



## Assessment – Post-Trip Report

<b>Community:</b>	La Cuchilla
<b>Country:</b>	Dominican Republic
<b>Chapter:</b>	Kansas City Professional
<b>Submittal Date:</b>	
<b>Dates Traveled:</b>	3/26/17 - 4/2/17
<b>Authors:</b>	Adam Byrnes, James Maher, Audrey Freiberger
<b>Scope of Assessment (100 words)</b>	Investigate existing potable and non-potable water infrastructure in Batey Cuchilla and determine engineering solutions to secure clean, reliable drinking water within the community’s operation, maintenance and financial capabilities.

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## 1.0 Assessment Description

Upon arriving in Santo Domingo, we met with a Peace Corps volunteer and our NGO partner from World Water Relief (WWR) and drove to the city of Santa Cruz de Barahona. Upon arriving in Barahona, we met with our NGO and three Peace Corp Volunteers (PCV) to discuss the itinerary for the next several days.

The following day, we went with the NGO and PCV's to La Cuchilla and held a kick-off meeting. Yessenia of WWR lead the meeting. There were approximately 20 community members in attendance, including leaders of community-organized groups. We introduced ourselves, the organizations with which we are affiliated (EWB, Peace Corps, WWR), discussed short and long-term goals and the EWB project process, including the 5% funding requirement to assure vested interest of the community. We explained this trip would be an assessment and what we would be likely asking for over the next few days and looking into. We learned several key pieces of information at this meeting:

- The community was without running water and had been for several weeks since someone stole three of six solar panels that powered the water pump. The pump was not able to operate with the reduced energy output.
- Before the panels were stolen, running water was available once a day. With the water line to the community closed, the well pump was turned on and the tank was allowed to fill. The tank was determined to be full when water flowed out the overflow. The pump was turned off and the line to the community was opened. The water in the tank was depleted within one hour of the water line being opened.
- Electricity is not constantly available. The community receives power for a 5-6 hour interval once a day, per a schedule.
- The population of La Cuchilla is ~500, with 200 of these being children.
- Over half the houses have an outdoor faucet that receives low pressure water when water is running.
- Without running water, community members were walking to the pump house and filling jugs from the overflow of the existing well.

After this meeting, we ate a lunch supplied by the community with meeting attendees. We then performed a general site assessment. Some of our group walked around the community and took notes on possible alignment of underground water pipes. Others went to visit the well house. During the next several days we gathered data and performed some small improvements. These are discussed in Section 3 of this report.

That evening at the hotel, we met with the PCV's and NGO. We determined that there would be little cost to attempt to reestablish running non-potable water to the community, and they were in dire need of this service. We agreed to make it a goal of the assessment trip to reestablish

running non-potable water.

We developed an itinerary and set other goals for the week. During the remainder of the week, the team often broke into several groups with, as an example, one group working on collecting engineering data, one group attempting to reconnect the water supply, and another group acting as community liaisons with the intent to build community trust and gain further insight into the educational and social aspects of what future implementation projects would need.

At the end of the week, we gathered again with the community for a meeting and lunch. We discussed what we had accomplished that week, set ongoing goals and communication expectations and discussed and signed the Community Project Partnership Agreement. The community representatives reiterated their desire to work with us towards securing clean, reliable drinking water for La Cuchilla.

In summary, our final actions:

- With the extended depth of the pump and the low wattage bulbs we were able to leave the community with a functioning nonpotable water system.
- We installed a few valves on the open ended water supply line at the individual houses.
- We left \$100 with the NGO requesting he enlist his plumber ( a WWR employee) to purchase and install shut-off valves on all the open-ended supply lines and repair any known leaks in the pipeline. We estimated about 15 valves would be needed at a cost of about \$1.50 each. The installation time is about 5 min. each. The leak repairs will be more time consuming depending on how much digging is required.
- We emphasized the need for conservation of electricity to have ample supply for the pump and also for conservation of water. We had noticed water running continuously even with a shut valve available.

## **2.0 Go/No-Go Decision**

A preliminary list was developed during the Pre-Trip report to identify potential difficulties that could cause EWB-KC to discontinue the project. These included:

1. Partnership Conflicts
  - a. Conflicts with sugar cane company
  - b. Fallout between community and NGO
2. Political Conflicts
  - a. Political unrest resulting in safety concerns
  - b. Health, security, and safety concerns
  - c. Prohibitive government regulations

3. Project Conflicts
  - a. Lack of investment by the community
  - b. Project feasibility and cost

## **2.1 Partnership Conflicts**

The assessment trip paid particular focus to setting up partnerships between multiple organizations and the community.

