



PRODUCTIVITY PROFILE

Carbon Data



America's Beverage Company's use of Centaur catalytic carbon has kept chloramine levels below 0.1 ppm in Big K and all of its beverage products.

At most bottling plants, activated carbon is one of the mainstays of water treatment. Recently, America's Beverage Company of Irving, TX (formerly Garland Beverage), conducted an experiment with a new type of activated carbon called Centaur from Calgon Carbon Corporation (Pittsburgh, PA).

A division of Kroger Corporation, America's Beverage produces bottled soft drinks for the grocery giant's chain of nationwide supermarkets. For water treatment, America's Beverage utilized lime, ferric sulfate, bleach, ultraviolet light and an activated carbon bed.

However, as Gary Upchurch, lab leader at America's Beverage, explains, the company was interested in extending the life of its activated carbon bed, if at all possible. In the beverage industry, activated carbon generally lasts one year for free chlorine removal applications. But for chloramine, breakthrough for conventional activated carbon occurs anywhere between two months to one year, depending upon the concentration of chemical in the source water.

"When water is your main ingredient, it is critical to have a consistent, reliable treatment system," says Upchurch. "We are very strict about maintaining our 0.5 parts per million [ppm] as our maximum tolerance for chloramine. Anything over that results in noticeable fluctuations in our flavor base and that affects the taste and smell of the soda."

In late March 1994, America's Best installed 10,000 pounds of Centaur catalytic/adsorptive carbon on a trial basis in a vessel that had previously housed standard bituminous coal-based carbon. According to Calgon, its Centaur

manufacturing process modifies the electronic properties of the carbon surface, combining the adsorption capabilities of traditional activated carbon with significantly controlled and enhanced catalytic functionality.

By the end of January 1995, America's Beverage's Centaur catalytic carbon had treated an estimated 32 million gallons of water for the company, keeping the bottler's chloramine level consistently below 0.1 ppm with no signs of breakthrough.

This result was made all the more impressive, says Duane Kirkham, quality assurance manager at America's Beverage, considering how hard the company worked the Centaur bed. "We've probably run 50 percent more water through the catalytic carbon bed than usual, because our volume has increased," says Kirkham. "I'd say the catalytic carbon has lasted the equivalent of a year and a half."

Eric Sfiligoj

◦

Reprinted from **Beverage World** April 1996

◦

◦

◦

◦

◦