geological staff presently integrating Seismic and Geological information on a seismic workstation- 2 days

Intro 2: Overview of Seismic Application for Exploration and Development

For Junior level Geological and Geophysical staff: 2 days

Intro 3: Non-technical review of Seismic Application for Exploration and Development

For G&G technicians and Multi-team disciplines: 1 day
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Advanced Courses:

**Advanced 1: Seismic workstations and software**
Efficient methods of using seismic workstations and software for completion of seismic interpretation projects, learning new seismic software packages: 2 days

**Advanced 2: Structural and stratigraphic interpretation**
Structural and stratigraphic interpretation of seismic data for exploration and development projects and integration of well data to seismic volumes: 2 days

**Advanced 3: Seismic attributes Level 1**
Use of seismic attributes for mapping reservoir geometry and identification of reservoir properties for exploration and development projects: 2 days

**Advanced 4: Sequence Stratigraphy**
Practical use of sequence stratigraphy in exploration and development: 2 days

**Advanced 5: AVO and Seismic Inversion**
AVO and Seismic Inversion to map reservoir properties for Exploration and Development: 2 days
Advanced Specialized Courses

Advanced 6: Seismic Attributes Level 2
Advanced use of seismic attributes: using seismic attributes in DUGS, Kingdom, Petrel and Landmark software packages: including Coherency, Spectral Decomposition, Automatic fault picking, merging multiple attributes: 2 days

Advanced 7: Evaluation of Deltaic reservoirs
Exploration and development of deltaic reservoirs- outcrop, core, well log and seismic integration: 2 days

Advanced 8: SE Asia exploration
Methods of Exploration and Step-out Development in Mature Basins in SE Asia- moving from structural to stratigraphic traps: 2 days

Advanced 9: Presentation Techniques
Presentation techniques for focused technical presentations of project results and recommendations: 1 day
Introduction 1:
Applied seismic theory and application

Practical application of seismic theory to seismic interpretation projects
For Junior to intermediate level
Geophysical and Geological staff presently integrating Seismic and Geological information on a seismic workstation- 2 days

Topics:

- Structural Interpretation
- Stratigraphic Interpretation
- Well log and seismic integration
- Velocity and time to depth conversion
- Clastic Imaging
- Carbonate imaging
Introduction 2:
Overview of Seismic Application for Exploration and Development

For Junior level Geological and Geophysical staff

: 2 days

Topics:

• Use of workstations for seismic interpretation
• Methods for Structural and Stratigraphic Interpretation
• Integration of Geology with Geophysics
• Converting time maps to depth maps
• Imaging Geological features on seismic
Introduction 3:
Non-technical review of Seismic Application for Exploration and Development

For G&G technicians and Multi-team disciplines

: 1 day

Topics:

• Use of workstations for seismic interpretation
• Methods for Structural and Stratigraphic Interpretation
• Integration of Geology with Geophysics
• Converting time maps to depth maps
• Imaging Geological features on seismic
Advanced 1:
Seismic workstations and software

Effective methods of using seismic workstations and software for completion of seismic interpretation projects, learning new seismic software packages

: 2 days

Topics:

• Comparison of main seismic interpretation software
• Data loading and pitfalls
• Data volumes and imaging
• Learning to use selected software packages (DUGS, Kingdom, Petrel, Landmark)
• Data improvement to assist in structural and stratigraphic mapping
• Effective horizon mapping combining autopicking with manual picking
Advanced 2: Structural and Stratigraphic Interpretation

Structural and stratigraphic interpretation of seismic data for exploration and development projects. Integration of well data to seismic volumes: 2 days

Topics:

- Structural Interpretation
- Stratigraphic Interpretation
- Well log and seismic integration
- Velocity and time to depth conversion
- Clastic Imaging
- Carbonate imaging
Advanced 3: Seismic Attributes Level 1

Use of seismic attributes for mapping reservoir geometry and identification of reservoir properties for exploration and development projects

: 2 days

Topics:

- Overview of seismic attributes
- Dip, Azimuth, Instantaneous attributes
- Seismic horizon attributes, SOF
- Curvature, coherency
- Spectral Decomposition
- Lateral changes in amplitude
- Pattern recognition
Advanced 4: Sequence Stratigraphy

Practical use of sequence stratigraphy in exploration and development

: 2 days

Topics:

• Concepts
• Sequence stratigraphic surfaces
• Seismic sequence stratigraphy
• Delta and parasequence examples
• Practical application of sequence stratigraphy for exploration
• Pitfalls in sequence stratigraphy
AVO and Seismic Inversion to map reservoir properties for Exploration and Development

Topics:

- Seismic wave propagation
- Rock physics
- Seismic amplitudes
- AVO interpretations
- Acoustic seismic inversion
- Elastic seismic inversion
- Realistic application of AVO and seismic inversion to exploration and development
Advanced 6:
Seismic Attributes Level 2

Advanced use of seismic attributes: using seismic attributes in DUGS, Kingdom, Petrel and Landmark software packages: including Coherency, Spectral Decomposition, Automatic fault picking, merging multiple attributes: 2 days

Topics:

• Prestack geometric attributes
• Mapping reservoir heterogeneity
• Image enhancement and ant tracking
• Multiattribute displays
• Attribute expressions of structure
• Attribute expressions of clastic stratigraphy
• Attribute expressions of carbonate stratigraphy
Advanced 7:
Evaluation of Deltaic Reservoirs

Exploration and development of deltaic reservoirs- outcrop, core, well log and seismic integration

: 2 days

Topics:

• Structure and stratigraphy in deltaic reservoirs
• Correlation techniques in deltaic reservoirs
• Sequence stratigraphy application to deltaic reservoirs
• Integration of seismic with well data for deltaic reservoirs
• Reservoir geometry and depositional models
• Petroleum systems
• Proven producing play types
Advanced 8:
SE Asia Exploration

Methods of Exploration and Step-out Development in Mature Basins in SE Asia - moving from structural to stratigraphic traps

: 2 days

Topics:

• Proven structural play types in SE Asia
• Proven stratigraphic play types in SE Asia
• Potential new stratigraphic play types in SE Asia
Advanced 9: Presentation Techniques

Presentation techniques for technical presentations of project results and recommendations

: 1 day

Topics:

• selected depending on background of participants and present work projects
Principal Instructor: Angus Ferguson

Mr. Ferguson is the principal expert and technical coordinator for Bright Spot Consultants.

He has over 35 years of experience in both industry exploration and development projects and academic training in Canada and SE Asia.

He currently involved in:
• Industry training and project consulting for Bright Spot Consultants Pte Ltd
• Teaching commitments at the MSc Petroleum Program at Chulalongkorn University in Bangkok, Thailand

Course materials

Each participant in the course receives a complete set of digital notes. This material is a series of pdf files that give the participant a copy of every slide presented during the training course.