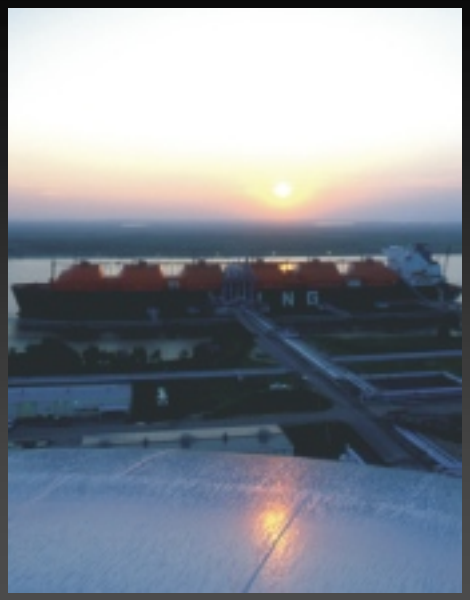
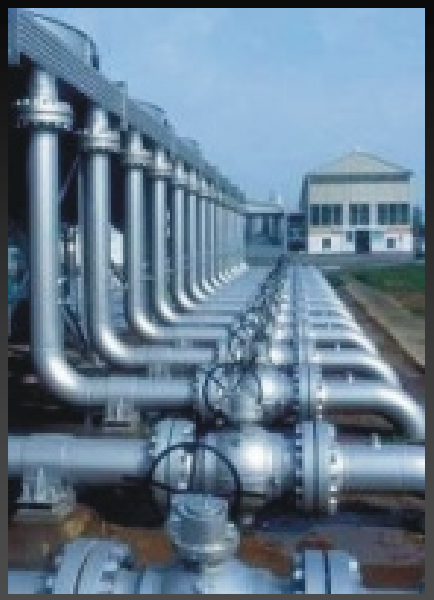
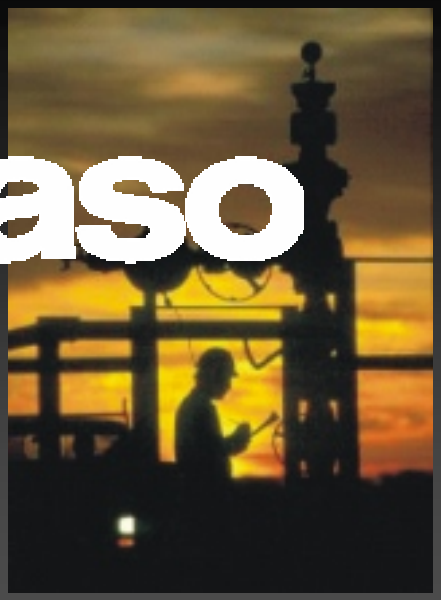





