OIL & GAS FORECASTING

April 25-26, 2019
EUCI Office Building
Conference Center
Denver, CO
OVERVIEW

Revenue planning for jurisdictions with oil-dominant economies depends on how well oil production forecasts within these jurisdictions could be developed. Reservoir engineering techniques are required in forecasting oil production from online fields. Forecasting production from online fields often, even when done properly, still provide a conservative outlook for the jurisdiction because it excludes projects that could come online in the future. Forecasting production from probable, possible and of highly uncertain projects requires skills that go beyond the purview of typical reservoir engineering. This is where economic risking and statistical methods come in.

To conduct such forecasts, the forecaster is faced with the questions: will these new projects occur? If they occur, when could they occur? And if they occur, how could they contribute to production outlook for my region? How these questions are answered will determine how confident revenue planners can be in developing dependable short, medium and long term outlook for the region. Once that outlook is generated, another major hurdle for most technical analysts is to communicate clearly what these results mean? Without this half of the equation, the analysis results are not actionable for policy makers and other stakeholders.

This course examines techniques on how to conduct country level and basin wide forecasts. In addition, it will train you on how to communicate your results in a manner that informs planning for the future of your jurisdiction.

LEARNING OUTCOMES

- Review oil production forecasting concepts
- Discuss models used in conventional oil and tight oil forecasting
- Explain probabilistic oil production forecasting
- Describe techniques in probabilistic oil production forecasting
- Discuss popular tools used in forecasting and shortcomings/advantages of each
- Parsing historical data: impact and handling of seasonality in forecasting
- Forecasting production from highly uncertain projects
- Describe how to produce asset level, play level, region-wide or country-wide forecasts encompassing projects at different maturity levels
- Participate in hands-on activities on case studies
- Discuss how forecasts are communicated to technical and non-technical audiences

WHO SHOULD ATTEND

- Engineers, economic planners of sovereign governments with significant oil economies
- Rating agencies for sovereigns with oil-dominant economies
- Corporate finance, investment bankers or private equity personnel interested in understanding/forecasting outlook for companies and governments
- Commercial analysts and portfolio planning personnel in upstream, midstream companies
- Upstream oil and gas consultants
- Bankers and lenders to oil and gas industry
- Non-technical persons interested in understanding this crucial segment of oil and gas revenue planning
AGENDA

THURSDAY, APRIL 25, 2019

8:00 – 8:30 am  Registration and Continental Breakfast
8:30 am – 5:00 pm  Course Timing
12:00 – 1:00 pm  Group Luncheon

Oil Production Forecasting Models
• Overview of oil production forecasting models
• Classical reservoir engineering models
• Tight oil forecasting models

Models Used in Conventional and Tight Oil Forecasting
• Application of classical oil production models
  o Arps exponential, hyperbolic, harmonic models
• Application of tight oil production models:
  o Power Law, Logistic Growth, Stretched Exponential, Duong’s models

Probabilistic Oil Production Forecasting
• Overview of statistical concepts in oil production forecasting

Techniques in Probabilistic Oil Production Forecasting
• Bootstrap methods
• Decline envelopes
• Deriving type wells

Popular Tools Used in Forecasting
• Oil Field Manager Software
• DrillingInfo Software
• Microsoft Excel Spreadsheet tools

FRIDAY, APRIL 26, 2019

8:00 – 8:30 am  Registration and Continental Breakfast
8:30 am – 5:00 pm  Course Timing
12:00 – 1:00 pm  Group Luncheon

Impact and Handling of Seasonality in Forecasting
• Parsing historical data trends and breaks
• Handling seasonal trends

Forecasting Production from Highly Uncertain Projects
• Project risk considerations during forecasting
• Techniques for developing risk-weighted production outlook
AGENDA

FRIDAY, APRIL 26, 2019 (CONTINUED)

Rolling Up Entire Asset/Portfolio Outlooks: Combining Online Projects and Yet to Sanction Projects in One Place, While Honoring the Risk Profiles of Each

