



Association of Professional Geoscientists of Ontario Members Newsletter

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Lifewater Canada: Using Geoscience Expertise To Help African People

By Jim Gehrels, P.Geo.

This article is a follow up article to the profile given in the December 2006 issue of Field Notes (No. 21). Lifewater Canada (Lifewater) is a registered non-profit organization co-founded by Jim Gehrels and Glenn Stronks in 1995. It is managed out of their homes and everyone is a volunteer so overhead costs stay under 5%. They use their vacation time to travel to West Africa and provide local crews with training and equipment. The 2006 newsletter is now posted on their website (<http://www.lifewater.ca>). On February 13, 2007, the Ontario Minister of Environment will be honoring this work by presenting Jim and Glenn with the government's first Emerald Award for outstanding Community Service. Wendy Diaz spoke with the President of Lifewater, Jim Gehrels, P.Geo. and asked him to write an article about his experiences.



In the early 1990's, I learned that I had Retinitis Pigmentosa, a hereditary, progressive disease that was the cause of my lost night blindness and ever decreasing peripheral vision. This diagnosis caused me to reflect on what difference I was making in this world and helped me realize that the very act of being born in Canada provided me with opportunities and wealth that most people in the world can only dream about. I started to look for a way to put my faith into action and to use my technical skills to help those less fortunate in the global community.

Then in 1994, I met a Liberian pastor who said that it was pointless to speak of the God's love when people were dying from drinking contaminated water. I was inspired to help and, together with Glenn Stronks, a MOE Drinking Water Inspector, made a plan to go to Liberia with a drill rig, train a crew, drill two wells and never see Africa again!

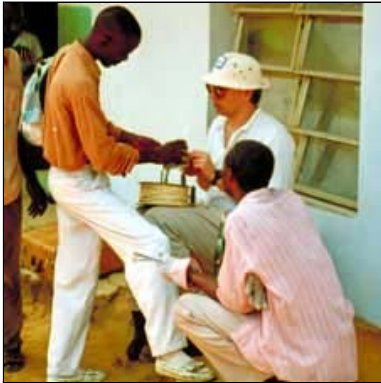
We arrived in Liberia to find that we were in the midst of a full-blown civil war. We were horrified to see young children drinking from stagnant swamps and to visit refugee camps where up to 5,000 people crowded around one hand pump. It was unbelievably sobering to meet families whose little ones were washed out to sea while defecating in the ocean or who died from running stomach after drinking from stagnant water holes.

When we came back, we set-up a registered non-profit group to help drill wells in Africa and we have regularly travelled back to Liberia to provide advanced drilling and hand pump training and to hold capacity building workshops. Things have not always been easy. The presence of thousands of UN soldiers, tanks, helicopter gunships and many military checkpoints are not a common part of our fieldwork in Canada! Rebel groups have looted trucks and drill rigs and in 1996 we were drilling when we suddenly heard shelling as rebels started attacking the city. Roads are impassable during the rainy season and during the dry season Liberia is one of the hottest, most humid places on earth causing our bodies to breakout in weird rashes and do other nasty things!

In addition, the need is overwhelming. Almost 25% of all Liberian children die before reaching the age of five and water borne illnesses are a common source of sickness and death. Nevertheless, when we start questioning the value of what we are doing, we are reminded of the story of a father &



daughter walking along beach with thousands of washed-up starfish dying in the sun. The daughter periodically stops to throw one back and the father is exasperated and says "why bother, look how many there are, what difference does it make?" The daughter replies, "Because it makes a difference to the ones I throw back!"



With the support of many people from across Canada, the USA and even overseas, we have been able to make a difference to more villages than we ever dreamed possible. Although our original vision was to drill two wells, we soon will be drilling our 200th well! It is humbling to think of how many lives these wells have saved, but we are also driven to do more. Two years ago we started building communal washrooms for schools and family latrines in rural villages. Last year we added full-time health and hygiene workers who are leading hand washing workshops in schools, providing life-saving re-hydration and diarrhea treatment skills to village women, and working with elders to lead workshops and help communities decide whether they wish to mobilize to build a well and/or latrine. We now have a team of 11 full-time workers in Liberia and three crews of part-time workers in Nigeria and Kenya. Well production has also increased dramatically and up to 60 wells per year are now being drilled.

We need to raise \$250,000 per year to fund all this on-going work. This money comes from Geoscientists, environmental companies and ordinary people and their families who make an extraordinary difference by helping poor rural communities afford the \$2,250 USD cost of a well and pump and the \$1,000 cost of obtaining basic sanitation facilities. Lifewater serves as a grass-roots portal allowing Canadians to reach out a helping hand directly to African families in need. It is amazing to watch the impact on both those who give and those who receive.

In December, we spent time in Liberia helping the team with a project to drill 30 wells for UNICEF in upcountry villages. These wells also supply refugees fleeing the civil conflict in Ivory Coast. In addition, Lifewater is working with the Liberian Ministry of Rural Development to drill 20 wells to help curb a major Cholera outbreak in Buchanan, one of Liberia's largest cities. We helped provide advanced training in controlling fluid viscosity and held several workshops on how to ensure that villages have a sense of true ownership of the water and sanitation projects and are committed to long-term maintenance.

Our volunteer work cannot continue without generous financial donations, and there is still so much to do. These people need our help -- they need your help. We very much appreciate your consideration and support.



Editor's Note: Jim Gehrels is a Professional Geoscientist working as Hydrogeologist Group Leader for the Ministry of Environment in Thunder Bay. Mr. Gehrels also helped with the Walkerton well water contamination issue in Ontario. His vision has continued to deteriorate and he is now legally blind, but continues to travel with his CNIB cane. Next month Jim and Glenn go back to Africa with a film crew from Vision TV to dedicate their 200th village well - safe water for 100,000 people! If you would like to support his work with a financial contribution or by helping translate technical guidance documents into French, please email Jim at gehrelji@yahoo.com or visit www.lifewater.ca.

For more information on APGO, please contact info@apgo.net

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Field Notes is published by APGO and is edited by [Wendy Diaz, P.Geo.](#) If you have comments or wish to contribute material to this newsletter, please contact [Wendy Diaz, P.Geo.](#), or [Norman Williams, P.Eng.](#), Executive Director/Registrar.

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