Partner Experience:
Western Gas Resources, Inc.

Don Anderson

Natural Gas Star
Producers and Processors Workshop
Wyoming

Outline

- Western Gas Resources’ Gas STAR Program
- Methane Emission Reduction Activities
- Successes and Challenges
WGR’s Gas STAR Program

- Signed MOC in 2001
- First Report for FY2002
  - Included Historical Review back to 1990
- Reports Submitted Each Year
- Cumulative Emission Reductions
  - Approximately 3 Bcf
- Awards Received in 2003, 2004 and 2005
Methane Emission Reduction Activities

- Hot Taps/Clamp and Fuse
- Convert Gas to Pneumatic Controls
- Replace Dehy with Methanol Injection
- Change Gas to Solar Powered Pump
- Compression Consolidation and Optimization
- Installation of a Stabilizer Skid
- Install Flare for Pipeline Maintenance
- Route Dehy Overheads to Flare
Methane Emission Reduction Activities

- Use IR Camera for Leak Identification
- Install Electric Starters
- Redesign Blow Down Systems/ Alter ESD Practices

Replace Dehy with Methanol Injection

- Cold winter temperatures (Wyoming)
- Low pressure gathering system
  - 50 to 400 psig
- Wet gas freezing up in glycol pumps
  - Downtime
- Solution
  - Injection of a glycol or methanol
  - To lower the hydrate formation temperature at a given pressure
Solution

- Methanol Injection
- Solar Powered Pumps
- Manufactured by Solar Injection Systems, Inc.
  - www.Sunpumper.com
Benefits Solar Pumps

- Eliminate Dehys
- Lower Emissions
  - VOC’s, methane and CO₂
- Fewer Environmental Problems
- Lower Fuel and Gas Usage
- Ease of Operations
Solar Pumps-Other Uses

- Any gas driven chemical pump
- Any electric chemical pump
- Any instrument air pump
- Examples
  - Corrosion inhibitor
  - H₂S Scavenger
  - O₂ Scavenger

Compression Consolidation and Optimization
IR Camera for Leak Detection

Successes and Challenges
Successes and Challenges

★ Buy-in with Executive Management
★ Emissions reduction is becoming part of WGR culture
★ Field Operations Manager training provided semi-annually
★ Internal Awards Program
★ Gas STAR is now an important of our corporate image

Contact Info

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Questions and Answers

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