

**PTTC Workshop**  
**June 20-21, 2008**  
**NRCCE Building, Morgantown, WV**

## **“Appraising and Developing Coalbed and Shale Gas Reservoirs”**

**Presented by Creties Jenkins**  
**DeGolyer and MacNaughton**  
**Dallas, TX**

### ***Course Overview***

The purpose of this course is to provide practical insights and tools that can be used to identify and appraise coalbed and shale gas reservoirs. We will review the origin and mechanisms of gas production, discuss various techniques to analyze reservoir parameters and performance, and assess their value and limitations. Following the lectures, the class will break into groups and analyze case histories to compare and contrast different play types, appraisal activities, and development strategies. Geoscientists, engineers, and managers will benefit from the course, especially those with experience in conventional reservoirs who want to develop unconventional gas expertise. A course notebook will be provided with copies of PowerPoint slides and a bibliography of key papers.

### **Day 1: Coalbed Gas (8:00 am – 5:00 pm)**

Introduction

Origin of coal seams, coalbed gas, and cleating

Core description and petrography

Laboratory analyses

Gas undersaturation

Log analyses, hydrogeology, and remote sensing

Well testing and reservoir performance

Geocellular modeling and simulation

Appraisal and piloting strategies

Case studies: Castlegate, South Shale Ridge, Drunkard's Wash, and Spanish Peaks

### **Day 2: Shale Gas (8:00 am – 5:00 pm)**

Introduction

Geology

Geochemistry

Petrophysics

Geophysics

Well testing and reservoir performance

Drilling and completions

Resources and reserves

Case studies: Barnett, Antrim, Lewis, and Fayetteville Shales

### ***Instructor's Biography***

Creties Jenkins is a Vice-President for DeGolyer and MacNaughton in Dallas, Texas. His primary focus is training, research, and technical service work for clients in the quantitative description of

clastic reservoirs, including coals and shales. He has evaluated numerous unconventional gas projects over the past decade and has presented this course in various forms to multiple companies, universities, and professional societies. Jenkins has served as a Technical Editor, Distinguished Lecturer, and Distinguished Author for SPE, and will serve as the 2008-2009 President of the Energy Minerals Division of AAPG. Jenkins holds a M.S. degree in Geology and a B.S. degree in Geological Engineering from the South Dakota School of Mines. He is a registered professional engineer and a registered professional geologist in Texas.

***DIRECTIONS:*** The easiest access to NRCCE is from the Star City/WVU exit off I-79 north of the I-68 interchange. Turn right off the ramp if coming from the south, left if coming from the north. Follow the signs for U.S. 19 south/ Rt. 7 East (Monongahela Blvd./Jerry West Blvd.). Go through 4 lights (the 4<sup>th</sup> is at the Coliseum). At the 5<sup>th</sup> light, turn left onto Evansdale Drive. The Creative Arts Center will be on your left. A map of WVU's Evansdale Campus is attached and should help you find your way to the NRCCE building once you turn into the campus.

***HOTELS:*** For workshop attendees who may wish to stay in Morgantown, the following is a list of hotels convenient to NRCCE. The first two are right off Monongahela Blvd./Jerry West Blvd. Directions to the hotels are given from the I-79 Star City exit:

Best Western – 800-528-1234 (turn left at the third traffic light from the Interstate, hotel is immediately on the right) 366 Boyers Ave.

Quality Inn - 599-1680 (hotel is just before the WVU Coliseum on the right after the third traffic light) 1400 Saratoga Ave.

Hampton Inn - 599-1200 (turn left at the 4<sup>th</sup> traffic light on Monongahela Blvd onto Patteson Drive; hotel on left immediately after the 3rd light; 1053 Van Voorhis Rd.

Euro-Suites - 598-1000 (continue past Hampton Inn to the next light and turn right; the hotel is immediately on the left) 501 Chestnut Ridge Rd./Milan Puskar Blvd.

### ***PARKING:***

The following are suggestions for parking while attending the workshop:

Paid Parking is available in the short-term pay lot next to the WVU Greenhouse (see map; parking area #1). Rate is \$1.00 per hour and the machine does not give change. It accepts only \$1 bills and coins, so attendees need to arrive with at least 8 \$1 bills in their possession. Attendees should arrive early to use this option.

Free Parking is available in the WVU Coliseum parking lots (see map). Attendees may park at the Coliseum and ride the free university shuttle bus to the Mineral and Energy Resources Building and from there walk (5 minutes) over to NRCCE. Attendees also may choose to walk directly from the Coliseum parking lot to NRCCE. Attendees who choose one of these options should allow an extra 20 minutes to park, catch a bus/walk to NRCCE. Buses depart from the Coliseum Blue Gate every 10 minutes from 7:30 a.m. until 5:00 p.m., and every 15 minutes from 5:00 pm until 10:00 pm.

Access to the NRCCE Building is through the front (first floor) entrance for those who park at the Coliseum and take the short walk from the drop off point, or through the rear (ground floor) entrance for those who park in the pay lot next to the Greenhouse and walk to the NRCCE building. The workshop room will be immediately on the left as one enters the front entrance to the building.

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NAME: \_\_\_\_\_

COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE: \_\_\_\_\_

E-MAIL: \_\_\_\_\_

The registration fee for this workshop is \$225. This fee covers the entire workshop, continental breakfast, morning and afternoon breaks and lunch. **Please make checks payable to “PTTC”** and return with this form by June 18, 2008 to: Douglas Patchen, P.O. Box 6064, Morgantown, WV 26506-6064.

**Registration will be limited** to the first 24 who respond.

