



**FINAL REPORT TO THE ANN CAMPANA JUDGE FOUNDATION
April 30, 2012**

Project: Two new water wells in Honduras: Esperanza Elementary School in Ojo de Agua and community well in Santa Maria.



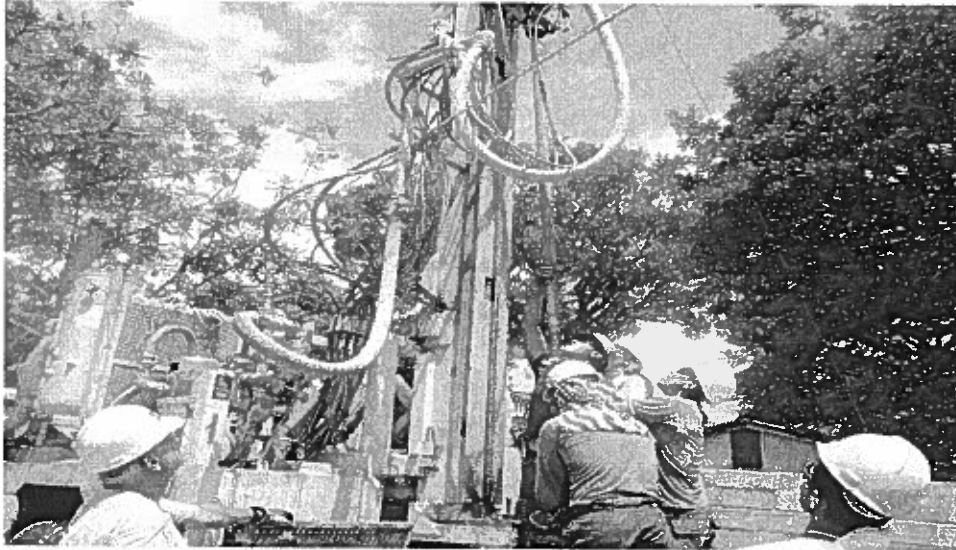
Kids checking out water well project at Esperanza School, Ojo de Agua, Honduras

Project Description

The Esperanza Elementary School in the village of Ojo de Agua, Yuscaran district, Honduras, is very special to our Texas Water Mission (TWM) as the children of our Honduran drillers attend this school. School days are cut to a few hours a day because of the lack of clean drinking water for the children and teachers and because of the lack of water for bathrooms. The village of Ojo de Agua consists of approximately 120 families, with approximately 850 individuals. The GPS coordinates at the site of the new well are: N14-02.986°; W86-52.137°; elevation: 2105 ft.

Representatives of the Ojo de Agua community water board requested assistance with the construction of a new water well at the school to provide drinking water and to be used at some time in the future, when additional funding is available, for an electric pump to provide water for a new sanitation system for the bathrooms. All deed and title paperwork was properly prepared and submitted by the community water board.

On May 26, 2011, 6 volunteer drillers from the Texas Water Mission joined 3 paid Honduran drillers and approximately 6 community volunteers to prepare the site and begin drilling the new water well. The Honduran team had constructed a raised platform facing the drilling rig operation table, in order to facilitate the work of the drilling assistants, as the well site was located on fairly steeply-sloping ground. The drilling crew was under the direction of Francisco Torres Beltran and TWM volunteer Jack Martin.



Hondurans and Americans working together at Esperanza School in Ojo de Agua

Our TWM hydrologist, Jack Robertson, a volunteer from Arizona, reported that initial drilling reached 77ft. the first day before an afternoon thunderstorm forced the temporary shutdown of drilling. The rock consisted of hard and dense beige-gray welded volcanic tuff, sometimes referred to as ignimbrite. The next day, the crew made excellent progress, reaching a depth of 207 ft. through several thin zones of clay and clay stone but encountering black igneous rock between 200 and 202 ft.

