



## Lifewater: Training & Drilling....

### Handpump Training Success

Thousands of wells around the world are not used because pumps don't work. Fixing broken pumps is the fastest, cheapest way of helping villages get safe drinking water.

Recognizing this, Jim and Glenn developed a hands-on pump repair training course. Months were spent developing a practical "how-to" manual detailing pump repair tips. Handpumps were donated by manufacturers around the world and were set-up on functioning wells at Quantum Lakes Resort in Houston.

In February the first ever handpump training school was run, with 20 enthusiastic students gaining hands-on experience with 12 handpumps. The night before the "final exam", all manuals were "lost" and every pump experienced catastrophic failure! There was much laughter and steep learning curves as pump cylinders fell into wells and students puzzled over left-over parts. We all learned much about trouble shooting and team work.... and every single pump was restored to full working order!

The information put into the hands of dozens of volunteers is already being used overseas to help communities regain access to safe drinking water. If you want to be trained, visit: [www.living-water.org/training.htm](http://www.living-water.org/training.htm)

### Technical Developments

**Mud Testing:** A protocol for field assessment of natural mud suitability as a drilling fluid additive was developed and 4 test kits were constructed. Thank-you Tom!

These kits need to be field-tested. Please contact us if you are working overseas where commercial bentonite is unavailable and natural clays need to be used in drill fluid.

**DC Resistivity:** A DC Resistivity meter was build and donated to Lifewater. Thank-you Mike in the Yukon! This geophysical instrument is designed to help interpret geological conditions and water table position prior to drilling. Initial testing has been positive and it will be used in Ghana early next year to help find drilling conditions suitable for the LS-100 drill rig used Liberia.

**Water Level Meter:** A prototype portable water level meter that is small, simple, rugged, and cheap was developed this year. Thank-you Bill!

We want to build and ship these units to drill crews in developing countries around the world. To do this, we need help building circuit boards and we need hundreds of feet of braided or multi-stranded wire. If you can help, please visit: [www.pbv.thunder-bay.on.ca/WellSensor.html](http://www.pbv.thunder-bay.on.ca/WellSensor.html)

### World Wide Web

Our web site was updated to show all measurements in metric! Thank-you Melanie! Please contact us if you are willing to update our figures.

We are excited that pages are now on-line for each well that Lifewater supporters have sponsored ([www.lifewater.ca/communit.htm](http://www.lifewater.ca/communit.htm)) Pictures, personal thank-you letters, well details etc. are recorded for each completed well! Thank-you Lynda!

One of the most frequently visited parts of our web site has been the extensive collection of links ([www.lifewater.ca/links.htm](http://www.lifewater.ca/links.htm)). These links were up-dated ... with key links being annotated. Thank-you Julia!

The Lifewater Canada web site is now being visited by about 10,000 people a month, with visitors reading 30,000 pages per month! We have had visitors from over 123 countries.

It is encouraging to see our web site becoming accessed more by needy countries: Burkina Faso, Botswana, Chad, Ethiopia, Ghana, Ivory Coast, Kenya, Madagascar, Mauritius, Mozambique Namibia, Rwanda, Senegal, Sierra Leone, Tanzania, Togo, Uganda, Zambia, Zimbabwe. It is exciting to see our information helping people halfway around the world... even while we sleep!

## **25,000 with Safe Water!!**

So far this year, Lifewater Canada has sponsored the construction of 11 wells in Liberia. Safe water supplies for 2 schools, an orphanage, 2 mosques and 6 towns that formerly drew water from swamps... including the community of "Joe Blow Town" ([www.lifewater.ca/communit.htm](http://www.lifewater.ca/communit.htm))



*Sister Joanna Wiah pumping water during dedication of new Lifewater well in Warta, Liberia*

Lifewater has now drilled 50 wells in Liberia since 1995. With an average of 500 people/well, 25,000 poor people now have safe water! Who could have imagined 5 years ago that Lifewater's work could have borne this much fruit! Listen to what a difference a single new well can make:

*"Dear Sir: Thank-you very much for your kindest cooperation given us during time of our request. When our town people has returned from displaced life, the water system has been destroyed. Our people were in need of safe drinking water. The Lifewater crew has given us one hand pump in Konjah Town, Cape Mount County. We wishes you many thanks and God blessing."*

*Very Truly Yours,  
Varny Kaidii, Town Coordinator*

## **The Year Ahead**

The Liberian team plans to complete 12 new wells in 2001. You can make a lasting difference in the lives of Liberian villagers by helping them obtain what we take for granted - safe drinking water. If you are interested in helping sponsor a well, write us at our address provided below or visit: [www.lifewater.ca/donate.htm](http://www.lifewater.ca/donate.htm)

## **Overhead Costs Below 5%**

Over the past year, administrative overhead costs were kept below 5%! All staff are volunteers donating their time and using their personal computers and home office space. Lifewater Canada is committed to putting donor dollars into the ground so that safe water can come out!

In addition to a special anonymous donation, a total of \$17,000 was spent:

- \$14,700: New well construction
- \$ 600: Web site maintenance, educational materials, technical projects development.
- \$ 900: Training people in NA (includes pump school in Texas)
- \$ 800: Administrative costs

These funds were raised as follows:

- 44%: Private Individuals
- 18%: Corporate
- 19%: Institutional
- 19%: United Way

If you consider all the United Way contributions as private individuals - this category becomes 63%! All the donations made by ordinary people have made the dream of clean water for all possible. If you thought your small contribution would not make a difference, think again. Contributions from people like you has helped save lives by bringing clean water to 11 more communities this past year.

## **Lifewater Publishes**

During the past year, Lifewater shared experiences learned working with drinking water in Africa.

Lifewater made a presentation at the National Ground Water Association's Annual Meeting in Nashville, TN "*Water Supplies During Conflict Situations: Problems with Dug Wells*"

Lifewater was also invited to write an international feature article for the Water Conditioning and Purification Magazine (Vol. 9:62-65) "*Well Water Quality in Liberia - A Life or Death Issue*".

## **Parle Vous Francais??**

Work has begun translating key technical information into French and post it on a French Lifewater Web Site. See progress to-date at: <http://eaudevie.virtualave.net/>  
Thank-you Cocoh in Morocco!

Please contact us if you can help translate or proof-read.

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