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HBC Systems Launches Revolutionary 'GREEN MACHINE'

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Millions of Gallons of Drilling Wastewater to be Recycled Through Forward Osmosis Technology

Albany, Ore./Scottsdale, Az./Shreveport, La. (Jan. 15, 2010) – HBC Systems, a newly created joint venture between Hydration Technology Innovations (HTI) and Bear Creek Services (BCS), announced today the launch of the Bear Creek Green Machine, a unique environmentally-friendly water reclamation process for the oil and gas industry.

The Bear Creek Green Machine is the first energy efficient system for recycling the millions of gallons of fresh water used daily in the oil and gas drilling process.

This system incorporates HTI's proprietary forward osmosis membrane technology into a portable and scalable oil field wastewater reclamation system. The Green Machine provides drilling operators with a cost-effective alternative to reclaim their wastewater for reuse and will dramatically reduce the environmentally damaging and costly transportation currently used in natural gas exploration.

"The Green Machine's technology will revolutionize wastewater reclamation," said Walt Schultz, CEO of HTI and a Director of HBC Systems. "It is better for both operators and the environment. It eliminates the costly transport and disposal of contaminated reserve pit water while simultaneously reducing the need for gas drillers to source and transport additional fresh water to the well site. The net result is significant cost savings to operators and a decrease in negative environmental impacts."

In its initial market test, HBC Systems first made the Green Machine water reclamation system and services available in 2009 to oil and gas exploration and production companies drilling for natural gas in the Haynesville Shale in northern Louisiana and east Texas, primarily for the reclamation of reserve pit water left behind from the drilling



process. After the successful tests last year, the Green Machine mobile units are ready for full-scale implementation nationwide.

The mobile units process wastewater at rates in excess of 100 gallons per minute. With two machines fully operational and five more under construction, HBC Systems will rapidly add and deploy additional units to other markets such as the Marcellus Shale, which stretches from Virginia to New York, and the Barnett Shale in Texas. Given the size of the developing gas drilling market and scope of water challenges, there could soon be hundreds of Green Machines in operation.

“We chose the name ‘Green Machine’ because of the significant improvement this new technology offers to environmental impact,” said Dr. Nathan Hutchings, COO & president of BCS and President of HBC Systems. “It is the most eco-friendly water reclamation system available. Not only do the units operate with a carbon footprint that is less than any competing technologies, they also eliminate the high carbon footprint of drill water disposal and transportation.”

The forward osmosis process of the Green Machine is powered using a concentrated salt solution that is typically already located at the well site. The concentrated salt is used by most operators and combined with fresh water in the creation of completion fluid used for the hydraulic fracturing process. The Green Machine filters and recycles contaminated reserve pit wastewater to create an ultra-pure completion fluid in a single step process without consuming large quantities of energy.

The Green Machine:

- Saves drillers millions of dollars in water and transportation costs
- Reclaimed more than 125,000 gallons of reserve pit waste using less than 20 gallons of diesel fuel in field tests, which traditionally would have required 20 truckloads of transportation emission to distant disposal wells for underground injection
- Saves almost 1 million gallons of water per well according to estimates, which is nearly 20 percent of the operator’s completion fluid need, reducing the heavy diesel water trucks on the highways by as much as 150 loads per well

About HBC Systems

HBC Systems is a joint venture of Hydration Technology Innovations (HTI), a developer and manufacturer of unique forward osmosis filtration systems, and Bear Creek Services



(BCS), a leading energy-related service company. HBC Systems develops economically efficient and environmentally friendly water filtration technologies and products.

About HTI's Forward Osmosis Technology

Hydration Technology Innovations (HTI) manufactures a proprietary forward osmosis membrane material in state-of-the-art facilities located in Albany, Ore. The membranes allow water to separate from virtually all contaminants as it migrates through the membrane by the natural process of osmosis. In the forward osmosis process, water molecules flow through HTI's membrane powered by a draw solution rather than high pumping pressures found in many traditional filtration systems. Because of HTI's membrane, forward osmosis filtration systems are energy efficient, relatively low-cost and capable of filtering highly contaminated dirty water. For more information, visit www.htiwater.com.

About Bear Creek Services

Bear Creek Services, LLC, is a diversified provider of engineering and wellsite supervision, environmental consulting, trucking, fluid management and petrochemical services to a wide range of oil field operations throughout the central United States. Bear Creek developed the Green Machine, its proprietary modular oil field water reclamation system, integrating various technologies to create a unique solution to specific water treatment problems presented in the oil field. For more information, visit www.BearCreekServices.net.