KATALOX LIGHT

Reconfiguration of the La Buena Mujer Drinking Water Treatment Plant

Successful implementation of KATALOX LIGHT® in gravity filters

La Paz, Baja California Sur, México

Project Background

The La Buena Mujer Drinking Water Treatment Plant, with a design flow of 70 L/s, supplies a significant portion of the population of La Paz, Baja California Sur. The source of supply is a surface reservoir, whose variable water quality caused significant challenges during the drinking water treatment process.

The local water utility, OOMSAPA La Paz, identified high concentrations of iron and manganese, resulting in yellow and orange discoloration of the water, continuous consumer complaints, and non-compliance with the Mexican drinking water standard NOM-127-SSA1-2021. Under these conditions, a reconfiguration of the treatment train was required, beyond simple operational adjustments.

Identified Problem

Raw water analyses showed the following concentrations:

- **Iron (Fe):** 2.9 mg/L
- **Manganese (Mn):** 2.76 mg/L

The original filtration system, based on sand and anthracite media in gravity filters with false-bottom underdrains, lacked the catalytic capacity required to ensure efficient and stable removal of these contaminants.

Areas of Opportunity

- Water Treatment Plants
- Food Industry
- Groundwater
- Surface Water
- Residential
- Process Water
- Stormwater
- Lateral Infiltration

Filters down to **3 microns**

Compatibility with multiple oxidants

NSF/ANSI 61

Packaging

Volume/Bag : 1 pie³ (28 L)
Weight/Bag : 30 kg
Bags/Pallet : 40 piezas
Weight/Pallet : 1,225 kg
Dimensions : 115×115×120 cm

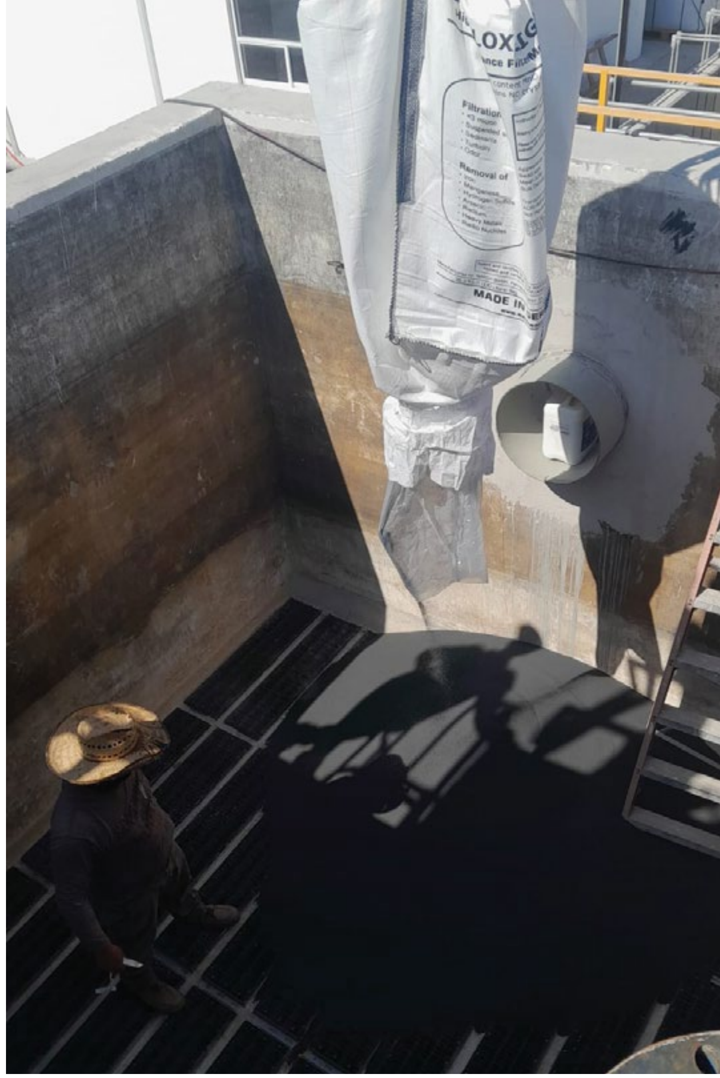
Visit our website

Download the technical data sheet

Watch-Water® GmbH
Fahrlachstraße 14, 68165 Mannheim, Germany
Tel. +49 621 87951-0
Fax +49 621 87951-99
info@watchwater.de

WATCHER WATCH WATER a Water Company

KATALOX LIGHT



Scope of the Solution

Reconfiguration with KATALOX LIGHT®

In December 2025, through Centrífugas y Equipos de México, the reconfiguration of the plant was carried out in coordination with OOMSAPA La Paz.

