

**DEPARTMENT OF MINING AND GEOLOGY**  
(Government of Kerala)

Request for

**EXPRESSION OF INTEREST (EOI)**

for

**Selection of Technical Consultant for NABL Accreditation Services for the  
Chemical Lab of Department of Mining and Geology, Government of Kerala,  
Functioning at Thiruvananthapuram**

**JULY 2025**

**Director of Mining and Geology.**  
Kesavadasapuram, Pattom P.O, Thiruvananthapuram - 4,  
Ph: 0471 2556790; Fax: 0471 - 2447429;  
e-mail: [director.dir.dmg@kerala.gov.in](mailto:director.dir.dmg@kerala.gov.in)

**DIRECTORATE OF MINING AND GEOLOGY**  
(Government of Kerala)

**CHEMICAL LABORATORY**

Kesavadasapuram, Pattom P.O, Thiruvananthapuram - 4, Ph: 0471 2556790;

Fax: 0471 - 2447429; e-mail: [director.dir.dmg@kerala.gov.in](mailto:director.dir.dmg@kerala.gov.in)

**EXPRESSION OF INTEREST (EOI)**

**Selection of Technical Consultant for NABL Accreditation Services for the Chemical Lab of  
Department of Mining and Geology Government of Kerala  
functioning at Thiruvananthapuram**

**The Objective**

The objective of the accreditation is to improve the extent, the quality, reliability and acceptability of chemical analysis of samples such as Clay, Silica sand, Laterite and Rock etc.

The consultancy services for “**Selection of Technical Consultant for NABL Accreditation Services for Chemical lab of Mining and Geology Department Thiruvananthapuram**” will broadly involve

1. All type of services stipulated in the Terms of Reference (ToR) , to facilitate the entire process for obtaining NABL accreditation to the chemical lab functioning under Department of Mining and Geology located at Thiruvananthapuram for specific scope as given below.
2. Specific scope of the assignment include achievement of NABL recognition for chemical lab for the parameters Loss on Ignition (LOI), Iron oxide, Aluminium oxide, Calcium oxide, Magnesium oxide, Titanium dioxide, and Silicon dioxide in samples such as Clay, Silica sand, Laterite and Rock etc.
3. Consultant shall provide guidance on the necessary infrastructure, equipment, documentations and quality management system to meet NABL accreditation standards.
4. Conduct of *Internal Auditing* to ensure that the procedures and documentation are as per ISO/IEC 17025(2017) NABL guidelines.
5. Management Review regarding all the Standard Operational Procedures and the norms, Assessment of Analytical equipment and other instruments, quality of

Chemicals and Glass wares used for the mentioned parameters, which are to be accredited by NABL.

6. *Proficiency Testing* (PT) as per schedule to cover all the parameters within a stipulated time period.
7. *Inter Lab Comparison Test* (ILCT) of all the parameters with a NABL certified laboratory.
8. Imparting awareness to the employees associated with the laboratory including Deputy director in charge of chemical lab, Geologist and other administrative staff.
9. NABL Application process and auditing.
10. Achievement of NABL Certification.
11. The consulting services include scope of work as specified in the Terms of Reference (ToR). The Terms of Reference consisting of scope of work, Methodology, Functions and Responsibilities, Qualification Criteria etc. in respect of consultancy services shall be a part of the EoI.
12. Interested consultants may obtain further information at the address below from 10.15 hrs to 17.15 hrs Monday to Saturday, except Government holidays.
13. The proposal must include the following documents complying the conditions stipulated in the ToR
  - ✓ Duly filled and signed letter of offer.
  - ✓ Curriculum Vitae (CV) of the expert.
  - ✓ Description on the experience of the proposer in the field of assignment.
  - ✓ Qualification and competency.
  - ✓ Documentary evidence of assignments of similar nature carried out by the proposer.
14. Expression of Interest with all relevant information and documents must be submitted in sealed cover / envelope super scribed “ **Expression of Interest for Selection of Technical consultant for providing NABL Accreditation Services for The Chemical Lab Department of Mining and Geology at Thiruvananthapuram**” to the address below, by not later than 15.00 hours on 16/07/2025. In case this last date being declared as holiday, due date for submission of above EOI will be the next working day at the same appointed time.
15. The undersigned reserve the rights to partially or fully modify / cancel the Expression of Interest without assigning any reasons whatsoever and its decision shall be final and binding on all the applicants.

