

**application**     **Wastewater Treatment Plant**

**location**        **Ventura, California**

**product**         **Geotube® Containers**

The Saticoy Sanitary District (Saticoy) owns the Saticoy wastewater treatment plant. Saticoy contracts with Ventura Regional Sanitation District (VRSD) for engineering and operations expertise. The plant collects and treats the sanitary waste of approximately 400 residences, and 600 customers. Originally designed in 1955 as a simple septic tank, it was improved to secondary plus nutrient removal treatment in 2003. Plans for solids handling changed in the middle of construction. Mark Capron, Senior Engineer of VRSD, converted the existing septic tank to an Ennix (aerobic substitute) digester that achieves 40% solids reduction. The solids still needed to be transported or stored. The original plan was to send it to holding ponds and then truck to a larger treatment facility to press the solids for land filling.

#### THE CHALLENGE

Reduce the cost of trucking low solids waste to a second facility to be reprocessed, thickened, and then hauled away to landfill. Contain and reduce odors. The open ponds on site are for percolation of the treated wastewater. Placing sludge in them for reprocessing would cause odor and pollution of the groundwater. Mark Capron, VRSD Senior Engineer, needed to find an environmentally friendly, low cost system, providing solids containment and dewatering with no discernable odor typically relating to municipal waste.

#### THE SOLUTION

In early 2003, Mark investigated Geotube® technology as a solution to his problem. The Geotube® containers provided the solution. They installed two 45 ft C x 43 ft L

Geotube® containers at the site to accept solids. A small amount of polymer is added to enhance solids concentration and lower solids in the returned filtrate. There are no odors associated with the Geotube® system that captures the sludge from the Ennix treated solids. Installation was easily accomplished by laying a MCF-1210 ground cover to capture the filtrate. A drainage net is installed between the MCF-1210 and the Geotube® to provide dewatering from the bottom. Saticoy will be able to fill the Geotube® numerous times and then decide when is the best time to remove the solids directly to landfill or alternate uses. Trucking to reprocess the sludge is no longer an area of concern for Saticoy.

JOB OWNER:

**Saticoy Sanitary District**

ENGINEER

**Ventura Regional  
Sanitation District**



Saticoy Facility showing large septic tank now operating as aerobic digester prior to going to Geotube® containers seen in background.



Two large circular tanks operated in batch mode provide alternating aerobic, anoxic, and clarification treatment of the wastewater.

## PERFORMANCE

By using Geotube® Technology, VRSD has a low cost method of containing and thickening solids. Odor is no longer an issue. When it is time to remove the solids, the solids concentration is high enough to go directly to disposal. Saticoy and VRSD believe that their yearly savings is approximate \$65,000 (80+% savings) over traditional method of hauling solids at 2% concentration for additional treatment. The Geotube® is estimated at 75% of the cost of other storage dewatering systems. VRSD is now utilizing Geotube® technology at its other locations to save money while providing an environmentally friendly solution.



Raudel Juarez, VRSD Operator, insures the polymer system is ready when sludge is transferred to the Geotube®.



45 ft C x 43 ft L Geotube® is laying on a MCF-1210 ground cover which captures the clear filtrate to flow back to the headworks.



Raudel Juarez, VRSD Operator, and Kelly Polk, VRSD District Manager, stand in front of a Dewatered Geotube® that was filled to a height of 5 feet and allowed to dewater. Solids inside the Geotube® feel like hard clay when walking on the dewatered Geotube®.

[www.geotube.com](http://www.geotube.com)

The information contained herein is to the best of our knowledge accurate, but since the circumstances and conditions in which it may be used are beyond our control, we do not accept any liability for any loss or damage, however arising, which results directly or indirectly from use of this information nor do we offer any warranty or immunity against patent infringement. Geotube®, Geobag®, and Geocontainer® are registered Trademarks of Ten Cate Nicolon.

3680 Mount Olive Road  
Commerce, GA 30529  
(888) 795-0808  
Fax (706) 335-3405  
[www.geotube.com](http://www.geotube.com)

