

QUESTAR[®]
*Southern Trails
Pipeline*

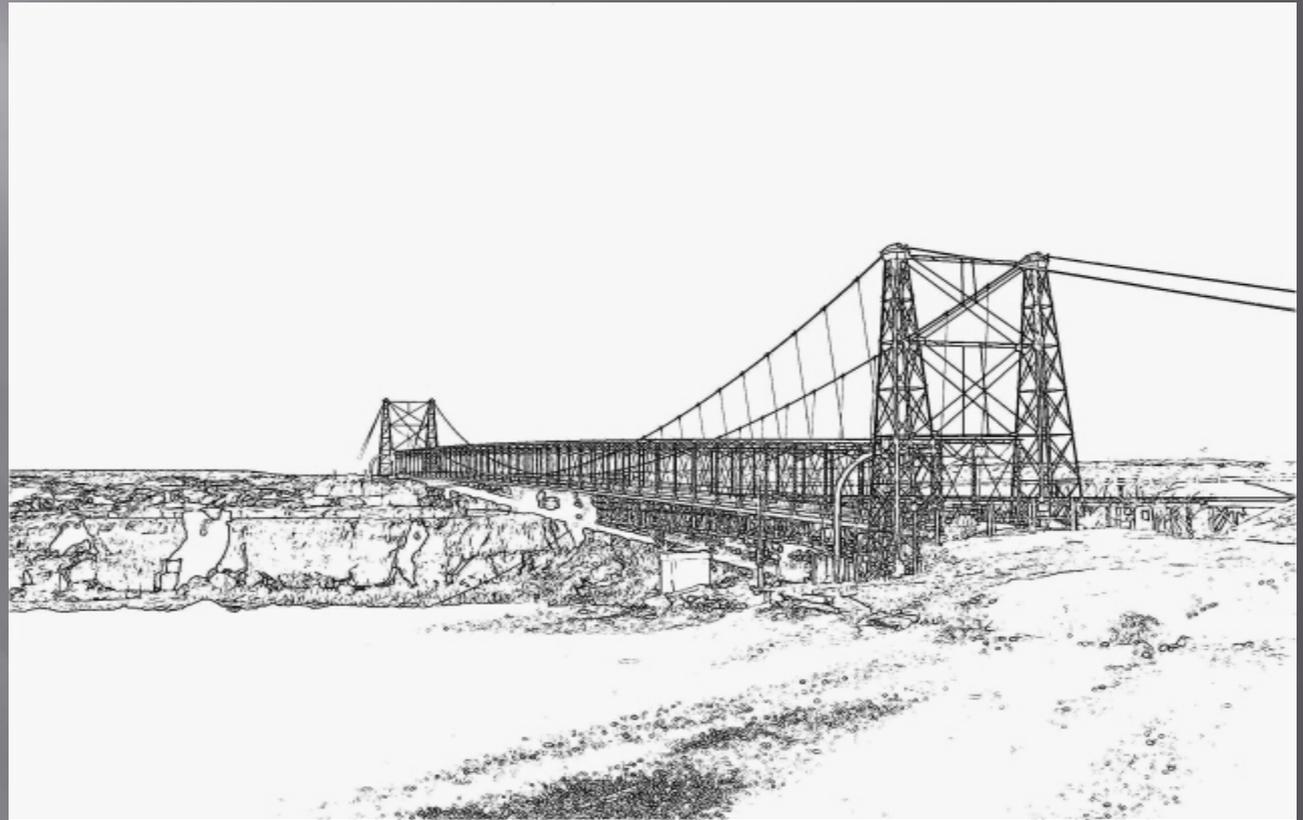
ACC Winter Preparedness
Workshop

Rick Aragon
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Fred Huffman
Operations Foreman

A Presentation to the
Arizona Corporation
Commission

October 28, 2010



**Little Colorado River Pipeline Crossing
Cameron, AZ**

Questar

Southern Trails Pipeline

Rick Aragon

- System
- Pipeline Operations History
- Arizona Delivery Points
- Current Operations

Fred Huffman

- HCA Locations
- Integrity Management Program
- In Line Inspection (ILI) survey completed and scheduled
- Scheduled installation of remote CP monitoring units

Questar

Southern Trails Pipeline - History

- 1957: Sixteen inch line was constructed for moving crude oil from Four Corners area to California refineries.
- 1977: Atlantic Richfield Company purchased the 16" line to move Alaskan North slope crude from California to Texas via Tex New Mex line.
- 1998: Questar purchased the 16" line and converted to natural gas transportation.
- 1998-2002: Permit, clean, hydrotest and constructed four compressor stations.
- Spring 2002 : Begin operations moving 80,000 MCF .

Current Operations & Delivery Sites

- Southern Trails takes receipt of gas near Bloomfield, New Mexico from three companies: TransColorado, Williams and Transwestern.
- Currently delivering gas to NTUA at three sites in Northern Arizona:
 1. Red Mesa (Schools and medical Facility)
 2. Kayenta
 3. Tuba City
- The bulk of Southern Trails deliveries enter the California markets through SoCal near Needles, California and PG&E near Essex, California.

HCA (High Consequence Areas)

<u>HCA</u>	<u>Miles</u>
Dennehotso	1.16
Kayenta	0.65
Cameron	0.97
Blake Ranch Road	0.39
King Street & Green Valley Drive	<u>0.17</u>
Total HCA Miles	3.34

	<u>Pipeline Miles</u>	<u>HCA Miles</u>	
New Mexico	78	0	
Utah	5	0	
Arizona	367	3.34	
California	<u>37</u>	<u>0</u>	
Total	487	3.34	= 0.7%

HCA Locations

- Dennehotso
- Kayenta
- Cameron
- Blake Ranch Road (Near Kingman)
- King Street (Mohave Valley)

Integrity Management

▣ Baseline Assessments

- 149 miles, Red Mesa to Cameron - Completed 2008
 - ▣ In Line Inspection High Resolution Caliper (geometry)
 - ▣ In Line Inspection High Resolution MFL (corrosion)
 - ▣ Minor issues discovered and remediated
- 196 miles, Cameron to Mohave - Scheduled 2012
 - ▣ In Line Inspection, Caliper and MFL

Integrity Management

- ▣ Cathodic Protection
 - 46 cathodic stations in NM, UT, AZ, CA

IM - Cathodic Stations



IM - Cathodic Protection

Remote Monitoring & Control

Currently in year 1 of a 3 year plan to install remote control and monitoring at all cathodic stations

Benefits

- ▣ Improved awareness
- ▣ Improved response time to outages
- ▣ Capability to easily perform on/off surveys
- ▣ Facilitates more effective interference testing

IM - Cathodic Protection

Remote Monitoring and Control



Questions?