LABORATORIO DE ANALISIS DE MATERIALES (LAM)
Materials Analysis Laboratory (LMA)
Mision and vision

Execute the physical and chemical analysis of water and soils samples, supported on current regulations and methodologies, with high quality control, with the purpose to support the production of reliable and timely soil and water information.

To be a water and soil test laboratory, recognized for its excellent service and quality of results.
Activities for soil analysis

Generate physical and chemical data to update national soils maps

Currently physical and chemical determinations are:

- pH relation 1:2:5
- Electric conductivity 1:5
- Total organic carbon
- Phosphorus for acid and alkaline pH soils
- Percentage of sand, clay and silt with textural classification
- Cations: sodium, potassium, calcium and magnesium
- Cation exchange capacity
- Percentage of saturation of sodium
- Percentage of saturation, as percentage of carbonates and percentage of sulphates
- Color in dry and wet samples
- Apparent density
Final products: Soil map, field and laboratory reports
Activities for water analysis

Generate data of physical and chemical analysis to update water (Surface and ground) maps

Surface water information (analysis of watersheds)
Groundwater (hydrogeological zones - aquifers)

Physical and chemical analysis of water include the following determinations

- pH
- Electric conductivity
- Total dissolved solids
- Nitrates

- Sulphates
- Total alkalinity
- Total chlorine
- Phosphates
Final products: Groundwater maps, integrated information of the watersheds studies for Mexico
Quality assurance on physical and chemical analysis of water and soil samples

LMA is working with the standard requirements of ISO 17025:2005 (NMX 17025:2006)

Also on transition to the standard, version 2017
Other activities

Environmental management system

1. Participation in internal and external environmental audits
2. PROFEPA certification (Federal government agency for environment protection)
3. Participation in the “national day for chemical emergencies” (DINAPREQ)
4. Application of Globally Harmonized System, according to the new versión of the NOM-018-STPS
Other activities

• **Soil erosion project under collaboration agreement**

• CONAFOR-INEGI agreement for laboratory analysis of soil samples and plant material from the national forest and soil inventory (INFyS).

• This project emerged from a memorandum of understanding between Norway and Mexico in the context of REDD plus (Reducing emissions from deforestation and forest degradation) activities, includes technical support from CONAFOR, administrative help from United Nations Development Program (UNDP) and financing from Norwegian government.

• 109 conglomerates (sampling sites) were received with a total of 2,445 samples, 1,170 of them were analyzed, they come from the states of Durango, Zacatecas and Aguascalientes.