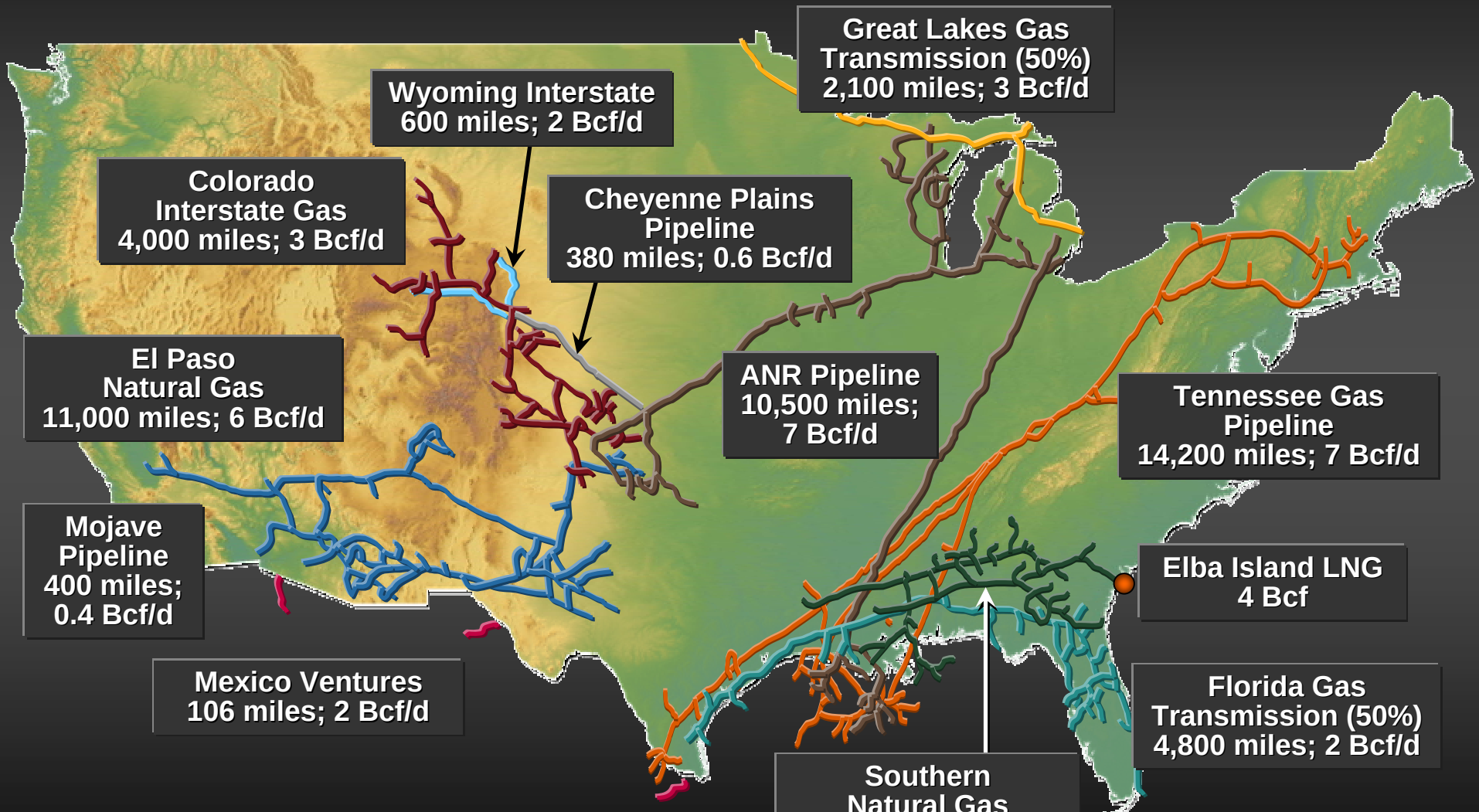
Dave Bowmaster

ANR Pipeline Inline Inspection Program History

the **place** to work
the **neighbor** to have
the **company** to own

TEAM ep
STEWARDSHIP · INTEGRITY · SAFETY · ACCOUNTABILITY · EXCELLENCE

El Paso Pipeline Group Natural Gas Infrastructure



elpaso

ILI Program Development

- Formal Program Began 1984
- Designed to address metal loss threat only
- Entire system not just HCAs
- Install Permanent Launchers and Receivers
- ≥10” OD Onshore
- Expanded in 2001 to Include ≥6” Onshore
- Has evolved to incorporate technological change as well as program experience
- Standard resolution MFL tools moving to High resolution MFL tools currently

Methodology

- Engineering analysis
  - Risk Prioritization Index used for initial risk assessment, then utilized ILI data to prioritize re-inspections
  - Pipeline Data Considered

Leak History	Class Location
Coating Type	CP Records
Construction Practices	Hydrostatic test history

  - Remediation actions reasonably conservative
  - Reinspection Intervals
    - Typical – 12 to 14 years
    - Handful – 5 to 6 years (26 of over 200 segments)
    - Based on engineering judgment
  - Other actions
    - CIS
    - Coating repair