- Project level roll-up
- Asset level roll-up
- Country level roll-up

Conducting Regional Forecasts for US Tight Oil Plays

Overview of US Tight Oil and Gas Plays

- Permian
- Bakken
- Eagle Ford
- Niobrara
- Marcellus
- Utica
- Haynesville
- Anadarko

Regional Forecast: Deterministic Scenarios

- Reference production case
- Side cases:
  - High production case
  - Low production case

Participate in Hands-On Activities on Case Studies

Discuss How Forecasts are Communicated to Technical and Non-Technical Audiences

- Deterministic Forecasts
- Probabilistic Forecasts

COURSE INSTRUCTOR

Maduabuchi Pascal Umekwe
Commercial Analyst, Alaska Division of Oil & Gas

Dr. Maduabuchi Pascal Umekwe is a petroleum engineer and commercial analyst with Bachelors and Master’s Degrees in Petroleum Engineering, and a PhD in Petroleum Economics.

He has spent almost a decade in the oil and gas business as field engineer, development petroleum engineer and commercial analyst. His work experience spans tight oil and conventional oil and gas basins, and he conducts research on engineering, economic and environmental management aspects of US tight oil development. He has also worked as an adjunct faculty in the School of Management at the Alaska Pacific University and currently works in Alaska, where he conducts oil production forecasts, economic decision analysis, cash flow modeling and involved in various aspects of oil and gas development negotiations.
REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must sign in/out each day and be in attendance for the entirety of the course to be eligible for continuing education credit.

INSTRUCTIONAL METHODS

PowerPoint presentations and open discussion will be used in this event.

EVENT LOCATION

EUCI Office Building Conference Center
4601 DTC Blvd, B-100
Denver CO, 80237

NEARBY HOTELS

Suggested Hotel
Hyatt Place Denver Tech Center
8300 E. Crescent Parkway, Greenwood Village, CO 80111 (0.9 miles away)
Click on the following booking link:
and use Group Code: EUCI or Call Central Reservations at 1-888-492-8847 and ask for the EUCI rate of $168 under the corporate/group code EUCI. (Hot Breakfast included and Free Shuttle to and from EUCI)

Other Hotels
Hyatt Regency Denver Tech Center
7800 E. Tufts Ave
Denver, CO 80237
Phone: 303-779-1234
0.3 miles away

Hilton Garden Inn Denver Tech Center
7675 E. Union Ave
Denver, CO 80237
Phone: 303-770-4200
0.6 miles away

Denver Marriott Tech Center
4900 S. Syracuse St
Denver, CO 80237
Phone: 303-779-1100
0.7 miles away

REGISTER 3, SEND THE 4TH FREE

Any organization wishing to send multiple attendees to this event may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.

IACET CREDITS

EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

EUCI is authorized by IACET to offer 1.5 CEUs for this course.
**PLEASE REGISTER**

**OIL & GAS FORECASTING COURSE**  
APRIL 25-26, 2019: US $1495  
Early bird on or before April 5, 2019: US $1295

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How did you hear about this event? (direct e-mail, colleague, speaker(s), etc.)

Print Name ______________ Job Title ___________________

Company ___________________  

What name do you prefer on your name badge?

Address ____________________  
City ___________________ State/Province ____________ Zip/Postal Code ____________ Country ________

Phone __________ Email __________

List any dietary or accessibility needs here

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**CREDIT CARD INFORMATION**

Name on Card _______________  
Account Number ____________

Exp. Date __________ Security Code (last 3 digits on the back of Visa and MC or 4 digits on front of AmEx) ____________

Billing Address ________________  
Billing City ___________________  
Billing Zip Code/Postal Code ____________  
Billing State ______________

OR Enclosed is a check for $___________ to cover ____________ registrations.

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Substitutions & Cancellations  
Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before March 22, 2019 in order to be refunded and will be subject to a US $195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of course cancellation, EUCI’s liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our offices at 303-770-8800. EUCI reserves the right to alter this program without prior notice.