

YARIBAY, BOLIVIA

Community Hand Pumps Project

THE COMMUNITY

The community of Yaribay is made up of three sub-communities: San Francisco de Yaribay, Centro Yaribay and Rosapata Yaribay. The community is situated at an altitude of approximately 13,000 feet above sea level, and about 105 kilometers from the city of El Alto/La Paz, a trip of about 3-1/2 hours by bus.

There is a school in the sub-community of Centro Yaribay with approximately 125 students from first grade through fourth year of secondary school. There is a small elementary school in each of the other two sub-communities that attend to about 80 students.

The economy of Yaribay is based primarily on agriculture and ranching. Homes within the community are dispersed, and typically constructed with adobe bricks, straw and corrugated metal roofing. The community members speak Aymará and Spanish. They've practiced the custom of working together for the common good for generations. The practice is referred to as "ayni" in the native Aymará.



Panoramic view of the community.
Typical home within the community of Yaribay.

PROJECT DESCRIPTION

This project includes the excavation and construction of individual wells and hand pump assemblies at each of the 40 homes of the community. This community is especially remote and is located in an area that has received little attention and minimal assistance from governmental agencies and NGO's.

Currently the community has no potable water service. The sources they do have are open wells and the water is of poor quality and quite turbid, especially after rains. The wells are located at great distances from many of the homes. During the dry season these wells dry up and the community members, primarily the women and children, have to walk even greater distances to bring water of even poorer quality to their homes.



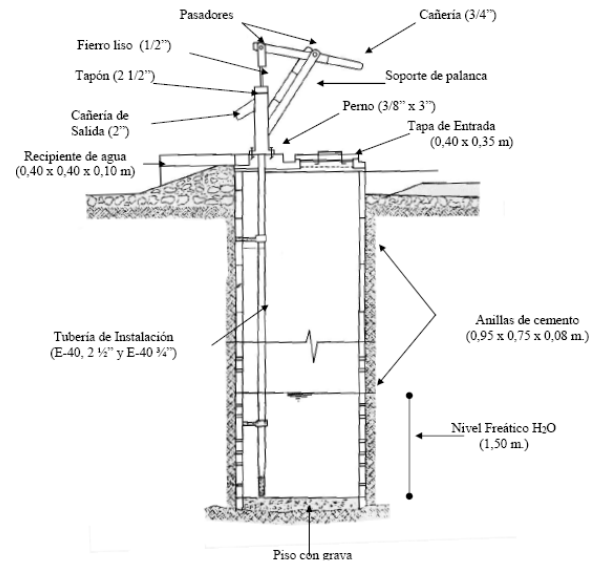
Typical community well, protected only with stones.
The turbidity of the water can be observed.



The locals also lack access to any sanitation facilities, even latrines. They simply go out into the countryside to relieve themselves. The nearest medical post is approximately 4-1/2 hours by foot in the municipality of Santiago de Callapa. Typical illnesses include diarrhea, cough, pneumonia, and acute respiratory infections, tuberculosis and rheumatoid arthritis. Generally the community members treat these illnesses with natural and traditional medicine, many times with herbs. Sometimes a local witch doctor will be called, but seldom do the locals go to the medical post out of fear and discomfort with strange customs.

The technicians from Suma Jayma had the opportunity to visit many of the homes of the community, and after digging some pilot holes are confident that water can be found at approximately 5-1/2 meters at each proposed well site. The design of the proposed manual pumps is a modification of the Ingavi project which was constructed about 50 years ago. These pumps continue to work well. Suma Jayma proposes to use a similar pump design, but with upgrades to the valves and pistons to ease maintenance.

The design can be appreciated in the sketch to the right.



ESTIMATED COST OF THE PROJECT

Suma Jayma has estimated a total cost for this project at \$13,305. The municipal government, together with the local community authorities, have committed to providing material with an estimated value (as calculated by Suma Jayma) of \$1,837, thus leaving a shortfall of \$11,468 that is being requesting of WEFTA.