The sugar cane companies in the region have a long and varied history with these bateys (a batey is a community in or around sugar cane company land). The bateys started out as temporary migrant work camps in the 40's and 50's. Over the years, oppression from the sugar cane companies on these bateys has decreased. It is important to note that the sugar cane companies do not own this land, but rather lease large territories from the government in 30 year contracts. What used to be temporary migrant communities, these bateys have now become permanent communities. In Batey Cuchilla, the community members indicated that the sugar cane company does not own the land that they live on. Homes and businesses/shops in the community are owned by the people that live or work in them.

We also inquired about the relationship the community currently has with the sugar cane companies and asked multiple NGO's who work in the area about their experiences with this sugar cane company in particular. We gathered that the sugar cane company plays a very hands off approach, choosing to ignore the bateys and largely leaves them alone. The companies rather focus on business, harvesting, and profit making issues. A few members of the NGO World Water Relief have contacts within these companies from personal relationships, and they have mentioned that these companies are not actively trying to interfere with the bateys and that we should not expect any problems with them. We will continue to monitor and be careful with any contact with the sugar cane companies, however there is not conflict with these companies and is not a no-go decision currently.

The relationship between our NGO, World Water Relief, and Batey Cuchilla was also assessed. From our observations they have a very strong presence and a history of empowering the community rather than just providing charity or assistance. We have a lot of confidence and appreciation for this NGO as our partner.

## **2.2 Political Conflicts**

Safety, political, health, and security concerns were also assessed. This community is largely made up of families who are all very connected to each other, a very tight-knit community. Security concerns are very minor inside of Batey Cuchilla. Community members would watch out for our team regularly. Peace Corp volunteers are stationed in many bateys in the immediate area and there was a PCV stationed in Batey Cuchilla recently. This indicates that the security, health, and safety concerns were deemed acceptable for Peace Corp requirements. The only political situation right now is a very minor one in the community and it revolves around the new school construction project. The school, school buildings, and land are all owned by the Ministry of Education. About 5 years ago a new school started construction in Batey Cuchilla. However, construction was halted about 2.5 years ago. The contractor and engineers pulled all resources and drawings, essentially liening the project, until they received payment for design and construction services from the government. It is an unfortunate situation for the students, however this political situation is not expected to impact our project.

## **2.3 Project Conflicts**

During the trip we made very clear the 5% contribution requirements that have to come directly from community members either through cash or skilled labor. After answering their thorough questions this requirement was made clear and accepted. This paraphrased quote from one of the community leaders makes their commitment clear, that it didn't matter if they had to stand in front of the presidential palace to get the money, they would make sure the money is ready for the project.

During the trip there were some project related expenses for materials and labor that were incurred to get their existing well pump operating on the electric grid. We decided that in order to be consistent in this 5% requirement that we should ask Batey Cuchilla to pay 5% cash for the materials, amounting to 452 dominican pesos, or about \$10 USD. The community is currently raising these funds and will give them to EWB-KC through our NGO. We are very encouraged by the community's commitment and cooperation.

The overall project cost is expected to be between \$50,000 - \$90,000 USD. EWB-KC is actively putting together a detailed fundraising plan and we plan to be able to fully fundraise the amount needed. We will try to get project costs down during detailed design. The 5% contribution from the community could be as much as \$5,000 USD. However, we have discussed with EWB-USA an option of capping the community contribution amount at about \$1,500 USD. This amount is

not the full 5%, however it does still fulfill the community investment intent without being an insurmountable amount for the community to raise. This figure will be refined as final project cost estimates are developed.

### **3.0 Data Collection and Analysis**

#### **3.1 Initial Site Assessment**

- The Myers pump was in the well house leaning against the wall and plumbing parts were lying on the floor.
- The well house had a connection box powered by the grid from an underground conduit.
- The electric grid was on a limited schedule
- The water level in the well was at surface grade.
- The pump house and well was approximately 10' from an irrigation canal used by the sugar cane company. It was about 8' wide, slowly flowing and about 2'-3' deep. Kids were playing in it and livestock drank from it.
- A 1" dia. PVC pipe exiting the back wall of the pump house was continuously running with clear water and the community members were collecting the water in jugs and buckets for domestic use.
- The well bottom was measured at 34'-0"
- The solar panel frame is on top of the well house and had one remaining panel that was damaged.
- Two panels were in the community center and appeared to be in good condition. Three panels were reported stolen.
- The water tower appeared to be structurally sound and the ladder to the top also appeared to be safe.
- The tank was empty but in good condition. It had a hinged hatch that was badly rusted but still functional.
- The chlorinator appeared to be functional but was empty and was set below grade (in a hole dug meant to be a valve chamber but had no structure preventing it filling with dirt or water).
- About 15 houses had water outlets without spigots or valves.
- The school had several grade school children in attendance.
- A new much larger school was being built and was ~90% complete but no with construction activity.

