

# YOUR PARTNER SPECIALIZED IN THE TREATMENT OF MINE WATER



### **ECOFIRMA**



Portugal



Angola



**Ivory Coast** 



Kenya



Algeria



Brazil



Senegal



Proven global presence

Ecofirma has been operating for more than two decades in the water treatment and water infrastructure sector on several continents, consolidating its expertise in strategic markets such as Europe, Africa and Latin America.

- Specialization in water treatment for complex infrastructures
- Expertise in large industrial and mining projects
- Integrated approach: diagnosis, engineering, implementation and maintenance
- Commitment to innovation and sustainability



#### **CLN Mining Port**

Nacala - Moçambique







Consulting to the Mozambican company IEC -INTERNATIONAL ENGINEERING COMPANY, in May 2018, to bid for the concession of the maintenance of the **hydraulic infrastructures** of the mining port of Nacala, belonging to CLN - Corredor Logístico de Nacala, which is participated by VALE DO RIO DOCE, where the shipment of coal extracted from the mines of Moatize, also owned by VALE, takes place.

From 2018 until today, it is ensured the assistance to IEC in the operation of the infrastructures.



#### **CLN Mining Port**

Nacala - Moçambique

#### **WATER TREATMENT PLANT**

It treats all domestic waste water from the Nacala complex of the entire railway line from Moatize to Nacala for a total of **5,000 h.eq.** 

## INDUSTRIAL WATER TREATMENT PLANT

It produces all industrial water from the mining port of Nacala, also recycling all rainwater and leach, with a flow rate of 125 m3/h

#### **DESALINATION PLANT**

Complement to water production for the Nacala complex, with a flow rate of **20 m3/h** 

#### **WATER SUPPLY NETWORK**

Includes the entire complex, firefighting and coal pile humidification network



#### Romano Mine

Montalegre - Portugal

Preparation between November 2019 and August 2021, of the technical studies of pre-engineering of the Romano mine, in Montalegre, namely at the level of prospecting of water resources and dimensioning of the hydraulic infrastructure of the mine and its complexes of the mining annex



#### Romano Mine

Montalegre - Portugal

WATER RESOURCES PROSPECTING STUDY

DOMESTIC WASTEWATER
TREATMENT PLANT

INDUSTRIAL WATER
TREATMENT PLANT

INDUSTRIAL WASTEWATER
TREATMENT PLANT

FIRE FIGHTING NETWORK



#### Romano Mine

Montalegre - Portugal

INDUSTRIAL WATER NETWORK

RAINWATER NETWORK

**PUMPING SYSTEM** 

POTABLE WATER NETWORK

SANITATION AND SEWAGE
NETWORK

**WATER STORAGE STRUCTURES** 



## Chitotolo Mine Cuango - Lunda Norte - Angola

Dimensioning of a **drinking water treatment system** and continuous supply of treatment chemicals for the Chitotolo mining complex located on the Cuango River in Lunda Norte.



#### Somiluana Mine

#### 70 Km Lucapa - Lunda Norte - Angola

At the Somiluana Mine, ECOFIRMA was responsible for the maintenance and repair of large-caliber water pumps, essential for the supply and water management of the mining complex.

#### The work included:

- Technical diagnosis and assessment of the pumps' hydraulic performance.
- Replacement and repair of critical components, including impellers, mechanical seals and bearings.
- Preventive and corrective maintenance, ensuring operational efficiency and reducing equipment downtime.
- Post-maintenance performance tests, ensuring optimized and continuous operation.

With this intervention, we guarantee the operational continuity of mining activities, preventing failures in the pumping systems and optimizing the unit's energy consumption.





#### Mucuanza Mine

Cuanza Sul e Malanje - Angola



At the Mucuanza Mine, ECOFIRMA maintained and repaired industrial motors, including WEG electric motors, used in various critical mining processes.

The services provided included

- Electrical and mechanical diagnostics to identify faults and inefficiencies.
- Repair and replacement of damaged components, such as bearings, windings and cooling systems.
- Balancing and alignment to reduce vibrations and improve energy efficiency.
- Load testing and calibration, ensuring proper performance after maintenance.

ECOFIRMA's work was fundamental in reducing unexpected downtime and increasing the useful life of the engines, ensuring the efficient operation of the mining unit and the continuity of production processes.





