The Wyoming Enhanced Oil Recovery Institute
3RD Annual Wyoming CO₂ Conference

LaBarge Field & Shute Creek Facility

Skip Thomas, CO₂/Helium Sales Manager
June 24, 2009
Agenda

• Gas Process Facilities
• Carbon Dioxide Sales Pipeline Infrastructure
• New Investments
• Shute Creek Compressor Expansion Project Status
LaBarge

- **History**
  - 1981: Exxon drilled exploration wells
  - 1984: Shute Creek construction
  - 1986: First production

- **Raw gas stream**
  - Produced from the LaBarge Madison reservoir
  - Average well produces 45 MMCFD
  - Gathered to the Black Canyon Processing Facility
  - Transported 40 miles to the Shute Creek Treating Facility
Shute Creek Treating Facility

Inlet Gas
- Capacity: 700 MMCFD
- Composition: 66% CO₂, 21% Methane, 7% Nitrogen, 5% Hydrogen Sulfide, 0.6% Helium

AGI
- 2005 startup
- Re-injects naturally occurring hydrogen sulfide (35 MMCFD) and CO₂ (25 MMCFD)

Co-Generation
- 2004 startup
- 108 MW

Helium Sales
- 4 MMCFD liquid & gaseous truck sales
Shute Creek Sales Compressors
Black Canyon and Shute Creek

Black Canyon

Shute Creek Treating Facility
Shute Creek CO$_2$ Handling

Global Industry Bests…

• World’s largest Selexol plant
• World’s largest helium recovery plant
• Longest and largest sour gas pipeline in the US
Carbon Dioxide Sales

ExxonMobil CO₂ Pipeline

ExxonMobil Custody Transfer Meter

Current Capacity: 230 MMCFD
Shute Creek to Rock Springs: 48 mile, 24 inch pipeline
24/20 Interconnect to Bairoil: 112 mile, 20 inch pipeline
Delivery Pressure: 1750 psi
Quality: >95% CO₂ by volume
Remotely operated meter stations
Supplying enhanced oil recovery and industrial users
Investing for the Future…

**CFZ™ Test Facility - $100 Million**
- CFZ™, or Controlled Freeze Zone™, technology could make carbon capture and storage more affordable and significantly reduce Greenhouse Gas Emissions
- ExxonMobil is in the process of constructing a commercial demonstration plant at LaBarge

**CO₂ Sales Expansion - $72 Million**
- It is our goal to safely and efficiently extract additional CO₂ for sales as market conditions warrant
- Project will increase sales capacity by nearly 50% and significantly reduce overall emissions

**Carbon Capture and Sequestration Project**
- ExxonMobil partnering with the University of Wyoming in CCS project funded by the Department of Energy
- Project in scoping phase with a $1.6 million grant from the DOE
Shute Creek CO₂ Sales Gas Expansion Project

Project Purpose
• Install 23,000 hp of CO₂ compression (capacity increase of 110 Mmcfd)
• Fully utilize the capacity of the CO₂ pipeline network departing the Shute Creek Facility

Multi-disciplinary Engineering Design Team
• ExxonMobil Operations, Engineering, and Project Management team
• Contract detail design engineering team

What the Team Accomplished
• Project fully funded at $72 Million November 2007 ($55M committed as of June, 2009)
• Detail design effort initiated November 2007 (95% complete)
• Began receiving major equipment and materials in the field February 2008
• Initiated field construction activities July 2008

Next Steps
Completed Phase 1 civil construction activities May 2009
Begin remaining construction activities June 2009
Completion erection of MP/HP and LP Pre-Engineered Metal Buildings (PEMB)
Receive and set compressor units July-August 2009
Start-up scheduled 2nd Quarter 2010
Shute Creek CO₂ Sales Gas Expansion Schematic

**SHUTE CREEK TREATING FACILITY**
- **MP VENT**
  - 200 #
- **LP VENT**
  - 60 #
- **# 2 MP CO₂ FLASH (2 trains)**
- **# 3 MP CO₂ FLASH (2 trains)**
- **SINGLE EXISTING LP COMP.**
  - 5,000 HP
- **SALES EXPANSION LP COMP.**
  - 3,000 HP

**SHUTE CREEK CO₂ SALES**
- **FOUR EXISTING MP/HP COMPS.**
  - 11,000 HP
  - 20,000 HP
- **SALES EXPANSION MP/HP COMP.**
  - 11,000 HP
  - 20,000 HP
- **LABARGE (B 31.3)**
- **DOT 195**
- **2550 # TO SALES**
## Carbon Dioxide Sales Organization

<table>
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THANK YOU