Fidelity Exploration and Production Company is the largest gas producer in the State of Montana. Its gas production comes from three main areas:

- Bowdoin Dome in North Central Montana.
- Coalbed natural gas in the Powder River Basin.
- Cedar Creek Anticline in Southeastern Montana.

Fidelity has increased its production in the Cedar Creek Anticline from 5 mmfcd to 68 mmcf/d in the last 10 years. Drilling, completion, and operation techniques have improved these shallow dry gas wells over the course of the past 10 years, and Dennis Zander; Area Operations Manager for the Northern Rockies Asset Team of Fidelity, touches on the success and failures of this production increase.
2008 AAPG
San Antonio, TX
April 23rd, 2008

Dennis Zander
Area Operations Manager
• Fidelity produced an average of **137.8 MMCFD** gross from Montana properties in 2007

• Production today has increased to a current level of **142.0 MMCFD**
Top Montana Gas Producers 2006

- FEPC: 41%
- All Others: 34%
- Noble: 5%
- Klabzuba: 7%
- Devon: 13%
Oil & Gas Map of Montana

- Bowdoin Dome
- Cedar Creek Anticline (Baker)
- CBNG
Fidelity-Operated Production in Montana for 2007

- Baker: 65.4 MMCFD
- Bowdoin: 37.9 MMCFD
- CBNG: 34.5 MMCFD
Cedar Creek Anticline

Geologic structure extending 120 miles in length along the southeastern edge of the Williston Basin
Gas Production

• **Biogenic Gas**
  – Produced from the shallower, Cretaceous-age formations

• **Judith River Formation**
  – Found at a depth of approximately **800** feet
  – Produced **105 BCF** of gas before conversion to a gas storage reservoir

• **Eagle Formation**
  – Found at depths between **1,200 to 1,800** feet
  – Produced **197 BCF** to date and is the target of our current development program
Baker Field Map

- Baker, North Eagle Unit
- Cedar Creek Unit 8A
- Cedar Creek Unit 8B (Eagle & Judith River)
Baker Field

- Shallow gas on the Cedar Creek Anticline discovered in 1915
- 1st produced gas from Judith River Formation; now a gas storage reservoir owned & operated by Williston Basin
- Fidelity produces gas from 850 wells in the Eagle Formation
- Eagle Formation: shallow (~1,500’), thick (300’ to 500’) reservoir
- Very shaly sandstone reservoir; hence, very low permeability
BAKER #WELLS vs #COMPLETION ZONES
Baker # Wells vs. # Recompletion Zones

- **WELLS#**
- **FRACS#**

2001 2002 2003 2004 2005

# WELLS / # COMPLETION ZONES

0 10 20 30 40 50 60

FIDELITY Exploration & Production Company
Baker Field

- Field developed on 320-acre spacing per 1961 Order
- 2nd well per 320 allowed per 1997 Order
- Spacing waived in Baker North Eagle Unit in 1994
- Spacing waived in Unit 8A & Unit 8B in 2001
- Order to allow up to 10 wells per 320 on non-Unit lands granted in 2003
- Spacing waived in Unit 8B in North Dakota in 2005
Increased Density Well Pattern

Governmental Section (640 AC) Non Unitized Lands

- W/2 320 Acre Spacing Unit
- E/2 320 Acre Spacing Unit
- Existing 2 Wells/320 Acre Spacing Unit
- Increased Density Well Locations
KCL PILOT TEST

- FRAC 5 WELLS KCL BASED N₂ FOAM
- FRAC OFFSETS FRESHWATER N₂ FOAM
- AVG. INCREASE 30 MCFPD/WELL
- AVG. RATE INCREASE 21 %
- AVG. EUR INCREASE 97 MMCF/WELL
- AVERAGE EUR INCREASE 34%
Northern Rockies Asset Team