
WATER ENGINEERS FOR THE AMERICAS

1201 Parkway Drive
Santa Fe, New Mexico 87507

Telephone: 800.460.5366
Fax: 505.471.6675

Bolivia 2007

May 18, 2007

Joe Fant arrives in La Paz at 6:30 am.

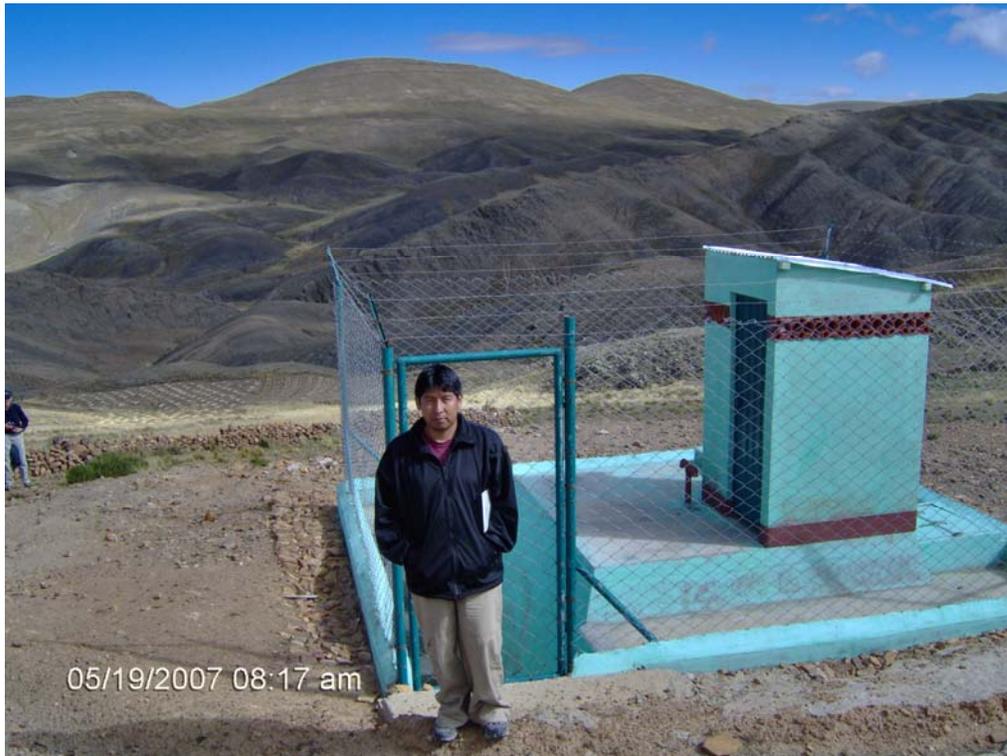
Ramón Lucero Jr. arrives in La paz at 7:30 pm.

Braulio Rojas and Jason Gehrig pick up Joe and drive to Braulio's house to meet wife Basilia and kids.

Braulio, Basilia and kids pick up Ramón and drive to Braulio's house to meet up with Joe and to discuss the weeks agenda.

May 19, 2007

We drove with Braulio and other Suma Jayma employees to Hichuraya to tour the existing spring box (toma), pumphouse and manual hand pumps. The new water system funded by WEFTA consists of a spring box, a 9,000 liter storage tank and 10 hand dug wells furnished with hand pumps. They have plenty of water for 10 months out of the year and the other two they just have to be careful how much they use.



Hichuraya

PROJECT: Gravity fed water system completed March 2006, funded by WEFTA (\$10,705) and smaller donations from municipality and locals (3,200).

WATER ENGINEERS FOR THE AMERICAS

FOLLOW-UP: Community is requesting assistance with flush latrines and showers. Request that Suma Jayma evaluate and propose options along with estimated costs.

FUNDING: None at this time.

We drove to Laca Laca for the inauguration of this recently completed water system improvement project. Sumy Jayma and community members have us a tour of the spring box, chlorination house, and house spigots. Upon completing tour of water system, members of the community and the mayor for the municipality of Calamarca started the festivities, which included paper confetti, music, dancing, beer, soda pop and lots of food.

Laca Laca

PROJECT: Gravity fed water system. Construction has begun with funds from the municipality but enough only for the storage tank and possible spring catchment. Funding from WEFTA in the amount of \$5,300 and \$3,000 from a friend of Jason's completed the distribution and tap stands. Work included one spring box, a 5,000 liter water storage tank, chlorine house, and tap stands at the individual homes, approximately 25 families.



May 20, 2007

Braulio, Jaime, Joe and I drove to Tiwanaku which is an important pre-columbian archaeological site in Bolivia. Tiwanaku is recognized by Andean scholars as one of the most important precursors to the Inca Empire, flourishing as the ritual and administrative capital of a major state power for approximately five hundred years. Some have

WATER ENGINEERS FOR THE AMERICAS

hypothesized that Tiwanaku's modern name is related to the Aymara term "taypikala", meaning "stone in the center". However, the name by which Tiwanaku was known to its inhabitants has been lost, as the people of Tiwanaku had no written language.