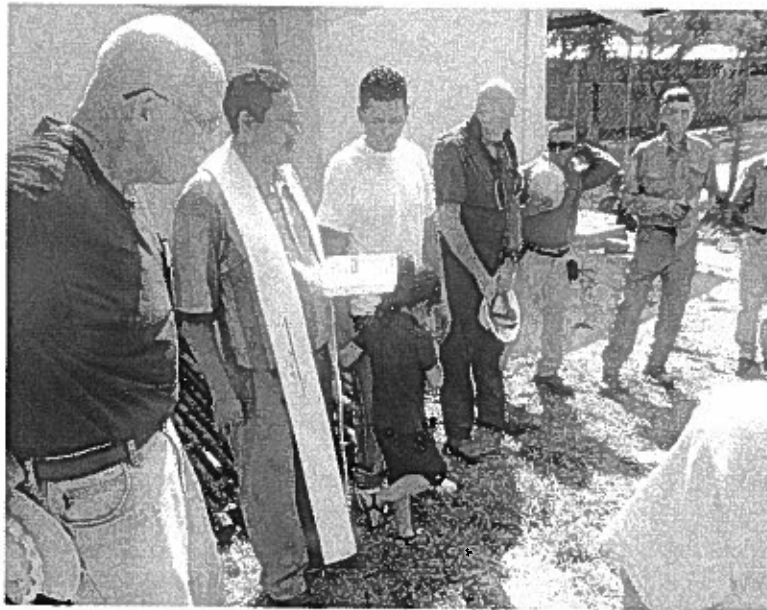
Major Challenges: After a day of preparing mud pits, mixing the bentonite drilling mud and retooling with a 6-in tri-cone roller bit, the team began May 30 by attempting to measure the total depth of the well using a 5-lb steel sounding weight tied to a strong nylon cord. Unfortunately, the weight became wedged in the hole at a depth of about 170 ft. and could not be pulled loose. If the weight could not be freed and retrieved, the hole would have to be abandoned and a new hole started nearby, because the steel weight is too hard to drill through. Honduran Head Driller Francisco and TWM Hydrologist Jack Robertson conferred and developed a fishing strategy that might successfully dislodge the stuck weight. It took the remainder of the day to implement the plan, but in the end, it worked and we were able to retrieve the weight, thanks be to God.

Lesson Learned: Never put anything down an open hole on a cord or rope that cannot be drilled through. The team fabricated a new sounding weight from a 12-oz plastic Fresca soda bottle filled with sand and water which worked terrifically well for measuring the water level and the total depth of the well!

The final configuration of this well is as follows:

| | |
|-------------|-------------------------|
| 0-200ft: | 4-in PVC casing |
| 200-210 ft: | 4-in PVC slotted screen |
| 210-310 ft: | 4-in PVC casing |
| 310-320 ft | 4-in PVC slotted screen |
| 320-340 ft: | 4-in PVC casing |
| 340-350ft | 4-in PVC slotted screen |
| 350-355 ft | 4-in PVC casing. |

Project Accomplishments: A new water well at a depth of 367' feet was drilled at the Esperanza Elementary School in Ojo de Agua, Honduras. Emplacements of two stepped concrete circular pads around the well were installed as well as a new India Mark II hand pump. The well is producing a sustained yield of 3.3 to 3.5 gpm (gallons per minute). This should be more than sufficient to meet the demands of the school at this time, and will also work if a suitable-sized storage tank is installed (about 1500 gallons) and an electric pump for providing sanitation/bathroom facilities at the school.



**Prayers at the new well at Esperanza Elementary School
Ojo de Agua, Yuscaran, Honduras**

On behalf of the people of Ojo de Agua, Honduras, the Texas Water Mission thanks the Ann Campana Judge Foundation for their generous support in funding this new water well and providing pure water for the children of the Esperanza School.