#### **3.2 Follow-up Data and Assessment**

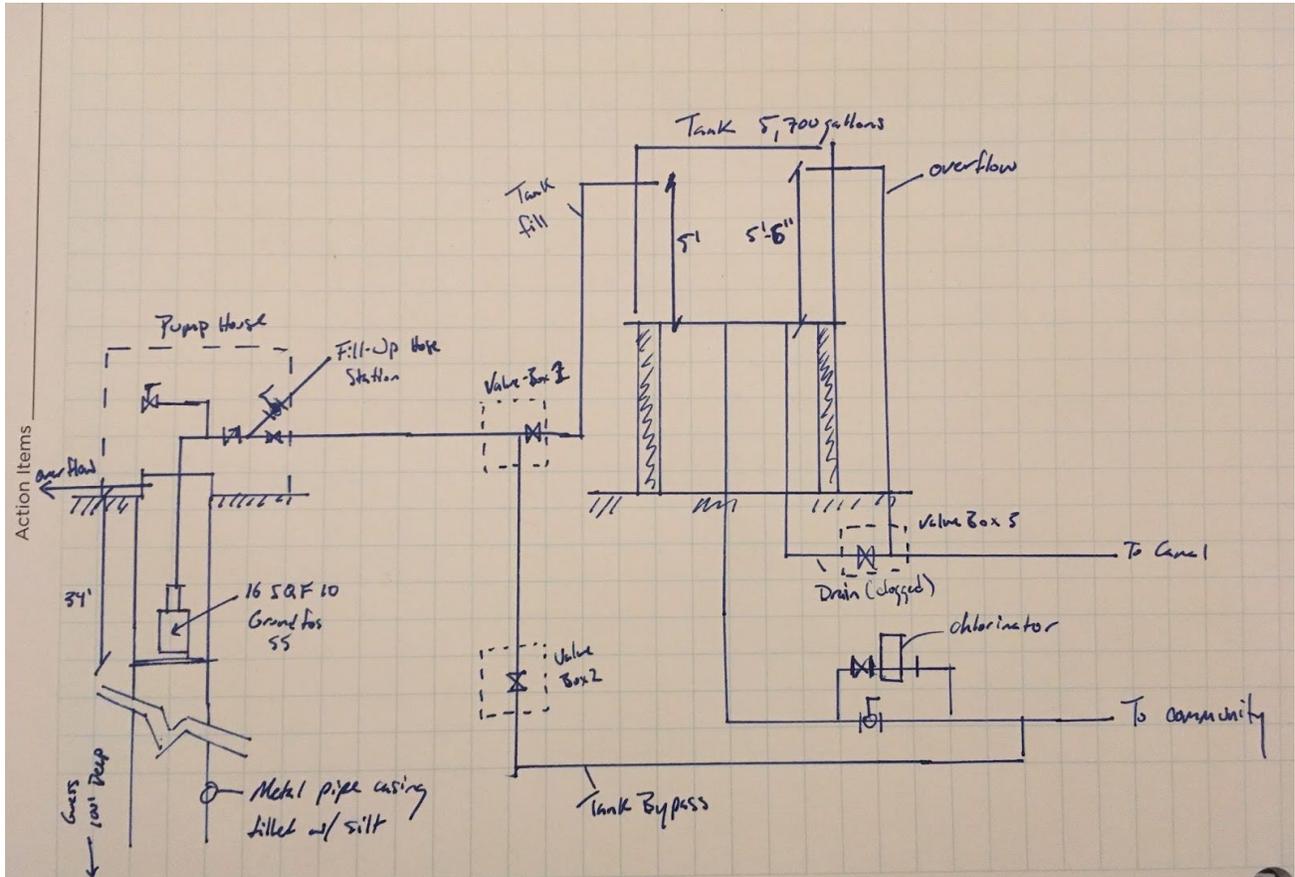
Over the next several days we continued to visit the site and walk the community and perform small beneficial no to low-cost improvements to leave the community with running water. See Sections 3.3 and 3.4 for the Existing System Flow Diagram and Water Distribution System Schematic, respectively. Relevant information collected is as follows:

- A GPS data point was taken on the water level in the canal and the water level in the well at grade. They were the same. It appears that the canal water is seeping into the well. The PVC pipe with continuous running water is probably an overflow. A valve was put on it to stop the continuous saturation of the ground and ponding but that caused the well to overflow into the well house so the valve was removed.
- The Grundfos Controller had been bypassed and the Myers pump appeared to have been directly connected to the grid. We attempted to power the Myers pump in a barrel of water. The motor hummed but did not turn. Closer examination revealed major cuts and deterioration of the insulation on the pig-tail wires from the Myers pump.
- A member of the community explained to us there was another pump. We asked about its location and he went and brought back a Grundfos pump with a 14'-0" long, 2" dia. PVC pipe attached.
- We connected the Grundfos Controller to the grid and the Grundfos pump was connected to the controller. The pump was set in the well (below the low water sensor) and activated. It began pumping water.
- We made an appointment with the school administrator to discuss the situation of the school.
- We made an appointment with the construction company superintendent on the school construction to discuss the project.
- We made an appointment with an area well driller to discuss local geology and well drilling.
- We got contact information for the engineer in charge of the construction of the school.
- We decided against retrieving samples from the well since it was obviously contaminated by canal water and groundwater.
- The elevated tank interior dimensions were 12'-6" X 12'-2" X 5'-0" (height to overflow drain) giving the tank a capacity of 5,600 gallons.
- We met with the local governmental water authority - INAPA - in Barahona to discuss the possibility of connecting the Cuchilla Community to a municipal water supply line. We looked at maps and gathered information on the local water system. We were told that a formal request would have to be submitted with approved plans. The nearest municipal water main was 3-5 miles away and we decided that it would be too costly and too constrained by governmental protocols to be a viable option.
- We met with the school administrator who gave us a history of the new school construction. He said the old school was too small and the Ministry of Education began building the new school to accommodate the population. Currently the older children are sent to a neighboring school. Two years ago the funding stopped and the project has set dormant. He also informed us of a new well drilled by the contractor. They had needed construction water and a 1" dia. hose was seen coming out of the ground about 50' from one of the new structures. A small pump house exists ~30'-0" from the well and an electrical line came from it that ran into the ground next to the hose. He gave us contact

information for the construction company and the project engineer.

- We met with the construction superintendent. We asked about the well and he said it produced water, was about 32 meters deep and had an 8" perforated steel casing pipe at the top of the well. The perforations started at about 5' down.
- We met with a local well driller that was familiar with the area and said that shallow wells were contaminated by the agricultural run-off and the only way to get clean water was to drill to a depth of 100 meters and there were no guaranties.
- He said a well like this would cost \$25,000. He recommended and gave us contact info for a hydro-geologist in Santo Domingo for further research.
- We collected GPS data points at the water assets in the community and were shown how the water lines run in the community. We gathered enough data to generate a basic water distribution map (Section 3.4).
- We installed the Grundfos pump in the well with the attached 2" discharge pipe. This put it at a depth of 14'-0". The power from the grid was routed through the Grundfos Controller. It had been bypassed when the solar panels had been stolen and the community thought the Grundfos could only work with solar power. They had reinstalled the Myers pump and wired it to the grid. This didn't work because either the pump was locked-up or the wiring was incorrect. When we ran power through the Controller the Grundfos pump worked, however there was insufficient power to overcome the head to the tank (about 50').
- In an attempt to raise the available wattage we went to several houses and requested they turn off unnecessary lights. This was successful and the wattage increase was enough to overcome the head to get water to the tank. The next day we brought 30 Compact Florescent Bulbs and exchanged them for old existing bulbs in the community.
- We measured the drawdown of the well and found that the pump could only run for about an hour before the low-water sensor shut down the pump. This is with the existing 14'-0" discharge pipe we found connected to the pump. One hour of running produce about 1,120 gallons. ( 1/5th of the tank ).
- Earlier we found a section of 2" dia. PVC that looked like it might have been part of the original discharge. We cut a 4'-0" length off of this pipe to remove a 90 degree bend, added a glued joint and installed an addition 10'-0" length of PVC,, extending the pump depth to ~24'-0".
- An additional switch was added to the connections so the pump could be run from a generator. We used this when the grid was not energized, borrowing a generator from the WWR personnel.
- When the pump was shut off by the low-water sensor, the controller uses a timing mechanism to turn the pump back on in order to protect the pump from continuously cycling off and on.

### 3.3 Existing System Flow Diagram



### 3.4 Existing Water Distribution System



**4.0 Photo Documentation**

 A photograph showing a large, rusted metal cylindrical tank resting on a white concrete frame structure. The structure is situated on a concrete pad in an open area with some vegetation in the background under a clear blue sky.	 An aerial-style photograph of the same rusted metal tank on its concrete frame. A dirt road runs alongside the structure, with a white car and a person on a motorcycle visible in the distance. The surrounding area is lush with greenery and palm trees.
<p>Formerly-used Water Tank &amp; Structure</p>	<p>Formerly-used Water Tank &amp; Structure</p>
 A photograph of a tall, white, rectangular concrete water tower structure. The structure has a central vertical pipe and is surrounded by a chain-link fence. There are banana plants and other greenery in the foreground.	 A close-up photograph of a square concrete hatch on a flat roof. The hatch is covered with a large, flat, rusted metal plate. The surrounding roof surface is dark and appears to be asphalt or concrete.
<p>In-use Water Tank &amp; Structure</p>	<p>Water Tank Hatch</p>

	
<p>Water Tank Hatch (note corrosion)</p>	<p>Inside Water Tank</p>
	
<p>Chlorinator at Base of Water Tank</p>	<p>Chlorinator at Base of Water Tank: Inside Chlorinator</p>



