

Ravine Sable Water Project – 2010 – 2011

Ravine Sable, Haiti, W.I.

A joint venture of Haiti Mission, Inc. (HMI) and Ryan's Well Foundation www.ryanswell.ca/

The community of Ravine Sable has always lacked a sufficient and consistent source of potable water. The city of Jeremie uses the Debarasse and Martineau water sources as a major supplier of the water to the city. In the early 1990's, Doctors without Borders and/or the American Red Cross had run 2" water lines and built a series of five fountains in the valley from the main 6" trunk line snaking its way through the mountains to Jeremie. (continued below)



These fountains were at strategic locations beginning from the easternmost point of Ravine Sable and being placed at one or two mile points supplying water to Carrefour Carton, part of the Aviation community, and Numero Deux. The families living to the west of that beginning point and extending up to and past the actual sandy ravine from which the community derives its name had to walk up a very steep mountain pass approximately two miles at the

furthest point to fetch water. When the ravine had water flowing, people would use the water to bathe, wash clothes, water animals as well as for drinking and cooking. The contamination probability and actuality was extremely high. HMI had attempted to run an extension line in 2001 but there was not sufficient volume to accomplish the goal of getting water to the Ravine. There were some political and practical matters involved that further complicated the issue surrounding getting water to this community.

In order to take into consideration all of the above factors, the current project has been developed, structured and implemented in cooperation with the Jeremie Water Department and local community input. In order to get sufficient and sustainable water from the Debarasse source and to deal with the extremely high pressure that occurs at certain times of the year, a new line was designed by the engineers at the Water Department. This line used a combination of PVC and Galvanized 2" pipe as well as the proper fittings and connections necessary to maintain the integrity of the system.

One of the additional fountains was built at the intersecting point of the Debarasse road and where the new line began its descent to the Ravine. Approximately 1000 feet of 2" galvanized pipe was used to cross the rocky terrain until the line reached the Ravine Sable road. The galvanized pipe was followed with 2" PVC pipe which was buried on the side the road to the original fountain that was refurbished and re-worked to accept the new water line. A trench was dug across the road and then trenching continued the approximately one mile trek downhill to the ravine. Trenches had to be dug across the road in two more spots – one right prior to the steep descent and then another once the descent was completed in order to reach the Ravine without having too much hydraulic pressure on the water system. Another fountain was constructed at the Ravine.

This project was very challenging, running into more environmental and logistics problems than originally anticipated because of the additional costs of materials and transportation following the earthquake as well as monsoon-like rains accompanying Hurricane Tomas. Following the hurricane, the torrential rains continued into the month of November, hampering our efforts.

The system is now fully operative with the completion date being January, 2011. The fountain has a shut-off valve type spicket that reduces waste and overflow problems. The three fountains are now supplying potable water to the 3000 or so residents of the Ravine Sable village area.

Because of the difficulties encountered throughout the process, which were above the anticipated norm, especially the fact that a special valve had to be fabricated for the connection at the 6" trunk line, there were costs overruns in all phases of this project. The final cost for laborers and plumbers was \$4000, the transportation and supervision was \$4500, and materials ended up at \$15,000. The total cost for completion of this project was \$23,500 US.

In spite of the challenges, HMI is extremely pleased that together we have been able to finally accomplish this extraordinary project - one that will be extremely valuable to the families and children of the Ravine Sable community.

Photos are on the website of HMI. www.haitimissioninc.com. Additional photos will be supplied when HMI will return from the Spring assessment trip at the end of April.

Statistics:

Length from the 6" line connection to the Ravine Sable bridge-fountain is approximately 5650 feet. Elevation descends from 451 feet to 148 feet, a drop of 303 feet with about half of the drop occurring in a steep incline approximately 500 feet long about one-quarter mile before reaching the ravine.

There are about three thousand permanent residents that will benefit from this system and untold numbers of travelers moving through the area will be able to readily access water.