



## *Dewatering residual from Pond at Winery*

### **Objective**

Looking for a cost effective solution to clean out their pond, a California winery contacted WaterSolve, LLC to assist in developing an approach to remove approximately 1,158 cy of sludge from the pond. WaterSolve recommended hydraulically dredging the material from the pond into Geotube® Dewatering Containers.

### **Conditioning Chemical**

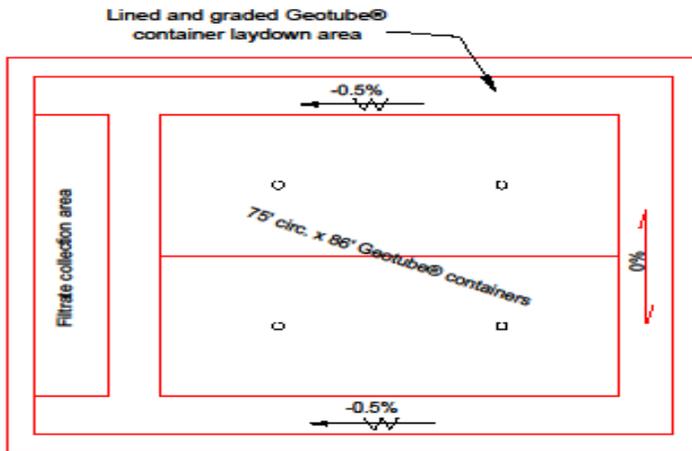
A representative sample of the pond sludge was tested by a WaterSolve technician in their facilities laboratory. Dewatering polymers were evaluated based on water release rate, water clarity, and flocculent appearance. In addition, dosing rate(s) were determined during bench-top dewatering experiments and recommendations were provided to the winery during this phase of the program. In-Situ solids were determined to be 10.8% and Solve 127 was the recommended polymer for dewatering this residual into the Geotube® container at 6-lbs per dry ton.



The 6" trash pump and floats for the dredge hose.

### Geotube® Container Sizing

Geotube® containers are manufactured from high strength polypropylene fabric and designed to allow effluent water to escape through the pores of the fabric while retaining the chemically-conditioned solids. A Geotube® estimator indicated that two 75' x 86' circumference Geotube® containers could manage the sludge dredged from the pond at 1,600 gpm. Approximately 845,000 gallons of water would be pumped to the Geotube® containers with a completed dewatered volume of 780 cy.



Proposed laydown area schematic for the Geotube® containers.

The Geotube® containers being filled.



### The Result

Prior to startup, the winery hired a local grading contractor to prepare a laydown area 190' x 95'. A 6" trash pump was used to hydraulically remove the material from the pond utilizing floats for the hose and taglines to move the dredge hose methodically around the pond. Waterways Protection, LLC was the acting agent for WaterSolve and operated the polymer feed unit making appropriate adjustments as needed to maintain the appropriate chemical conditioning.