Chlorinator at Base of Water Tank: Label



Location of Pump House in Relation to Irrigation Canal & Water Tank



Pump House



Solar Panel & Solar Panel Support Structure on Pump House (3 Panels Stolen, 2 Taken Down and Stored in Community Center, 1 Remaining)



Myers Pump in Well Upon Arrival (Pump not Functioning, Removed)

Details of Myers Pump



Details of Grundfos Pump Currently in Well

Details of Grundfos Pump Currently in Well



In-use School (Front)



Lunch being Prepared Behind School



Inside Classroom



Water Spigot at School (Next to Guard House)



New School in Relation to In-Use Facility



In-Use School in Relation to New Facility



New Unfinished School



New School Cafeteria



Pump House & Cistern at New School



Well at New School



Water Cistern at New School



Batey 9 Water Tank



Batey 9 Pump House Interior



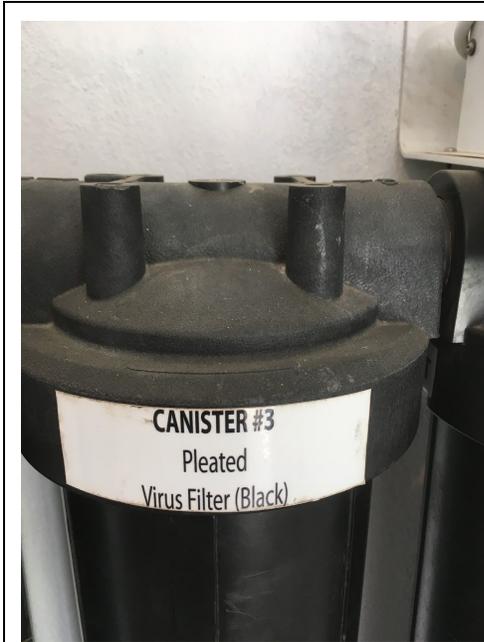
La Cuchilla Bottling Facility: Filters



La Cuchilla Bottling Facility: Filter #1



La Cuchilla Bottling Facility: Filter #2



La Cuchilla Bottling Facility: Filter #3



La Cuchilla Bottling Facility: Filter #4



La Cuchilla Bottling Facility: Pump (1 of 2)



La Cuchilla Bottling Facility: Filters & Pumps



La Cuchilla Bottling Facility: Bottling & Distribution Station



La Cuchilla Bottling Facility: Ground Tank



Ground Tank Connection to Facility Interior



Fluid-Driven Chlorine Injector



Cuchilla Bottling Facility: Chloride Intake



Fluid-Driven Chlorine Injector Details



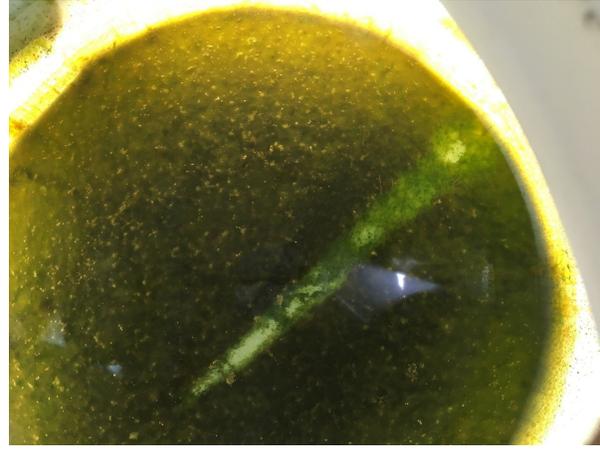
Fluid-Driven Chlorine Injector Details



La Cuchilla Bottling Facility: Tanks



La Cuchilla Bottling Facility: Elevated Tank



La Cuchilla Bottling Facility: Inside Elevated Tank

**5.0 Locally Available Materials & Services Costs**

**FERRETERIA TORAL.S.R.L.**  
 1-17-00069-2  
 C/30 DE MAYO #6, BARAHONA  
 TEL.809 524-2220 FAX 809 524-5829  
 MADERA Y MATERIALES DE CONSTRUCCION

**COTIZACION**

CODIGO: 000000  
 NOMBRE: ING. SIN FRONTERA **631148**  
 FECHA: 17-may-2017

Page 1 of 1

CODIGO	REF.	DESCRIPCION	CANTIDAD	ITBI	PRECIO	SUBTOTAL
0010104	PVC	CODO PVC 1/2X90 SCH40	100.00	S	5.93	593.00
0010194	PVC	LLAVE PASO BOLA 1/2 PVC	50.00	S	18.64	932.00
134143	950ML	CEMENTO PVC TANGIT EXPRESS 950ML	1.00	S	868.64	868.64
0010066	PVC SCH-40	TUBO SCH-40 1/2X19	7.00	S	156.77	1,097.39
		ULTIMA LINEA				
<b>SUB-TOTAL</b>						<b>3,491.03</b>
<b>DESCUENTO</b>						<b>0.00</b>
<b>SUB-DESCUENTO</b>						<b>3,491.03</b>
<b>ITBIS</b>						<b>628.39</b>
<b>TOTAL</b>						<b>4,119.42</b>

