

Farmington, NM Fruitland Coal Gas Committee
Meetings Summary
(Prepared by BURLINGTON RESOURCES)

The inaugural meeting of the Fruitland Coal Gas Committee (Fruitland Technical Steering subcommittee) was held on July 27th, 1999 and chaired by Ernie Busch of the Oil Conservation Division, Aztec District Office. Ernie assembled a focus group of industry and agency personnel to address appropriate spacing issues for the Basin-Fruitland Coal Gas Pool. The primary impetus for creating this committee was the recent Pool rule changes in Colorado where increased density drilling on 160 acres was approved for the majority of the Basin. The group determined that there was a large amount of data currently available from various sources but that it had yet to be evaluated as a whole in regards to a potential impact on the current spacing of the Pool in New Mexico. Participating companies were encouraged to provide whatever data they could to the committee with the intent of sharing this information with the entire group in order to begin a joint effort towards evaluating the effectiveness of 320-acre proration units. Ernie stressed that the OCD would like this matter to be assessed using sound scientific methodology so that recommendations could be based on easily defended data and conclusions.

Initial direction on the type of data needed and reservoir engineering methodology to be used was provided by a brief review of the 1991 ICF Resources and GRI study results. These results were first presented to the NM Division Examiner during the reopening of Case # 9420 in February 1991 for the purpose of presenting additional testimony relative to determining permanent rules and regulations for the Basin-Fruitland Coal Gas Pool. The data used in this study were primarily obtained from the Cedar Hill area of the Fairway production trend where early development first occurred and multiple existing data sets and industry studies already existed. As production trends from the Fruitland Coal reservoirs matured however, it became increasingly apparent to the participants that the original studies may not adequately represent reservoir behavior from the less prolific, underpressured (UPE) portions of the Pool. It was generally agreed upon by the group that 320-acre proration units in the Fairway were reasonable and adequate but there were significant questions raised on the ability of UPE wells to adequately drain these same spacing units.

Considerable discussion time was dedicated toward reviewing the applicability of infill efforts previously addressed by the COGCC in Colorado. Although these hearings were aimed towards determining appropriate Fruitland Coal Pool spacing units, the testimony presented to that Commission was based on a methodology deemed inapplicable by the GRI and ICF studies during the initial pooling hearings (decline curve analysis and volumetric recovery factors). The committee determined that, according to the earlier precedents set in 1988 and 1991, a different approach would be required to present a case before the NMOCD. The committee also recognized that there were likely to be considerable differences in coal production behavior between the coal seams found in Colorado (most of which were originally overpressured and more like Fairway coals) and those found in the UPE portions on the New Mexico side of the Basin. The possibility was also discussed that certain allowances may need to be made for operators in New Mexico who have leases that offset infilled areas in Colorado.

Another topic of discussion during various Committee meetings is the relationship between production from the Fruitland Coal and the underlying Pictured Cliffs (PC) formation. Some opinions were expressed that the Committee should consider the potential impact increased density drilling in the Fruitland would have on the PC and also what influence has long term production from the PC already had on the Fruitland pressures and remaining reserves. It is widely believed that for certain areas in the basin the two reservoirs are in communication with some of the historic PC production coming from Fruitland Coals and the reverse also being true. The Committee agreed that it would be very difficult to quantitatively determine what that influence has been and what the impact of infilling Fruitland Coal wells would be. It was also felt that the primary focus of this Committee was to address increased density drilling for the Fruitland only and that the questions surrounding Fruitland and PC interaction should be addressed elsewhere.

Committee participants acknowledge that there is a large disparity between Fairway wells and the production characteristics observed in UPE areas. There are also a number of known reservoir parameter and completion technique differences between the two areas. The Committee determined that it was in the best interest of all participants involved to attempt to define a boundary (or demarcation line) between the two reservoirs. As a result, another separate subcommittee was formed to address this issue. This effort continues to date and the subcommittee has already considered mapping various data to define this boundary such as: 1) cumulative and maximum production rates; 2) produced CO₂ percentages; 3) original formation pressures; 4) coal rank; and 5) water production. Although additional administrative work may be required to segregate the pool, the Committee feels it is warranted based on the distinctly different production properties exhibited by the two reservoir types.