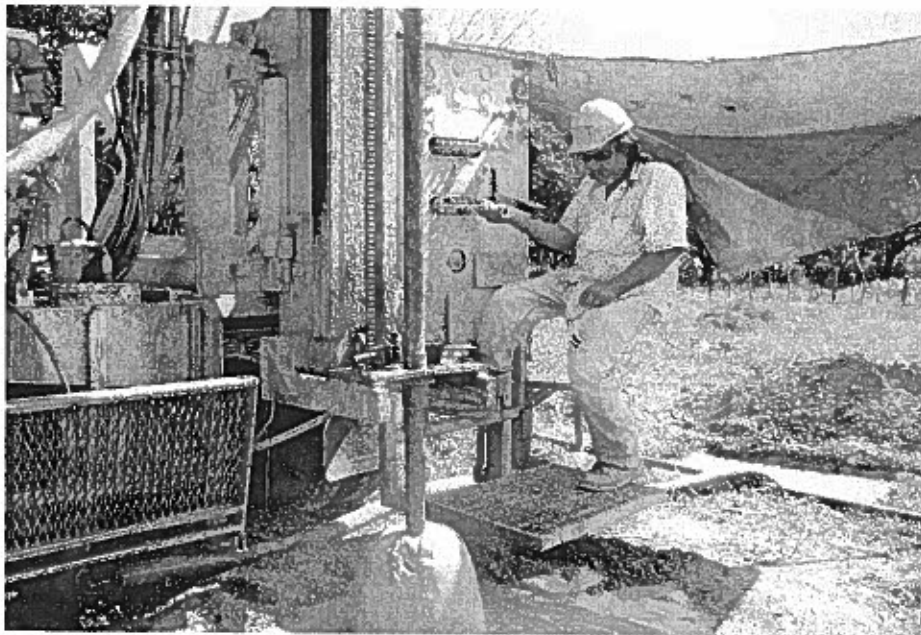
Community Well at Santa Maria, El Paraiso, Honduras



Project Description

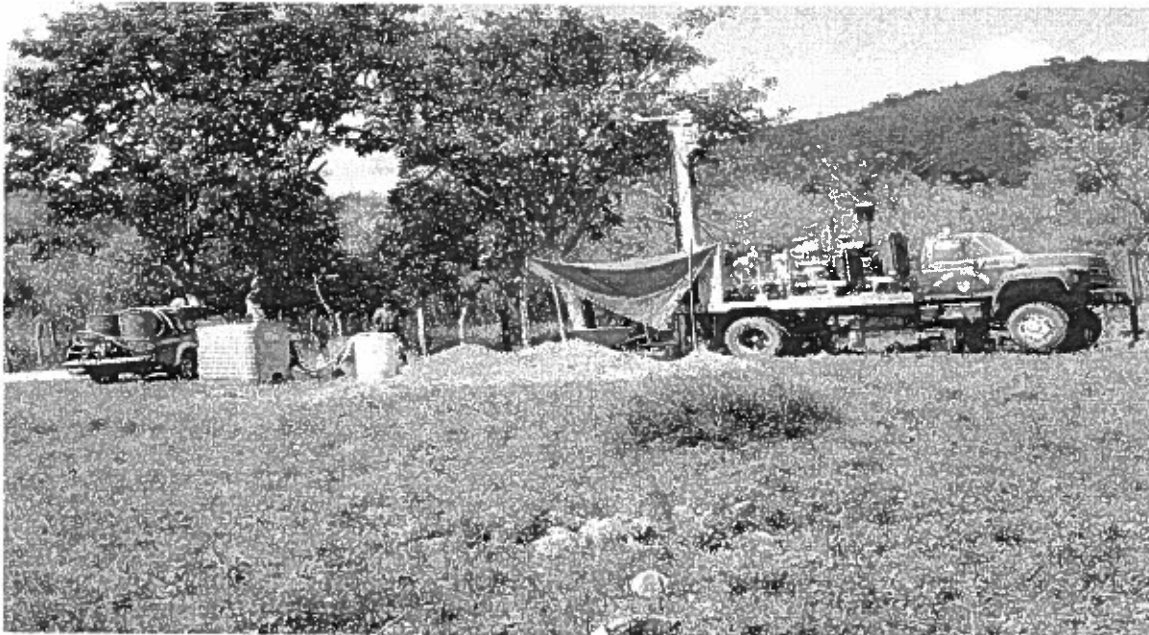
The community of Santa Maria is about 1 hour east of Danli, Honduras. It is a community of approximately 100 families and 600 individuals. The site of the new well is near the northwest corner of the front yard of a future planned Episcopal church. The church donated the land on which the well was constructed to the community; this well is a community well, not a private well. The site is convenient to the community as it is adjacent to a highway. The GPS readings for the site are: N14-08.562', W86-14.957', elevation 1,530 ft.

