



BACKWASH HOLDING BASIN MIXING Case Study



The key to effective drinking water filtration is regular backwashing of the filters, and as long as mud remains in thin suspension in a backwash holding basin, it can be pumped out.

The City of Houston East WPP found itself with a 22' thick layer of mud in a backwash holding basin that had to be removed in order to maintain the basin's pumps.

The plant rented a Pulsed Hydraulics, Inc. portable mixing unit owned by WWaterTech to mix the basin so it could be pumped clean. The revolutionary PHi mixing process requires no moving parts within the basin, and was able to loosen the mud and retain it in suspension for pumping. As mud in each zone was mixed, the PHi mixing plates were easily moved to the next zone.



PHi's Forming Plates were attached to air hoses and lowered into the mud, where carefully controlled pulses of compressed air, delivered through the Forming Plates, generated the mixing. That process helped the Forming

Plates blast their way through the mud and to the bottom of the tank.

The bubble-mass generated through PHi's Forming Plates create the mixing momentum in the basin.



After a short period of mixing, a zone is cleared of mud, and the forming plate is moved to a new zone.



The bubble-mass drags the contents of the basin in its vertical wake. When the bubble mass hits the surface, the mud is re-suspended in the water, ready to be pumped out.

Not wanting to go through the experience again, the City of Houston has purchased a mobile PHi mixing system to clean mud from their numerous backwash basins.

FOR INFORMATION:

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