# The CDD Society Laboratory

for Water/ Wastewater/ Faecal Sludge/ Compost Analysis

Spread over 120m<sup>2</sup>, the CDD Society Laboratory was established in 2010, to **conduct high quality analytical tests to support wastewater/DEWATS<sup>™\*</sup>** research activities. Later in 2017, with funding support from The Bill and Melinda Gates Foundation the laboratory was expanded to include **faecal sludge testing** capabilities as well.

The Laboratory is accredited by **National Accreditation Board for Testing Laboratories (NABL)** for water and wastewater analysis. It is also recognised as one of the six laboratories under the **Global Partnership of Laboratories for Faecal Sludge Analysis.** 

The laboratory has an array of advanced analytical instruments for the analysis of organic, chemical and biological parameters of water, wastewater, faecal sludge and compost samples.

\*Decentralised Wastewater Treatment Systems

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Accredited by

## **Scope of Services**

The laboratory staff is proficient in performing tests for the following parameters according to standard methods:

#### Water - Groundwater and Surface water

Alkalinity, Ammonia, Arsenic, Biological Oxygen Demand (BOD), Cadmium, Calcium, Chemical Oxygen Demand (COD), Chloride, Chlorophyll a, b, c, Chromate, Copper, Dissolved Oxygen, Electrical Conductivity, Fluoride, Iron, Lead, Magnesium, Manganese, Nickel, Nitrate, Nitrite, pH, Potassium, Sodium, Sulfate, Total Dissolved Solids, Total Hardness, Turbidity, Zinc, Total Coliform

#### Wastewater

Alkalinity, Ammonium, Arsenic, BOD, Calcium, Chloride, Chromate, COD , Copper, Density, Dissolved Oxygen, Electrical Conductivity, Fluoride, Iron, Lead, Nickel, Nitrate, Nitrite, pH, Phosphate, Settleable Solids, Sulfate, Total Organic Carbon (TOC), Total Dissolved Solids, Total Kjeldahl Nitrogen, Total Nitrogen, Total Phosphorus, Total Solids, Total Suspended Solids, Turbidity, Volatile Solids, E.coli, Faecal Coliform, Total Coliform

#### Faecal Sludge

Alkalinity, Ammonium, Arsenic, BOD, Calcium, Calorific Value, Chloride, Chromate, COD, Copper, Density, Electrical Conductivity, Fluoride, Iron, Lead, Moisture content, Nickel, Nitrate, Nitrite, pH, Phosphate, Settleable Solids, Sludge Volume Index, Sulfate, TOC, Total Dissolved Solids, Total kjeldahl nitrogen, Total Nitrogen, Total Phosphorus, Total Solids, Total Suspended Solids, Volatile Solids, E.coli, Faecal Coliform, Helminth eggs, Total Coliform

#### **Compost/Dried Sludge**

Calorific Value, Density, Electrical Conductivity, Moisture content, Nitrate, Nitrite, pH, Total Solids, Volatile Solids, E.coli, Faecal Coliform, Helminth eggs, Total Coliform

#### Manure

Ammonium, Nitrate, Phosphate

#### **Plant Elements**

#### Total Phosphorus

The laboratory enables easy, independent and reliable Research and Development activities to be carried out. Other benefits include: expert monitoring, quick turnover time for test reports, high degree of accuracy in test results and confidentiality of data from implemented projects.

### **Quality Assurance**

We are committed to providing professional high quality services. We assure quality test results by:

- Fostering a quality mind-set with the objective of developing and providing services, trusted and preferred by all, with minimum defects
- Maintaining a high professional level of staff and technical competence

- Using internationally-recognised and NABL approved testing methods
- Operating appropriate state-of-the-art
  equipment
- Implementing and maintaining a robust laboratory management system

Through continuous assessment of ongoing delivery of services, we ensure that the quality of results is maintained.

# Recognition

#### NABL Accreditation (ISO/IEC 17025: 2017)

As of 9<sup>th</sup> September, 2020, we are a NABL-accredited laboratory. The accreditation is valid for a period of 2 years, post which renewal will be required. The Scope of Accreditation includes:



Water – Ground water and Surface water
 Pollution and Environment – Wastewater

Accredited parameters are Alkalinity, Ammonium, Biochemical Oxygen Demand (5 day @ 20°C), Calcium, Chemical Oxygen Demand, Chloride, Chromium (IV), Electrical Conductivity, Fluoride, Lead, Nitrate, Nitrite, pH, Phosphate, Sulphate, Total Dissolved Dolids, Total Hardness, Total Kjeldahl Nitrogen, Total Nitrogen, Total Phosphorus and Total Suspended Solids.

#### Global Partnership of Laboratories for Faecal Sludge Analysis

The CDD Society Laboratory is one of the six laboratories under the Global Partnership of Laboratories for Faecal Sludge Analysis. The other five laboratories belong to the following organizations:

- The IHE Delft Institute for Water Education
- The University of Kwa-Zulu Natal (Pollution Research Group)
- The Swiss Federal Institute of Aquatic Science and Technology





- The Asian Institute of Technology

This Partnership was setup to address challenges in faecal sludge research and to work towards standardized methods for the characterization and quantification of faecal sludge, including sampling techniques and health and safety procedures for faecal sludge handling.



### Instruments



### Lab Staff

Our team comprises of professionals from academic backgrounds of Environmental Sciences and Engineering. They are proficient in performing analysis of water, wastewater, faecal sludge and compost samples and have a very strong command over the subject. As the field of water/wastewater/faecal sludge is constantly evolving, the staff constantly keep themselves up-to-date with major developments in the sector.



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