The main actions included:

- Optimization of sedimentation units and blowers
- Modifications to hoppers and hydraulic components
- Complete replacement of the filtration media, substituting sand and anthracite with **KATALOX LIGHT®,** a high-performance catalytic media based on natural zeolite impregnated with manganese oxides

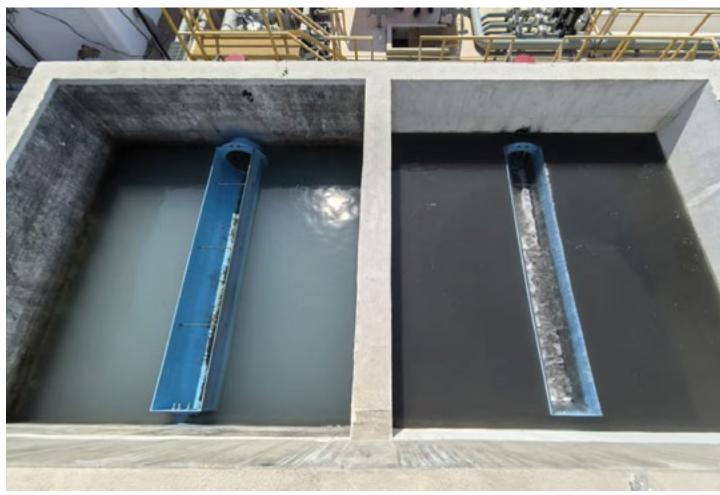
Key element of the project:

KATALOX LIGHT® was successfully implemented in gravity filters with false-bottom underdrains, without the need for structural modifications or additional civil works. This represents a significant technical and economic advantage for the rehabilitation of existing treatment plants.

Results Achieved

After system start-up and stabilization, the following results were obtained:

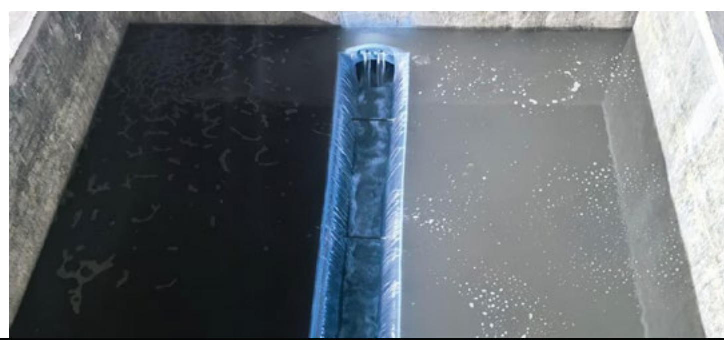
Parameter	Influent (mg/L)	Effluent (mg/L)	Removal
Iron (Fe)	2.9	0.037	**98.7 %**
Manganese (Mn)	2.76	0.0028	**99.9 %**



The effluent values fully comply with NOM-127-SSA1-2021, eliminating water discoloration and immediately improving its aesthetic and sanitary quality.

Conclusions

The reconfiguration of the La Buena Mujer Drinking Water Treatment Plant confirms that **KATALOX LIGHT®** is an effective, reliable, and replicable solution for the removal of iron and manganese from surface water sources with variable quality.



This project stands as a technical, operational, and commercial success story, demonstrating that **KATALOX LIGHT®** can be successfully integrated into gravity filters with false-bottom underdrains. It enables water utilities to comply with regulations, improve water quality, and optimize investments—without the need for new civil works.

Watch-Water® GmbH
Fahrlachstraße 14, 68165 Mannheim, Germany
Tel. +49 621 87951-0
Fax +49 621 87951-99
info@watchwater.de