Progress to Date

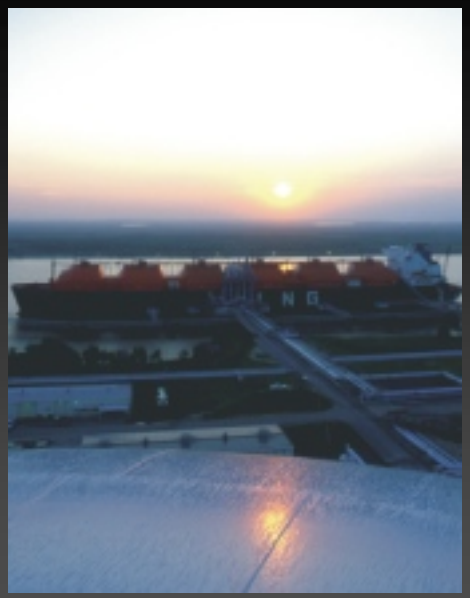
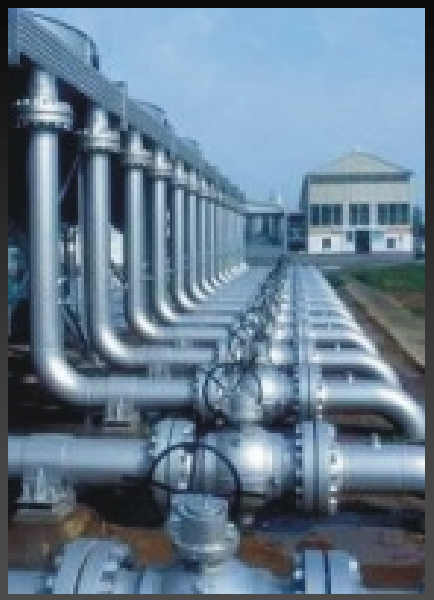
- 93% of system ≥6” onshore is piggable
- Over 8,100 miles (93% of Onshore 6” and greater) inspected 1 time
- Over 6,400 miles inspected twice
- Over 2,100 miles inspected more than 2 times

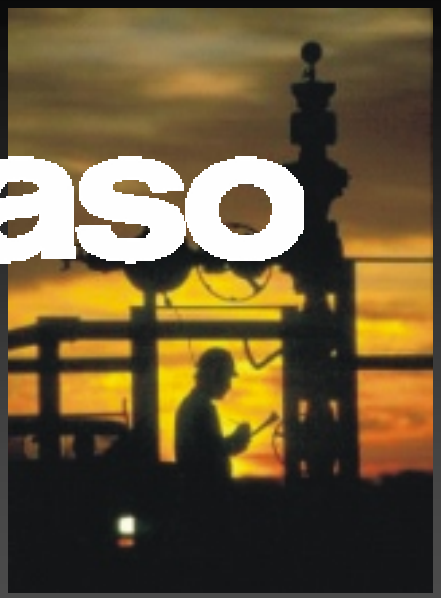
Program Results

- 4 groupings of 169 pipeline segments
  - 81 Segments inspected once
  - 72 Segments inspected twice
  - 23 Segments inspected three times
  - 3 Segments inspected four times
- In each of the groupings inspected 2 or more times there has been a significant reduction of inspection digs per mile over time
- Zero corrosion related (internal and external) leaks on pipeline segments inspected and repaired as part of this program

Conclusions

- ILI is a mature and effective and proven process for finding and controlling metal loss anomalies
- ILI vendor reports provide clear and useful information
- The establishment of re-inspection intervals based on sound engineering judgment has proven successful for ANR Pipeline Company
- While past performance is no guarantee of future success, a well managed ILI program combined with sound engineering practices has been successful in addressing the internal and external corrosion threats on ANR's system.



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ANR Pipeline Inline Inspection Program History

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Presentation

the **place** to work
the **neighbor** to have
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