Steady progress was being made under the guidance of Ernie Busch until his untimely passing in the later part of 1999. By the time the meetings resumed under Steve Hayden in the late spring of 2000, the general mood of industry participants and perceived urgency of this issue had changed dramatically. Rapidly escalating gas prices had brought the subject to the forefront with many members of the committee who were now pushing for a rapid resolution of the matter. The Committee as a whole still recognizes the need to acquire the proper data and employ the approved methodology for determining coal seam behavior but was beginning to look for ways to accelerate this process. A request was made for participants to submit plans by their respective companies for testing the UPE reservoir and bring them to the group for discussion. As of the date of this hearing, there are several projects currently being worked by various industry partners, some of whom may be planning to schedule hearing dates in front of the NMOCD.

Committee Meeting Dates and Participants

July 16, 1999

NMOCD, Amoco, Burlington, Conoco, Cross Timbers, Dugan, Elm Ridge, Maralex, Marathon, Williams.

August 4, 1999

NMOCD, Conoco, BLM, Questa Engineering, Burlington, Williams, Marathon, Nassau, Koch Exploration, Walsh Engineering, Bayless, Dugan, Cross Timbers, Delhi/Synergy, Maralex, Merrion.

September 22, 1999

NMOCD, Vastar, Petroleum Recovery Research Center, Burlington, Conoco, Coleman, Walsh Engineering, Cross Timbers, Dugan, Nassau, Maralex, Marathon, BP Amoco, Conoco, Phillips, BLM, Merrion, Questa Engineering, Williams.

October 20, 1999

NMOCD, Bayless, Burlington, Dugan, BLM, BP Amoco, Williams, Koch, Nassau, Phillips, Marathon, Cross Timbers, Maralex, Conoco, Merrion, Walsh.

(Temporary delay in meetings during transition from Ernie to Steve)

May 4, 2000

NMOCD, Burlington, Conoco, Hallwood, Vastar, Central Resources, BP Amoco, BLM, Marathon, Williams, Phillips.

August 17, 2000

NMOCD, Burlington, Bayless, Vastar, Marathon, Williams, Phillips, BP Amoco, Conoco.

December 7, 2000

NMOCD, Burlington, Cross Timbers, Dugan, Marathon, Markwest, Williams, Phillips, Merrion, NM Tech, BP Amoco, Devon, BLM,

January 11, 2001

(Subcommittee for delineation of line between OPE & UPE)

Burlington, Williams, Dugan, Phillips, BP, Markwest.

January 18, 2001

NMOCD, Williams, Devon, Cross Timbers, Dugan, Marathon, Burlington, Markwest, Phillips, Energen, BLM, Walsh, BP, Merrion.

April 12, 2001

NMOCD, Markwest, Dugan, Burlington, Williams, BP, NM Tech, BLM, Cross Timbers, Marathon, Phillips, Walsh, Merrion.

FTS Attendees

<u>Name</u>	<u>Company</u>
Chip Harraden	BLM
Dan Rabinowitz	BLM
Duane Spencer	BLM
Jim Lovato	BLM
Jow Hewitt	BLM
Wayne Townsend	BLM
Bill Hawkins	BP
John Mainwaring	BP
Mike Kutas	BP
Alan Alexander	Burlington Resources O&G Co LP
Bobby Goodwin	Burlington Resources O&G Co LP
Chris Clarkson	Burlington Resources O&G Co LP
Doug Mussett	Burlington Resources O&G Co LP
Eddie Pippin	Burlington Resources O&G Co LP
Leonard Biemer	Burlington Resources O&G Co LP
Rick Muncrief	Burlington Resources O&G Co LP
Steve Thibodeaux	Burlington Resources O&G Co LP
Yolanda Perez	Conoco, Inc.
Gary Markestad	Cross Timbers Operating Company
Robin Tracy	Cross Timbers Operating Company
Patrick Hegarty	Delan/Synergy
Curt McKinney	Devon Energy Corporation
Gary Kump	Devon Energy Corporation
Jan Wooldridge	Devon Energy Corporation
Jim Abbey	Devon Energy Corporation
Kurt Fagrelus	Dugan Production Company
Rich Corcoran	Energen Resources Corporation
Don Johnson	Koch Exploration
Mickey O'Hare	Maralex Resources
Scott Landon	Marathon Oil Company
Kevin Stowe	MarkWest Resources Inc.
Scott Daves	MarkWest Resources Inc.
George Sharpe	Merrion
Gary Johnson	Nassau Resources
Steve Hayden	NMOCD
Josh Cooper	Phillips Petroleum Company
Steve Jones	Phillips Petroleum Company
Paul Onsager	Questa Eng.
Tucker Bayless	RL Bayless
Paul Thompson	Walsh Engineering
Ralph Hawks	William Energy Services