*Amiriy Santana*  
 Realizada por

*Stephen*  
**FERRETERIA TORAL S R L**  
 C/ 30 DE MAYO NO: 6  
 Tel: 809 524 1656  
 PNC: 117000692  
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 3/03/2017 14:06:56  
 NIF: 4004910000031610  
 NCF: A010010010200958073

**FACTURA PARA CONSUMIDOR FINAL**

DESCRIPCION	ITBIS	VALOR
1.00 x 40.00		
LLAVE PASO 1/2" x 1/4" IP PVC	8.10	40.00 2
1.00 x 30.00		
LLAVE PASO BOLA 3/4" PVC	.58	30.00 2
1.00 x 138.00		
CEMENTO PVC 4-QNZ LAL	21.05	138.00 2
1.00 x 112.01		
LIMPIADOR CLEANER 4 OZ L	17.09	112.01 2
<b>SUBTOTAL</b>	48.82	320.01
<b>TOTAL A PAGAR</b>	48.82	320.01
EFFECTIVO		500.00
CAMBIO		179.99
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NIF:4004910000031610		
180113100600405		
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TSP650FP V01.07.RD.R		

*James*  
**FERRETERIA TORAL S R L**  
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 NCF: A010010010200958073

**FACTURA PARA CONSUMIDOR FINAL**

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ALAMBRE STD CRID 4 0 #10	31.46	206.25 2
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<b>TOTAL A PAGAR</b>	31.46	206.25
TARJETA DE CREDITO		206.21
EFFECTIVO		0.04
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NIF:4004910000031610		
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10491		
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*James*  
**FERRETERIA TORAL S R L**  
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**FACTURA PARA CONSUMIDOR FINAL**

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CONECTOR C/RUSCA ROJO	3.66	24.00 2
50.00 x 8.25		
ALAMBRE STD CRID 4 0 #10	62.92	412.50 2
<b>SUBTOTAL</b>	66.58	436.50
<b>TOTAL A PAGAR</b>	66.58	436.50
TARJETA DE CREDITO		436.41
EFFECTIVO		0.09
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JAMES		
0183010111010109041401081957B0096E4D40RD		
NIF:4004910000031610		
180113100600414		
10492		
TSP650FP V01.07.RD.R		

*MHI Audrey 2-29*  
**REPUESTOS Y FERRETERIA**  
**"Hnos. Pérez"**  
 C/ Sánchez esq. Pedro Mesa No. 15  
 Tel: 809-527.1017, Cel: 829.927.6184  
 Tamayo, Prov. Bahoruco, R. D.  
 RNC.0760002413-2

**FACTURA No.** *Stephen* **FECHA:** *29/03/17*  
**CLIENTE:** *Stephen*  
**DIRECCION:** *paid by Audrey*  
**CONDICION:**

CANT.	ARTICULOS	PRECIO UNITARIO	VALOR
1	Extension 25 FT	235	235
10	Pie Conductor	9	90
1	Fuente 04	255	255
3	Cable 2 PL	25	75
10	Talvera	5	50
3	Abrazador	40	120
<b>TOTAL RD\$</b>			<b>830</b>

*Adon*  
 DESPACHADO POR RECIBIDO POR

*Danny*  
**FERRETERIA TORAL S R L**  
 C/ 30 DE MAYO NO: 6  
 Tel: 809 524 1656  
 PNC: 117000692  
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 3/03/2017 08:29:17  
 NIF: 4004910000031699  
 NCF: A010010010200958310

**FACTURA PARA CONSUMIDOR FINAL**

DESCRIPCION	ITBIS	VALOR
120.00		
ABRADOR HERMEX 1.0	110.00	720.00
00 x 935.00		
1 PE 3M GOMA	142.63	895.00
<b>SUBTOTAL</b>	253.22	1,660.00
<b>TOTAL A PAGAR</b>	253.22	1,660.00
TARJETA DE CREDITO		1.00
EFFECTIVO		1,659.00
N:91446 USUARIO:NERTHY CAJ:0001		
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TSP650FP V01.07.RD.R		

*MHI 5*  
**FERRETERIA MARTINEZ MEDINA EIR**  
 RNC 131112277  
 BARAHONA  
 FERRETERIA MARTINEZ MED  
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 LOTE 008 CREDITO

**VENTA**  
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**APROBACION** 023322  
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**ITBIS:** RD\$ 25.93  
**TOTAL:** RD\$ 170.00

