

Best Practices- I

Title: Environmental Sciences Laboratory, Department of Environmental Sciences has been granted accreditation by National Accreditation Board for Testing and Calibration Laboratories (NABL) for analysis of few parameters of wastewater.

Objective:

- To prepare the Environmental Sciences Laboratory for analysis of environmental samples as per the international standards.
- To make the faculty members competent for the analysis of wastewater samples.
- To regularly check the potability of drinking water supplied in the college as well as to monitor the quality of ETP and STP outlet water.
- To obtain certified and validated results of wastewater analysis.
- To provide analytical services for the analysis of effluents samples from different industries.

Context:

The management of B. K. Birla College has always been keen on the quality development of the college. With the funds sanctioned by the management (under CSR, Century Rayons, Shahad and B. K. Birla College) and support provided by the Director (Education) and Principal of the college, Environmental Sciences Laboratory, Department of Environmental Sciences, B. K. Birla College (Autonomous), Kalyan had applied for Accreditation to National Accreditation Board for Testing and Calibration Laboratories (NABL) for the wastewater parameters (*viz.* pH, turbidity, BOD, COD, TDS, TSS, oil and grease, chlorides, and heavy metals (*viz.* total chromium, cobalt, cadmium, copper, lead, iron, zinc, and nickel).

The Advisory Committee for NABL accreditation is as follows:

Sr. No.	Member
1	Shri. Subodh Dave – Chairperson Vice-Chairman B. K. Birla College, Governing Council
2	Dr. Naresh Chandra Director (Education), BKBCK
3	Dr. Avinash Patil Principal, BKBCK
4	Dr. Sandeep Naik Deputy General Manager- QA Lab, IMS, B. Ex., Century Rayons, Shahad Authorized Signatory, NABL, Century Rayon Laboratory, Shahad
5	Mr. Ganesh Kumbhar Deputy Manager- QA Lab, Century Rayons, Shahad Authorized Signatory, NABL, Century Rayon Laboratory, Shahad
6	Dr. Bharat Tarmale Assistant Manager- QA Lab, Century Rayons, Shahad Quality Manager, NABL, Century Rayon Laboratory, Shahad
7	Dr. Maninder Kaur Dhaliwal Vice Principal (Science), BKBCK
8	Dr. Sandesh Jaybhaye Assistant Professor, Dept. of Chemistry, BKBCK
9	Dr. Sonal Tawde - Technical Manager and Authorized signatory Incharge, Dept. of Environmental Sciences, BKBCK
10	Dr. Vandana Gupta – Quality Manager and Authorized signatory Assistant Professor, Dept. of Environmental Sciences, BKBCK
11	Dr. Shivani Kakkar Khanna - Technical Staff Assistant Professor, Dept. of Biotechnology, BKBCK
12	Ms. Shruti Shah - Technical Staff Assistant Professor, Dept. of Bioanalytical Sciences, BKBCK

The online application was filed on 22nd March 2022 on NABL portal. The schedule of the assessment by the NABL team was as follows:

- The preassessment was conducted on 9th May 2022 by Mr. Paul Prasanna, Lead Assessor, NABL. The laboratory was given some suggestions for improvement and the same were fulfilled by 25th May 2022.
- The main assessment was conducted on 2nd and 3rd July 2022 by Mr. Paul Prasanna, Lead Assessor, NABL and Ms. Anju Jain, Technical Assessor, NABL.
- After the assessment, the NABL team verified the submitted documents and informed the grant of NABL accreditation to the Environmental Sciences Laboratory in accordance with ISO/IEC 17025:2017 in the discipline of Chemical testing as per the scope recommended by the assessment team on 9th August 2022. B. K. Birla College is among the very few colleges in India to get one of its laboratories accredited by the NABL.



National Accreditation Board for
Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

**ENVIRONMENTAL SCIENCES LABORATORY,
DEPARTMENT OF ENVIRONMENTAL SCIENCES, B. K.
BIRLA COLLEGE OF ARTS, SCIENCE AND COMMERCE
(AUTONOMOUS)**

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

BIRLA COLLEGE ROAD, KALYAN, THANE, MAHARASHTRA, INDIA

in the field of

TESTING

Certificate Number: **TC-10904**

Issue Date: **09/08/2022**

Valid Until: **08/08/2024**

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued
satisfactory compliance to the above standard & the relevant requirements of NABL.
(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Identity : **KALYAN CITIZENS' EDUCATION SOCIETY'S- B. K. BIRLA COLLEGE OF ARTS,
SCIENCE AND COMMERCE (AUTONOMOUS)**

Signed for and on behalf of NABL



**N. Venkateswaran
Chief Executive Officer**

The NABL certified laboratory checks the quality of water at the ETP inlet, STP inlet and STP outlet regularly. The services are essential for the Green Audit and Water Audit of the College. The water analysis helps to check whether the treated water can be used in the college itself for flushing in the restrooms or gardening purposes.

These services are essential for the industries as per the Maharashtra Pollution Control Board. The NABL certified Laboratory of BKBCK offers these services at a reasonable rate which is 10% lower than MPCB. Kalyan-Dombivli industrial region has more than 900 industrial units which can benefit from the services provided by the College.

The analytical services offered by the Environmental Sciences Laboratory also include regular checking of quality of the drinking water and filtered water. It is one of the best practices in the college. It is a community service provided in the college. The students also get the opportunity to go for sampling work at various locations and gain practical experience.

Practice:

Environmental Sciences Laboratory offers sampling and analysis of wastewater (under scope of NABL accreditation). It also conducts sampling and analysis of air, drinking water, soil and sludge along with noise monitoring (the laboratory will apply to NABL for these activities under scope expansion).

The students of M. Sc. Environmental Sciences go for the sampling purpose after fulfilling the necessary requirements. The analysis is done by the technical staff of the NABL laboratory. The staff members of NABL laboratory have completed 3 days online training on 'General Requirements for the Competence of Testing and Calibration Laboratories and Internal Audit as per ISO/IEC 17025: 2017 conducted by IDEMI, Chembur. In addition, the quality manager and technical manager have completed two days online 'Workshop on Estimation and Expression of Uncertainty in Measurement as per NABL-141' conducted by IDEMI, Chembur. The laboratory also participates in a Proficiency testing program and checks certified reference material annually to check its technical competency. All the instruments are calibrated from NABL certified laboratory. The chemicals used are of analytical grade while A grade glassware is used for the analysis. The laboratory also carries out intermediate checks quarterly to maintain its competency. The laboratory maintains records of all the above activities.

Evidence of the success:

After analysis, the laboratory issues test reports of all the analysis done and it is signed by the authorized signatory.

Problems encountered and resources required:

Since the faculty members of Environmental Sciences Laboratory are primarily involved in teaching and other departmental and college activities, sometimes (especially during exams), there exists a problem with regular Laboratory activities. But due to the support of the college authorities, the related staff members get relaxation in college work and hence the laboratory work takes place smoothly. Further, even though the laboratory has all the necessary requirements to carry out the work smoothly, but laboratory has no backup instruments in case any instrument fails to work. This issue is also taken care of, and laboratory can use the instruments available in NABL accredited Rayon Chemicals Laboratory, Century Rayon, Shahad.

Photo gallery