May 21, 2007

We left Braulio's house in El Alto at approximately 5:30 am to catch a mini van into the center of El Alto. From the center of town, we got on a bus to get to the community of Huacallaya, approximately 1.5 hours from El Alto. Once near the community of Huacallaya, we walked approximately four miles to the community, meet with community members, loaded the burro's with construction materials and continued the remaining approximate two miles to the project site. Upon arriving at the project site, the whole community was hard at work digging trenches for the water line and digging up the spring area to construct a spring box for phase 3 of this project. At the time of this writing, we understand that phase 3 is complete one spring box, which also serves as a water storage tank (approximately 3,000 liters) and approximately two miles of waterline installation. The municipality of Villa Carmen and another local NGO called 'Unitas' funded phases I and II. WEFTA funded \$7,000 and a friend of Jason's funded \$2,700 for the project.

Huacallaya

PROJECT: Gravity fed water system

FOLLOW-UP: Need approximately \$3,069 to complete project

Funding: Find donor for \$3,069

WATER ENGINEERS FOR THE AMERICAS



May 22, 2007

Our plan on this day was to visit the community of Villa Carmen, but due to road blocks we only made it as far as Viacha. We visited the Suma Jayma shop where they fabricate pumps out of PVC pipe, leather, metal tubing and chain link fence.

On our way to Viacha we picked up the mayor of the municipality of Villa Carmen and members of the Villa Carmen community. Since we could not make it to Villa Carmen, the mayor treated us to lunch and gave us an explanation of their project.

The project serves approximately 45 families with a 3,000 liter water storage tank, 29 tap stands and 8 manual hand pumps.

Villa El Carmen

PROJECT: Gravity fed water system

FOLLOW-UP: Need approximately \$1,900 to complete this project.

FUNDING: Find donor for \$1,900

After lunch Braulio took us to visit the snow capped mountain of Chacaltaya.

Chacaltaya superlatives: The highest ski area in the world. The only ski area in South America outside of Chile and Argentina. The most equatorial ski area in the world. The oldest ski lift in South America. The fastest surface lift in the world. The northernmost ski area in South America. The only ski area in South America with a season that corresponds to that of North America. The most difficult lift to load in the world. Chacaltaya's lift ascends the middle of a year-round snowfield high above the elevated altiplano of Bolivia. The top of the mountain is near 5,570m (18,275ft), and the lift ascends to a point perhaps 150m (500ft) below the summit.

WATER ENGINEERS FOR THE AMERICAS



May 23, 2007

Due to the road blocks we did not visit any communities this day, but sat down with Suma Jayma staff and went over the following projects:

Chacoma Irpa Grande

PROJECT: Water system for 80 – 150 families. There is an existing spring that produces enough water for approximately 200 families. Suma Jayma estimates that they need a 25,000 liter water storage tank, approximately two pressure reducing valves and approximately 11 kilometers of waterline.

FOLLOW-UP: No special follow up was requested.

FUNDING: Please see attached list for details

Chachacumani

PROJECT: Gravity feed water system for 40 families. There are three communities in general area. The community is asking the Mayor for \$5,000 and the families are willing to pay 100 bolivianos each towards the project.

FOLLOW-UP: No special follow up was requested.

FUNDING: Between \$14,000 and \$16,000

Zona Muyuma

PROJECT: Gravity fed water system for 30 families. There is an existing spring that needs to be developed. The families are willing to contribute 100 bolivianos each towards the project.

FOLLOW-UP: No special follow up was requested.

FUNDING: Please see attached list for details

WATER ENGINEERS FOR THE AMERICAS

Zona Achumani

PROJECT: Gravity fed water system for 30 families. There is an existing spring that needs to be developed. The families are willing to contribute 100 bolivianos each towards the project.

FOLLOW-UP: No special follow up was requested.

FUNDING: Please see attached list for details

May 24, 2007

Today we drove to the Batallas Municipality to meet with the Mayor and community members from the community of Igachi. This community has approximately 250 families, which are willing to contribute 12 bolivianos a month for the operation and maintenance of the project. The municipality has recently drilled two water supply wells to a depth of 300 feet. The municipality has completed a study to complete the rest of the water system. The study was given to Suma Jayma for review and comments. Suma Jayma will notify us if there are any funding needs for this project.

Upon completing our meeting with the Mayor and community members, we visited several communities in an area know as Chuniapata. Suma Jayma will be conducting further studies in this area to determine funding needs.

Later in the day we stopped in Chouñapata, the first project funded in Bolivia by Waterlines a few years ago. The locals we met with during our brief stay indicated that they were very happy with the system.

Chouñapata

PROJECT: First Waterlines project in the area, completed in early 2003. Gravity fed water system, functioning well.

FOLLOW-UP: No special follow up was requested.

FUNDING: None at this time.