ACEPTO PAGAR ESTE MONTO SUJETO A LOS  
 TERMINOS DEL CONTRATO CELEBRADO CON  
 EL EMISOR DE LA TARJETA  
 DANIEL NABELEK  
 Copia Cliente  
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3-30  
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**Ferretería TOTAL S.R.L.**  
 Barahona, Rep. Dom.  
 Tel. 809-524-2809/1106/5649  
 RNC 01800115964

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 HORA: 09:01

FECHA: 31-03-2017  
 NCF: A010010010200281791  
 NIF: 9252550000021344  
 RAZON SOCIAL/NOMBRE: EWB

**FACTURA PARA CONSUMIDOR FINAL**

DESCRIPCION	ITBIS	VALOR
1.00 x 195.01 LLAVE CHORRO 3/4 VERDE	29.75	195.01 2
1.00 x 60.00 TEE PVC 2" SCH40	9.15	60.00 2
1.00 x 15.00 RED BUSSING 2X3/4	2.29	15.00 2
1.00 x 9.99 CODO PVC 3/4X90 SCH40	1.52	9.99 2
1.00 x 5.99 ADAPTADOR MACHO 3/4 PVC	0.91	5.99 2
1.00 x 33.00 L.T.JA AGUA GRINCO 60	5.03	33.00 2
SUBTOTAL	48.66	318.99
<b>TOTAL A PAGAR</b>	<b>48.66</b>	<b>318.99</b>
EFFECTIVO		350.00
CAMBIO		31.01

USUARIO: NERTHY CAJ:0001  
 018301011101010904140 080C0E2006BA3740RD

NIF: 4004910000031892  
 2480113100600405  
 400491  
 TSP650FP V01.07.RD.R

3-31  
**Ferretería MEDINA**  
 C/Luis E. Del Monte #14 Esq. 30 de mayo  
 Barahona, Rep. Dom.  
 Tel. 809-524-2809/1106/5649  
 RNC 01800115964

JESUS MEDINA  
 RES DGII: 69-2013 DEL 20/06/2013  
 COMPROBANTE AUTORIZADO POR DGII  
 HORA: 09:01

FECHA: 31-03-2017  
 NCF: A010010010200281791  
 NIF: 9252550000021344  
 RAZON SOCIAL/NOMBRE: EWB

**FACTURA PARA CONSUMIDOR FINAL**

DESCRIPCION	ITBIS	VALOR
5.00 x 50.00 7467998326346		
IPASTILLA CLORO AGUA K	38.14	250.00 B
LEAN CLAUDETTE	38.14	250.00
SUBTOTAL		250.00
<b>TOTAL</b>		<b>250.00</b>
EFFECTIVO		250.00
# ITEMS: 1		

31 MAR 2017  
 31 MAR 2017  
 1\* Doc. Nro.: 86041- (1 item(s))  
 ITEM B GRAVADOS CON (18.00%) ITBIS  
 Gracias por su compra!  
 No cambios después de 72 horas  
 Partes eléctricas no se cambian

NIF: 9252550000021344  
 925255  
 V\_RDI.01

**RECEIPT** No. 167121

DATE 5/31/2017

FROM BATEY CUCHILLA PLUMBING \$ 4000.00 <sup>RD</sup>

FOUR THOUSAND ~~000~~ 00 ~~PESOS~~ DOLLARS

FOR RENT  
 FOR MIGUEL SOLA PLUMBING FOR EWB

ACCT.		<input type="radio"/> CASH
PAID		<input type="radio"/> CHECK
DUE		<input type="radio"/> MONEY ORDER
		<input type="radio"/> CREDIT CARD

FROM EWB TO MIGUEL SOLA

BY Miguel Sola Lopez A-2501 T-46820

## Appendix A: Community Project Partnership Agreement



### Community Agreement – Project Partnership

EWB-USA projects are most successful when there is a three-way partnership between each of the entities listed below. Each partner has specific skills and expertise, which together, contribute to a more sustainable project over the long-term.

- **Community** - Community-Based Organization (CBO) and Community Members
- **Local Partner Organization(s)** - Local NGO and/or municipal/city government
- **EWB-USA Chapter**

This contract is between KANSAS CITY PROFESSIONAL chapter of Engineers Without Borders, USA, LA CUCHILLA, and WORLD WATER RELIEF for the purpose of setting guidelines for LA CUCHILLA DRINKING WATER PROJECT. **The roles and responsibilities listed below must be included in the standard EWB-USA Project Partnership Agreement.** Additional roles and responsibilities identified by any party to the agreement may be added at the discretion of all parties to the agreement. This document must be signed by all parties in order to move on to the design development of LA CUCHILLA DRINKING WATER PROJECT.

EWB-USA is a volunteer-based organization without a pre-approved budget. Implementation of all projects is contingent upon all parties meeting the commitments outlined below, funds being raised and a stable security situation which allows travel to the site by our members. This agreement is not legally binding, but is intended to clarify expectations, roles and responsibilities of all parties to the subject project.

