



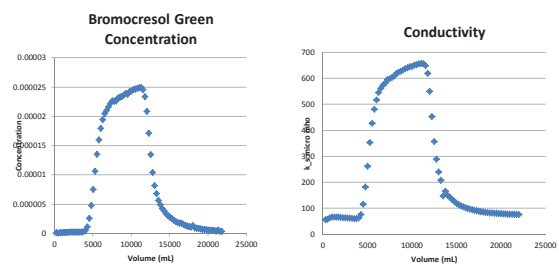


Purdue students conducting Tracer Tests  
(Students from: U.S., Ecuador, China)

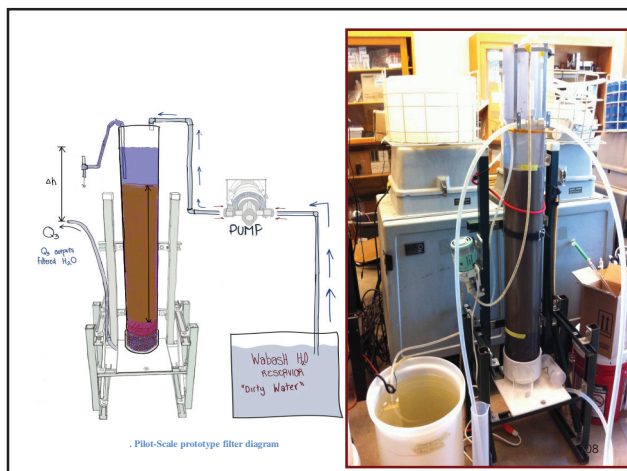


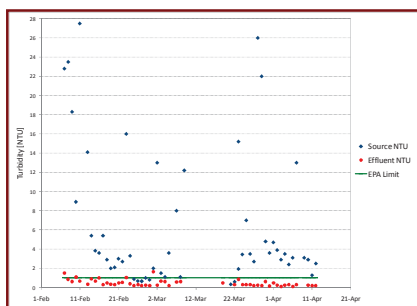
## Tracer Test Results

Concentration v. Volume      Conductivity v. Volume



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### Chlorination of Water (in batch)

- Clorox Bleach is 5.25% NaOCl
- For a dose of 3 mg/L (as  $\text{Cl}_2$ ), add 0.3 mL bleach to 5 Liters water.
- From a 60 cc Boston Round Bottle, this is approximately 8 drops



WaterGuard  
(1.2% NaOCl)  
Available in Kenya

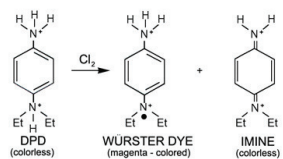
1. Remove Turbidity (particles) and dissolved organics by SSF.
2. Disinfect with chlorine
3. Measure chlorine to make sure the water has a  $\text{Cl}_2$  residual (*but how?*)

Targeted Users: School Teachers

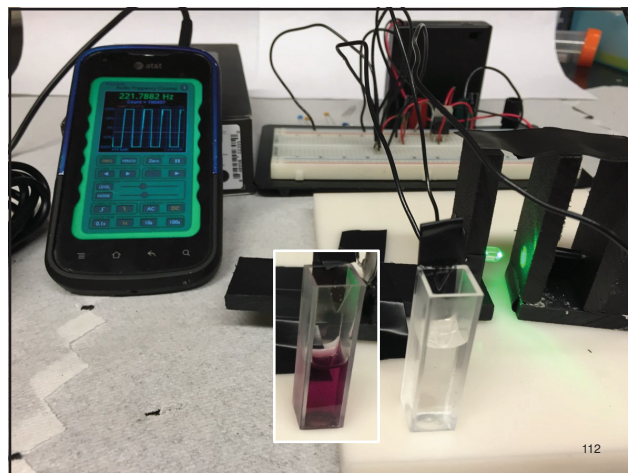
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### DPD Method

(N,N-diethyl-p-phenylenediamine )



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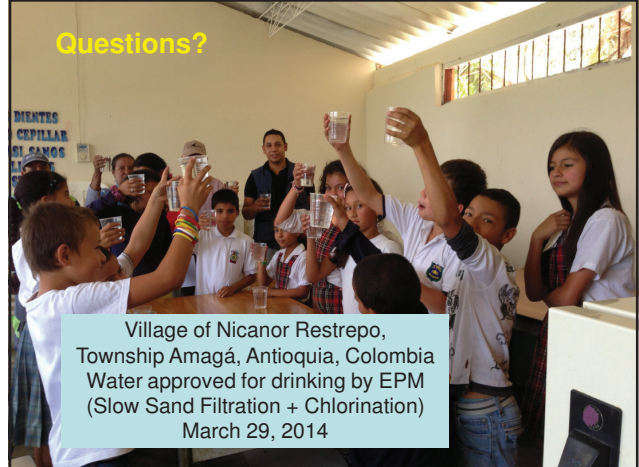


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3 Purdue students (ABE, ChemE, EEE), and 2 University of Cartagena students who installed 2 drum filters at the San Jose del Playón school in Bolivar, Colombia, August 2016.

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Village of Nicanor Restrepo,  
Township Amagá, Antioquia, Colombia  
Water approved for drinking by EPM  
(Slow Sand Filtration + Chlorination)  
March 29, 2014