During the first days of December, 2011, the TWM Honduran drilling crew, led by Head Driller, Francisco Torres Beltran, began construction of a new water well at Santa Maria. This would end up being a very challenging project for our team.



Our Head Driller Francisco Torres Beltran

Major Challenges: In the days before drilling began, Head Driller Francisco (Paco) and our Honduran team ran into a problem as they set up at the designated site because the local official deemed our location as “right-of-way.” Paco worked with our hydrologist Jack Robertson of Arizona to confirm that we could move the site 7 meters south and still expect to hit enough water for the well, while meeting the requirements of the local authorities regarding the right-of-way issue. By the following week, our Honduran drilling crew had drilled to a depth of almost 170ft but the drilling had gone very slowly because of the rocky terrain. One drill got stuck in the hole and the team had to add cement to retrieve it. The next day they used a hammer drill but a “nipple” from a bentonite hose broke and Paco had to take it into Danli to fix it. During Christmas week, the Honduran crew worked most of the week, demonstrating true commitment to this community while encountering minor problems with mud hoses. On December 29, 2011, however, a very major problem arose as our “Workhorse” drilling rig, our DR130, developed a major problem later diagnosed to be 2 broken hydraulic pumps and a broken motor. These parts are not available in Honduras increasing the total cost for repairing our DR130 to approximately \$10,000; a very significant amount for our small Mission (not a great way to start the New Year!).



Our beloved “Workhorse” rig, the DR130, drilling at Santa Maria

Lessons Learned: Our Honduran drillers are very good at solving problems, whether it be dealing with local authorities over right-of-way issues, or figuring out how to retrieve parts that brake off in the hole. More importantly, they are committed to their work and their Honduran brothers and sisters, working through tremendous challenges, even during the Christmas holidays. They work with donated equipment that was already “well used” when it was received over 8 years ago and they know that every dollar counts for the small ministry that is the Texas Water Mission. We are blessed to have them with us.

Project Accomplishments: A new water well at a depth of 169.5 ft was drilled in the community of Santa Maria, producing a yield of 5gpm (gallons per minute) of clean water, which is sufficient for the needs of this community. Recent reports from a medical mission group which visited the area indicated that this well has significantly improved the quality of life of this community, as there is now a community vegetable garden near the new well. As part of this project, Texas Water Mission's Health & Hygiene "promotoras" (community teachers) visited Santa Maria and provided a week of training on topics such as keeping the water clean, hand-washing and other hygiene skills, and nutrition training, using food and vegetables from the Santa Maria community.

On behalf of the communities of Ojo de Agua and Santa Maria, Honduras, we thank the Ann Campana Judge Foundation for their generous donation of new water wells for each of these communities. Almost 2,000 Hondurans now have access to clean water as a result of this wonderful gift—Gracias!

Project Financial Report follows on the next page.