**The residents of LA CUCHILLA agree to the following:**

- To communicate directly with the KANSAS CITY PROFESSIONAL chapter of EWB-USA on a regular basis, as determined by the needs of the project.
- To inform KANSAS CITY PROFESSIONAL chapter of EWB-USA of any changes to the security/safety situation.
- To allow KANSAS CITY PROFESSIONAL chapter of EWB-USA to communicate directly with all interested community groups in order to get all pertinent input to the development of LA CUCHILLA DRINKING WATER PROJECT.
- To organize and involve community members in all aspects of the project.
- To identify community contacts to accompany the KANSAS CITY PROFESSIONAL chapter of EWB-USA team during site visits.
- To ensure that LA CUCHILLA DRINKING WATER PROJECT represents community-wide priorities and that all community members will have the opportunity to benefit from the project per the terms of use established by the community.
- To contribute a minimum of 5% of the capital construction cost in cash before construction begins.
- To provide in-kind contributions to the project at no cost to KANSAS CITY PROFESSIONAL chapter of EWB-USA.
- To identify a formal system of responsibility for the operations and maintenance of LA CUCHILLA DRINKING WATER PROJECT.

Community Agreement – Project Partnership  
KANSAS CITY PROFESSIONAL  
LA CUCHILLA, DOMINICAN REPUBLIC

Revised 03/2017

- To establish and administer the funding mechanism required to continually operate and maintain LA CUCHILLA DRINKING WATER PROJECT after construction is complete.
- To be available to assist with additional technical data collection not completed by KANSAS CITY PROFESSIONAL chapter of EWB-USA on site assessment trips.

**WORLD WATER RELIEF agrees to the following:**

- To inform KANSAS CITY PROFESSIONAL chapter of EWB-USA of any changes to the security/safety situation.
- To visit LA CUCHILLA often, and as needed, for project progress.
- To build the capacity LA CUCHILLA to establish continuing support of the system, as needed.
- To provide project-specific training for LA CUCHILLA, as needed.
- To identify contributions that the WORLD WATER RELIEF can make to the project.
- To assist in ongoing monitoring and evaluation of LA CUCHILLA DRINKING WATER PROJECT.
- To be available to assist with additional technical data collection not completed by KANSAS CITY PROFESSIONAL chapter of EWB-USA.

**KANSAS CITY PROFESSIONAL chapter of EWB-USA agrees to the following:**

- To work in partnership with LA CUCHILLA to design and develop the project, LA CUCHILLA DRINKING WATER PROJECT.
- To seek input from community members during the design phase
- To communicate with LA CUCHILLA and WORLD WATER RELIEF throughout project design phases to provide status updates on project design development.
- To identify contributions that the KANSAS CITY PROFESSIONAL chapter of EWB-USA can make to the project construction expenses.
- To inform LA CUCHILLA and WORLD WATER RELIEF of any changes to the agreed upon details of site visits.
- To collect technical data required to complete the project design.
- To provide project-specific education and training, including operations and maintenance training in SPANISH.
- To provide a manual to instruct the community on operations and maintenance of LA CUCHILLA DRINKING WATER PROJECT in SPANISH.
- To provide as-built drawings to LA CUCHILLA after project completion in SPANISH.

In addition to the responsibilities listed above, indicate the responsible party for each of the following:

- Coordination of transportation for travel team members of KANSAS CITY PROFESSIONAL chapter of EWB-USA will be provided by WORLD WATER RELIEF.
- Coordination of translation services for travel team members of KANSAS CITY PROFESSIONAL chapter of EWB-USA will be provided by WORLD WATER RELIEF.

On behalf of, and acting with the authority of the residents of LA CUCHILLA, the NGO/local municipal partner WORLD WATER RELIEF and KANSAS CITY PROFESSIONAL chapter of EWB-USA, the under-signed agree to abide by the above conditions.

Community Agreement – Project Partnership  
KANSAS CITY PROFESSIONAL  
LA CUCHILLA, DOMINICAN REPUBLIC

Revised 03/2017

Audrey Freiberger 31 March 2017  
Signature Date  
AUDREY FREIBERGER  
Printed Name  
01-314-498-2684  
Contact Telephone Number (including country code)  
MEMBER  
Position in KANSAS CITY PROFESSIONAL chapter of EWB-USA

Carina Felix Peres 31/03/2017  
Signature Date  
Carina Felix Peres  
Printed Name  
849-655-0835  
Contact Telephone Number (including country code)  
Promotora  
Position in Community-Based Organization

Bruno Estrada 3/31/2017  
Signature Date  
BRUNO ESTRADA  
Printed Name  
829-353-6861  
Contact Telephone Number (including country code)  
DIRECTOR, WORLD WATER RELIEF  
Position in Local Partner Organization