Case Study: Gerber

Project ID:

Company:	**Gerber**
Location:	**Costa Rica**
Year:	**2003**
Description:	**Process water for baby food manufacturing plant**
Goal:	**Ferric, Manganese and Hydrogen Sulfide Removal**
Capacity:	**65 m^3/hr**
Water Source:	**3 private deep wells**

The Problems:

- The plant's well water contained Ferric, Manganese and Hydrogen Sulfide.
- Water color and turbidity above the maximum allowable level.
- Un-controlled chlorine levels.
- High delta pressure on the media filters was reducing the flow rate.
- Microbiological contamination, especially by sulfate reducing bacteria.

Parameter	Existing Values	Required Value
Turbidity (NTU)	30	< 5
Coliform Forming Units (CFU/100 ml)	10,000	< 10
Color (UC)	100	< 15
Ferric (mg/l)	7	< 1
Manganese (mg/l)	2	< 0.2

Technical Solution:

The following processes were carried out:

- Pre filtration: 100 micron automatic back wash Arkal disc filtration system.
- Oxidation of Fe, Mn and H_2S: Lamela-Oxidation Process.
- Media Filtration: Catalytic Media Filters – implementing AFM®.

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DRYDEN AQUA SUSTAINABLE WATER QUALITY

Lamela-Oxidation-Reactor (L.O.R.) - installed

Lamela-Oxidation-Reactor (L.O.R.) - process

Water Cascade

AFM® Filters

Results:

Parameter	Required Value	Before treatment	After treatment
Turbidity (NTU)	5	30	0.5 ✓
Coliform Forming Units (CFU/100 ml)	10	10,000	nil ✓
Color (UC)	15	100	5 ✓
Ferric (mg/l)	1	7	0.3 ✓
Manganese (mg/l)	0.2	2	0.05 ✓

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