Texas Water Mission, Inc.
Financial Report to The Ann Campana Judge Foundation

February 2012

2011 Water Well Drilling Project for El Paraiso, Honduras
January - December, 2011

| Well | Item | Project Budget (200' well, 14 days) | ACJF Budget | Actuals (367' well, 17 days) | Cost Share from TWM |
|------|--|--|---------------------|---------------------------------|------------------------|
| #53 | Escuela Ojo de Agua, El Paraiso, Honduras May - June 2011 | | | | |
| | Diesel Fuel | \$ 980.00 | | \$ 2,062.19 | |
| | Equipment Maintenance Reserve (@\$35 per day) | \$ 490.00 | | \$ 595.00 | |
| | Grease, Lubricants, Repairs | \$ 210.00 | | | |
| | Drill Rig Transport and Set Up costs | \$ 250.00 | | | |
| | Construction Materials | | | | |
| | Bentonite, Cement, Rebar, PVC, Connectors, Screen | \$ 1,486.86 | | \$ 2,164.01 | |
| | Pump—India Mark II Hand Pump | \$ 500.00 | | \$ 600.00 | |
| | Labor | | | | |
| | Direct Expense: Wages (paid to Honduran workers) | \$ 792.96 | | \$ 645.00 | |
| | Mission Team Volunteers' donated labor | | | in kind donation | |
| | Indirect Expense: Food, Water, Ice (for Honduran workers) | \$ 896.00 | | \$ 318.33 | |
| | Project Management Fee | \$ 500.00 | | \$ 500.00 | |
| | | \$ 6,105.82 | | | |
| | 10% Cost Over Run Contingency | \$ 610.59 | | | |
| | Total Well Cost | \$ 6,716.41 | | \$ 6,884.53 | |
| | Health & Hygiene Teaching Supplies, Promatora Wages | \$ 583.00 | | \$ 842.84 | |
| | Topography Surveys, Mapping, Exploration | \$ 1,200.00 | | \$ 500.00 | |
| | Total Project Cost, Esperanza School | \$ 8,499.41 | \$ 7,500.00 | \$ 8,227.37 | \$ 727.37 |
| #55 | Santa Maria, El Paraiso, Honduras December 2011 | | | | |
| | Diesel Fuel | \$ 980.00 | | \$ 2,395.40 | |
| | Equipment Maintenance Reserve (@\$35 per day) | \$ 490.00 | | \$ 1,015.00 | |
| | Grease, Lubricants, Repairs | \$ 210.00 | | | |
| | Drill Rig Transport and Set Up costs | \$ 250.00 | | | |
| | Construction Materials | | | | |
| | Bentonite, Cement, Rebar, PVC, Connectors, Screen | \$ 1,486.86 | | \$ 1,092.12 | |
| | Pump—India Mark II Hand Pump | \$ 500.00 | | \$ 600.00 | |
| | Labor | | | | |
| | Direct Expense: Wages (paid to Honduran workers) | \$ 792.96 | | \$ 1,120.00 | |
| | Mission Team Volunteers' donated labor | | | NA | |
| | Indirect Expense: Food, Water, Ice (for Honduran workers) | \$ 896.00 | | \$ 750.89 | |
| | Project Management Fee | \$ 500.00 | | \$ 500.00 | |
| | | \$ 6,105.82 | | | |
| | 10% Cost Over Run Contingency | \$ 610.59 | | | |
| | Total Well Cost | \$ 6,716.41 | | \$ 7,473.41 | |
| | Health & Hygiene Teaching Supplies, Promatora Wages | \$ 583.00 | | 0* | |
| | Topography Surveys, Mapping, Exploration | \$ 1,200.00 | | \$ 500.00 | |
| | Total Project Cost, Santa Maria | \$ 8,499.41 | \$ 7,500.00 | \$ 7,973.41 | \$ 473.41 |
| | * Santa Maria Health & Hygiene instruction to be completed in 2012 | | | | |
| | Total Project Cost—combined costs for both ACJF wells | \$ 16,998.82 | \$ 15,000.00 | \$ 16,200.78 | \$ 1,200.78 |