

New technology helps treat waste water in Marcellus Shale operations

By [Mitch Fryer](#), LEADER TIMES
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Two local companies involved in the natural gas industry are expecting SteelWater to run deep -- about 6,000 feet deep below the surface in the Marcellus Shale Basin where the thousands of gallons of water used each day to produce gas must be disposed of in an environmentally safe way.

SteelWater is the name of a joint venture by BLX Inc. and CWM Environmental Inc. that has partnered with a New Mexico company, Altela Inc., to use Altela's patented technology to help solve the water issues associated with developing gas in this region.

The gas trapped in the Marcellus Shale formation, which runs 600 miles through Ohio, West Virginia, Pennsylvania and New York, is a growing industry in Western Pennsylvania.

BLX is an independent producer of natural gas and an oil and gas exploration and development company in Kittanning.

CWM Environmental, in Rayburn, provides analytical laboratory, fuels and lubes analysis and water and waste water operations.

A new ruling in Pennsylvania that goes into effect Jan. 1, 2011, prohibits water used in the drilling of natural gas wells from being discharged into waterways unless it is first treated to remove the salts and minerals that are contained in the water that flows back to the surface.

Currently all of the waste water from the drilling process is trucked off-site to commercial and municipal sewer treatment plants at a high cost.

The new process, which SteelWater is now using in this area, desalinates and decontaminates waste water at the site without the use of the more costly, energy-intensive equipment, high temperatures and pressure of other technology, SteelWater officials said.

"No one has taken salt out of the water, this does," said Dave Kohl, president and owner of CWM. "This process cleans the water to a virtually distilled state and the treatment rate is less than \$6 a barrel."

Kohl said SteelWater is the sole distributor in the region for the Altela technology.

"Here's little Kittanning doing it," he said. "The potential for green is huge. It's a cost-effective solution for the drilling companies."

To date, Kohl said, more than 140,000 gallons of waste water have been successfully treated at a BLX gas well site near Eau Claire in Butler County, converting 85 percent of the hydraulic fracturing process

"frac" water used to access the gas, into water than can be returned to the watershed even cleaner. The remaining 15 percent of water is being disposed of in an environmentally-sound way, he said.

The Eau Claire unit treats 4,200 gallons of water per day, officials said.

"It's an environmentally-sound process," said Stan Berdell, president and owner of BLX. "The mineral and salt content is taken out and we're reusing it, not just treating it."

The Marcellus Shale has the potential to produce nearly 500 trillion cubic feet of clean-burning natural gas. Pennsylvania's Department of Environmental Protection estimates that 16 million gallons of fresh water per day will be used by the shale-gas industry in 2010 and will increase to 19 million gallons per day by 2011, according to information provided by Berdell and Kohl.

"Without an economical and sustainable water resource solution, further development of the Marcellus Shale Basin is at risk," Berdell said.

Berdell believes Pennsylvania's natural gas industry has the potential to not only produce clean energy for decades, but also to create thousands of jobs.

Kohl hopes the technology being developed here by his company will bring many of those jobs to this area.

"This is the breakthrough the gas industry has been waiting for," Kohl said.

About the writer

Mitch Fryer can be reached via [e-mail](#) or at 724-543-1303, ext. 1342.