

# AE Progress Report 12.19.08

#Cuatro Comunidades  
#Students Itinerary  
#UNAH Students  
#Tamara

## Cuatro Comunidades

Wil, John and Tamar went to the construction site on Monday 12.15. The walls of the flocculation tank are plastered with cement, and the other remaining walls are standing with bricks. We decided the depth of the exit channel should be the same as the exit box. Originally it was supposed to be deeper. We also decided upon the exact location of the 3 drain pipes for each sed tank (one for the drain manifold, one for cleaning floating foam the top of the tanks, and one for draining the sludge box at the end of the tank). We realize it is important to define exactly where all the pipes will go in the drawings in the future.

Construction at the plant will continue until Dec 24. It will continue 27-30th and commence again on the 2nd of Jan. Ing. Wil Serrano will be in communication with Santos, the contractor while most of the office is on vacation.



## Students Itinerary

We worked on finalizing the schedule for the students coming in January: [itinerary09](#)

We are very excited to be bringing speakers to the communities, planning a health fair and meeting university students from the UNAH.

## UNAH Students

The mechanical engineering students at the UNAH (Universidad Nacional Autonoma de Honduras) presented on their work this semester researching the fabrication of the float in Honduras. Their report is attached in Spanish. They had difficulty finding materials and the prototype that they constructed did not function. They hope to continue working with us on the AguaClara project in future classes. Currently we have plans to bring some of the students to the plant in Tamara to work on the construction of the new linear dose controller. Professor Guadalupe Nunez also introduced us to Roger Ham, (roger.ham@usa.net) in charge of the laboratory space at the UNAH. They both hope to meet with Monroe in January to strategize how to continue to work with our university.



## Tamara

Antonio and John went to the plant on Thursday 12.18. They had run out of aluminum sulfate on Wednesday and had still not bought more. A member of the water board planned to go to Tegucigalpa Thursday to buy more. Water was entering and leaving the plant at about 11 NTU and the chlorine residual was low (0.2 mg/L) in the distribution tanks.

Flow had reduced from La Chorrera once again. They continue to receive a considerable amount of water, but not nearly the full capacity of the conduction line. We think this is due to problems with air in the line. We revised the plans the water board has of the conduction line but found many errors and inconsistencies in the hydraulic calculations. We did conclude that more flow should arrive than is arriving. A walking tour of the line will be necessary to better analyze the situation.

Construction continues to progress on the operator's house. The adobes are made and they are excavating for the foundation.

Both in Ojojona and Tamara, the operators have not been very faithful in filling out the second side of the daily data sheet (with sludge levels, sed tank purge times and barrel levels). It appears that Chris Bordlemeyer was correct that if all of the data is not on one sheet they will not fill it out. However, we think it would be hard to get all of the data on one side of a normal sheet. Since we haven't been doing much with the data from the second sheet, we propose getting rid of it. We can add a few critical data items, such as whether they are sending the effluent to waste and the chlorine residual in the distribution tanks, to the first side. We think it is better that the operator concentrate on filling one critical sheet well instead of doing a mediocre job on two sheets.