



## Midstream Solutions

# Geographic Information System + MVP 2.0™ Chemical Program Management Tool Helps Operator Meet Strict Pipeline Integrity Regulations for High Consequence Areas.

Location: Mid-Continent Region

### Overview

An exploration and production company took over a Mid-Continent region pipeline asset from a previous Multi-Chem customer, unaware that encroaching urban expansion now positioned the gathering systems within high consequence areas (HCAs) where pipeline integrity is strictly regulated to protect human population and environmentally sensitive areas in the event of failure. Retaining Multi-Chem as chemical provider, the customer asked for a solution to precisely identify those HCAs and provide appropriate treatment in order to comply with both regulatory and safety requirements associated with maintaining natural gas pipeline integrity.

To help the customer analyze and mitigate the gathering systems for meeting regulation requirements, Multi-Chem combined their Geographic Information Analysis (GIS) software with their real-time MVP 2.0™ chemical program management tool in a complete solution.

Using the GIS software, GIS specialists first exhausted the customer's current data resources by using existing GPS coordinates, as-built maps, aerial photos and other natural resources data to establish a baseline. GIS system analysis included gas analysis, water samples, volume/pressure, line lengths, temperature, piggable vs. nonpiggable lines, actual and critical velocity, CO<sub>2</sub> partial pressure, H<sub>2</sub>S partial pressure and elevation modules.

Based on the GIS data analytics, Multi-Chem then recommended and supplied corrosion monitoring and corrosion inhibitors, providing the operator a mapbook of the pipeline with tank/coupon locations, and a color-coded map of high risk areas. In addition, the MVP 2.0™ chemical program management tool is now used to provide 24/7 access to program details, including financial data and field and lab analyses of pipeline segments identified through GIS, enabling the operator to evaluate chemical treatments and monitor cost performance in near real time.

Provided with maps and real time data that incorporates trending and is easy to pull up by year or month, the customer easily passed state audits and had data available quickly when questions were asked by the regulators.



*Multi-Chem combined their Geographic Information Analysis (GIS) software with their real-time MVP 2.0™ chemical program management tool to provide a complete solution for their E&P customer.*

Where a local company would have had to hire numerous contractors to organize this integrity data, Multi-Chem's GIS software module and MVP 2.0™ tool provides an integrated and automated solution, saving time and money while enabling the customer to focus on day to day operations.

CHALLENGE	SOLUTION	RESULT
<p><b>Identify natural gas pipeline segments</b> that fall within HCAs, and provide appropriate pipeline integrity treatment to comply with both regulatory and safety requirements.</p>	<p><b>Multi-Chem combined geographic</b> information analysis with real-time chemical program management in a complete solution that also helped optimize injection rates and proper tank placement for more efficient operation.</p>	<p><b>The customer successfully achieved</b> compliance with all regulatory and safety requirements for maintaining natural gas pipeline integrity in HCAs, with the GIS software module and MVP 2.0™ tool providing an integrated and automated solution.</p>