

The Kelowna Soccer Field Demonstration Project

AquaFirst Technologies Inc. 2010

Aeration of the Fields



AquaFirst Technologies is involved in a water conservation demonstration project in partnership with the City of Kelowna in British Columbia. Two soccer fields were chosen. The sand based fields are side by side, built at the same time to the same specs with the same irrigation system. Both fields were aerated with a $\frac{3}{4}$ ' tine to a depth of 8".

Topdressing



The East field was top dressed with Lassenite at a rate of 475 lbs. per 1,000 sq. ft. The West field was left untreated.



Next we had Ion Irrigation come in to install two Aqua Flex soil moisture sensors in each field.

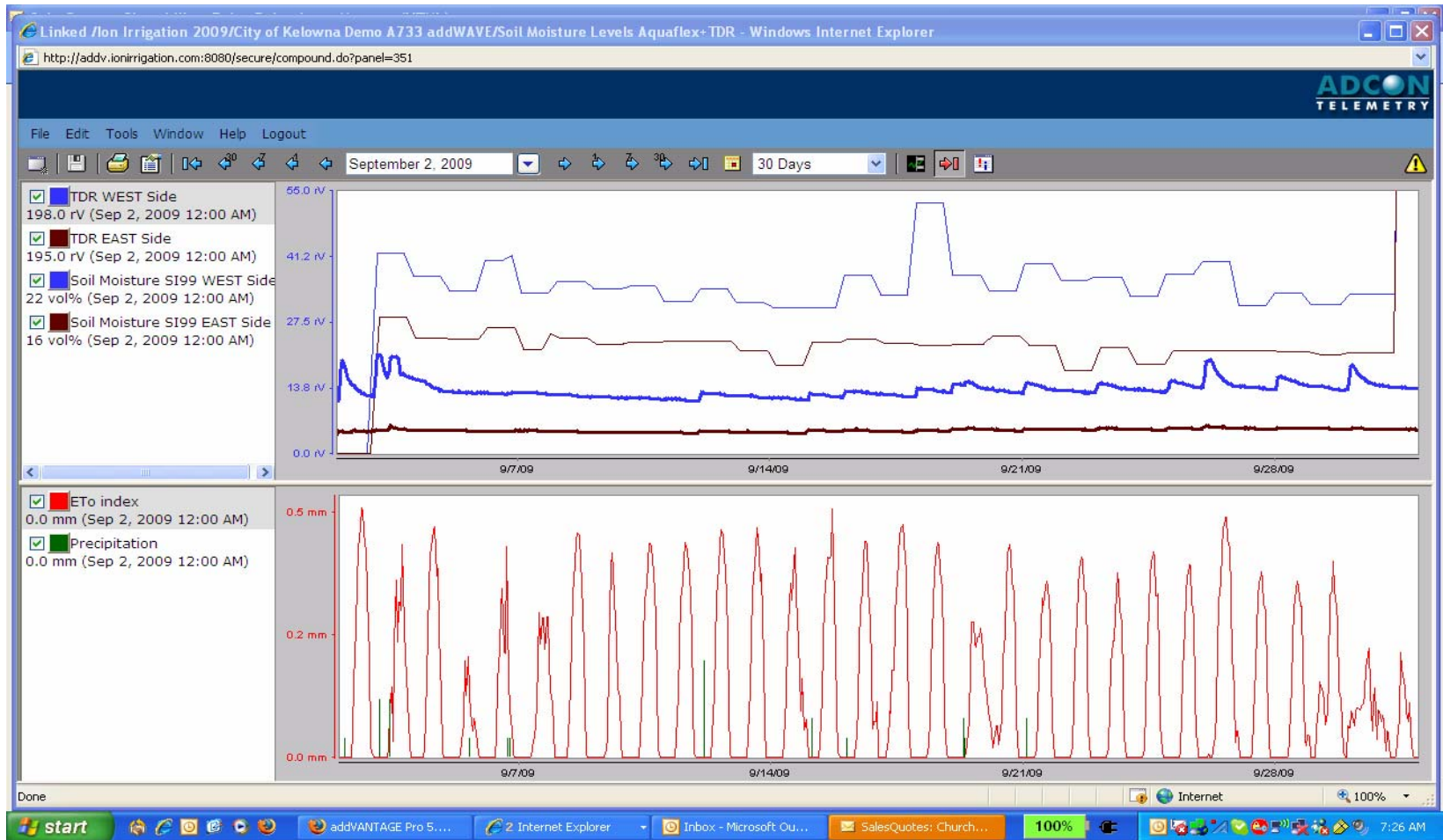


The cables from the soil moisture sensors were run out to a junction box between the fields. An Adcon radio was installed in the box. Note the antenna attached to the lid. The radio operates on batteries that have a life of two weeks before needing a recharge.



The radio in the control box relayed data from the soil moisture sensors to a weather station at the edge of the field. The radio on the weather station operates on the GPRS system and sent the data from the soil moisture sensors as well as weather data to a gateway. The gateway allowed the parks operator to then pull up the data on his computer.

Graphing the Data



The timer on the East field was cut back by 30%. This graph shows the first 30 days of data from the soil moisture sensors as well as precipitation and the ETO. Note that the East field maintains a much flatter line of soil moisture, an indication that the Lassenite is maintaining a consistent but adequate soil moisture content on 30% less water. A hand held soil moisture sensor was used to corroborate the results of the in ground sensors. They too show less variation in the moisture content on the treated field.