Working Interest Attendees of 5/4/01
BR Infill Pilot Meeting At BR's Farmington, NM Office

<i>Name</i>	<i>Company</i>
Steve Thibodeaux	BR
Alan Alexander	BR
James Strickler	BR
Jim Troiano	BR
Eddie Pippin	BR
Leonard Biemer	BR
Bobby Goodwin	BR
Chris Clarkson	BR
David Sees	Texaco
Lance Brzowski	Texaco
Josh Cooper	Phillips
Craig Moody	Conoco
Robin Tracy	Cross Timbers

***Attendees of 5/4/01 BR Infill Pilot
Meeting With BLM***

<i>Name</i>	<i>Company</i>
Chris Clarkson	BR
Alan Alexander	BR
Peggy Cole	BR
Jim Troiano	BR
Leonard Biemer	BR
Mike McGovern	BR
Eddie Pippin	BR
James Strickler	BR
Steve Thibodeaux	BR
Bobby Goodwin	BR
Joe Hewitt	BLM
Joel Farrell	BLM
Jim Lovato	BLM
Wayne Townsend	BLM

***Attendees of 5/8/01 BR/NMOCD Infill Pilot Meeting
At BR's Farmington, NM Office***

<i>Name</i>	<i>Company</i>
Jim Troiano	BR-land
Alan Alexander	BR-land
James Strickler	BR-land
Steve Hayden	NMOCD
Frank T. Chavez	NMOCD
Steve Thibodeaux	BR-Geo
Eddie Pippin	BR-Geo

San Juan Basin Working Committee Agenda

May 8, 2001
Burlington Resources
Atrium Conference Room
9:00 a.m. – 12:00 p.m.

- A. Livestock / Grazing Issues**
Cattlemen's Association
Mike Mankin Conoco
- B. Production Inspection Program**
Vicente Balderaz BLM
Fred Oneyear BLM
- C. Farmington RMP / EIS Revision Status Update**
Steve Henke BLM
- D. Road Policy**
Paul Thompson
Terry Johnson BLM
- E. Fruitland Infill Update**
- F. Carson National Forest**
Mark Catron Forest Service
- G. State of NM Imaging Project**
Frank Chavez NMOCD
- H. NMOCD Electronic Filing**
Frank Chavez NMOCD
- I. APD Streamlining Process**
John Zent Burlington Resources
Danny Jaap Phillips
- J. Other Issues**
Discussion
Next Meeting

Industry Representatives
Breakfast 7:00 AM Cindy's Restaurant
400 W. Main

San Juan Basin Working Committee
Attendance 5/8/01

Name	Company
John Zent	BR
Jim Ball	BR
Danny Jaap	Phillips
Peggy Cole	BR
Alan Alexander	BR
Tucker Bayless	Bayless
John Caldwell	BR
Linda Dean	BR
Mike McGovern	BR
Martin Chavez	U.S. Forest Service
Camela Hooley	U.S. Forest Service
Brian Tellar	Marathon
Connie Dinning	Merrion
Steve Salzman	BLM – Santa Fe
Walter Dueease	Marathon
Frank Gray	Texaco
Buddy Shaw	BP
John Roe	Dugan Production
Larry Schlotterbach	Texaco
Mark Catron	U.S. Forest Service
Joel Furrell	BLM
Steve Henke	BLM
Jim Lovato	BLM
Paul Thompson	Walsh Engr.
John Byrom	D.J. Simmons, Inc
Coary Markestud	Cross Timbers
Dave Wacker	Conoco
Terry E. Johnson	BLM
Jeff Ivy	Williams
Mark Bareta	Williams
Frank Splendoria	BLM
Ray Sanchez	BLM
Bill Blackard	FIMO
Dale Wirth	BLM/FFO
Van L. Goebel	BR
Don Johnson	Koch Exploration Co.
Patsy Clugston	Phillips
Bob Wirtansen	Phillips
Ed Hasely	BR
Gregg Wurtz	BR
Lee Otteni	BLM

Bennie Armenta	El Paso Field Service
Roy Fagan	El Paso Field Service
Joe Velasquez	El Paso Field Service
Doug Thomas	Energen Resources
Rob Stanfield	BR
Chuck Smith	BR
Bob Gallagher	NMOGA