

# The Artesian Hotel & Casino

## Bringing the Past into the Future



The Artesian Hotel & Casino in Sulphur, Oklahoma, is a thoughtfully-designed and enhanced version of the original Artesian Hotel, which was built in 1906 and destroyed by fire in 1962. In tribute, the new Artesian restored one of the region's most beloved hotels to its former glory by combining the original hotel's timeless style with modern amenities. The hotel site is located just outside the Chickasaw National Recreation Area, a popular and beautiful spot for hiking, biking, and other activities.

The new Artesian, however, had a problem. Its cooling system had been operating for six to eight months when hotel staff noticed that the system was scaling heavily. The system had been operating with no water treatment in place and General Water Systems (GWS) Certified Service Partner (CSP) knew that the water in the region has very high hardness.

**Making Water Work.** GWS understood the water treatment challenge and proposed the right solution. The GWS skid-mounted IntegraClean™ offer i ncluded CleanSweep™ and Wave™ chemical-free water treatment. CleanSweep™ is superior to standard filtration, especially under hard water conditions, because it does not re-suspend solids, thereby protecting the four Marley SPX fluid coolers more effectively. The eductor-less centrifugal separation system also has better zones of influence, resulting in superior basin cleaning. The Wave™ performs well on an energy-efficient sidestream, because its electro-dynamically-generated signal is four times stronger than that of its competitors. InstAlert™, always part of the Wave™ system ensemble, provides remote monitoring that wirelessly transmits flow, conductivity, and cooling system operation information. Cooling system conditions are tracked continually so that technician services can be readily dispatched, as appropriate.

**GWS Water Treatment Results.** The cooling system at the Artesian is now free of scaling and operating effectively. Operational results include:



**EFFICIENT WATER USE:** A Casino with heat producing slot machines needs air conditioning 27/7/365. With this usage in the Oklahoma climate, IntegraClean™ saves over 19,000,000 gallons of water in a year, when compared to chemical treatment. This amounts to 40% savings of their discharge water. If the chemical-free discharge was reused for a secondary purpose, this avoids the purchase of even more potable water.



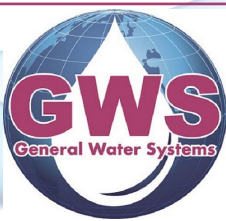
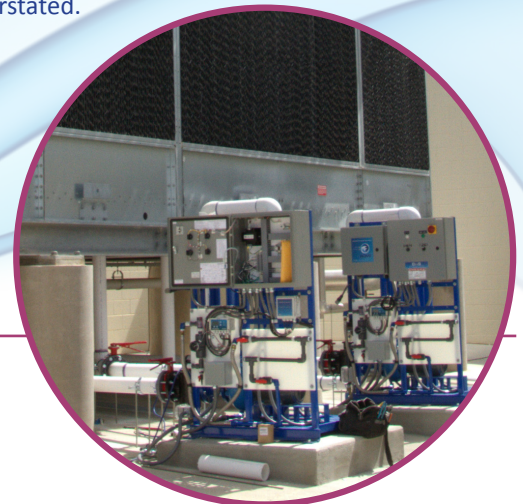
**AVOIDING WATER TREATMENT CHEMICALS:** Under GWS technologies, 5,034 pounds (2.52 tons) of chemicals will not be used, thus preventing chemical exposure in the atmosphere, ground, and water.



**LESS ENERGY USE:** Superior system cleanliness, lowest total bacteria counts (TBC), and excellent solids management all equate to strong energy savings. On this project, the cooling system is new and yet unfouled, however based on experience with chemical treatment in the exceptionally hard Sulphur, Oklahoma water, it is projected that the cooling system would experience a 10% energy cost increase very quickly if IntegraClean™ had not been used. This energy penalty would amount to \$24,000 at a power cost of 7.13¢ per kWh.

The positive impact on human health and the environment for all workers and guests who enter the properties of The Artesian Hotel & Casino and nearby Chickasaw National Recreation Area cannot be understated.

The GWS Skid-Mounted IntegraClean™ Package installed at the Artesian



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