**Director of Mining and Geology.**  
Ph: 0471 2556790; Fax: 0471 - 2447429;  
e-mail: [director.dir.dmg@kerala.gov.in](mailto:director.dir.dmg@kerala.gov.in)

## **Terms of Reference (ToR)**

### **For the Selection of Technical consultant for NABL Accreditation Services for the Chemical Lab of Department of Mining and Geology Government of Kerala functioning at Thiruvananthapuram**

#### **Introduction**

Chemical lab in Mining and Geology is the only one lab in Kerala under Government sector carrying out analysis of ores and minerals. Samples include Clay, Bauxite, Laterite, Silica sand etc. Beneficiaries of the laboratory include public, research scholars and students. It may also be noted that no such NABL accredited lab is available in Kerala.

#### **Scope of Work**

The scope of accreditation of a laboratory is the formal statement of the range of activities for which the laboratory has been accredited; the scope is recorded in detail on a laboratory's accreditation certificate. A laboratory's scope should be defined as precisely as possible so that all parties concerned know accurately and unambiguously the range of tests / Limit of quantification (LOQ) / Limit of Detection (LOD) and / or analyses covered by that particular laboratory's accreditation.

Specific scope of the assignment include achievement of NABL recognition for chemical analysis of samples like Clay, Silica sand, Laterite and Rock for the parameters Loss on Ignition (LOI), Iron oxide, Aluminium oxide, Calcium oxide, Magnesium oxide, Titanium dioxide, and Silicon dioxide.

Consultancy service is needed to cover the entire requirement as per ISO / IEC 17025:2017 from Pre NABL preparedness up to issuance of accreditation certificate to the Lab

#### **Methodology**

To accomplish the task for obtaining the accreditation of laboratory associated with the analysis of Clay, Bauxite, Laterite, Silica sand etc. services of consultancy firms are required. The methodology of work is provided herewith and shall not restrict to achieve the goal of obtaining accreditation of laboratory.

The consultancy services extended towards acquisition of ISO / IEC 17025:2017 accreditation for Laboratories by the consultant shall be in line with NABL requirement. The work of acquisition of ISO / IEC 17025:2017 accreditation will be carried out in 6 months. The Consultant shall advise laboratories, well in advance, about the jobs to be undertaken in connection with the acquisition of ISO 17025:2017 accreditation, as required.

#### **Activities to be carried out by the Consultant**

The consultant shall provide services to the various activities mentioned under each category as detailed below for achieving the objective of the project.

Sl. No.	Activity	Scope of Work
1	Preparation of Quality Manuals, Management System Procedures (MSP), Standard Operating Procedures (SOP), Registers and other relevant document	(i) Consultant shall act as facilitator in development and approval of documentation suitable to Laboratories need for its implementation and meeting requirements of ISO/IEC 17025:2017 (ii) Preparation of Quality Manual which includes description of all elements given in the standard. (iii) Preparation of Management System Procedure (MSP), Standard Operating Procedures (SOPs) (iv) Framing the formats as per ISO / IEC 17025:2017 requirements. (v) Review of existing SOP's and manuals
2	Verification of Facilities and personnel	Guiding for preparation of required documents : (i) Verification of measurement testing, Calibration and traceability (ii) Verification of Facilities and personnel <ul style="list-style-type: none"> <li>● <b>Personnel</b></li> <li>● <b>Equipment</b> : Suggest all required equipment and accessories as per scope</li> <li>● <b>Calibration</b>: Guidance for calibration of equipment from accredited labs</li> <li>● <b>Method validation</b>-Chemical analysis using Atomic Absorption Spectrophotometer(AAS)</li> <li>● <b>Accommodation/environment conditions</b></li> <li>● <b>Test methods and method validation</b></li> <li>● <b>Uncertainty Calculation</b></li> <li>● <b>Sampling and Handling of Samples</b></li> <li>● <b>Assuring the quality of test results</b></li> <li>● <b>Reporting of results</b></li> </ul>
3	Guiding for implementation of the system to Laboratory staff	Guiding for implementation of: <ol style="list-style-type: none"> <li>(i) Management system, Document control</li> <li>(ii) Purchasing services and supplies</li> <li>(iii) Service to customers</li> <li>(iv) Complaints and Improvement</li> <li>(v) Control of non-confirming work</li> <li>(vi) Corrective and preventive action</li> <li>(vii) Control of records</li> </ol>
4	Providing awareness training to Laboratory staff & officials on ISO /IEC 17025:2017	The programme should be in the form of workshop /seminar to generate awareness of ISO/IEC17025:2017 for laboratory personnel. It would also help them fulfill their roles as members of steering committee in monitoring overall process of system development, implementation and identify a working group to steer the process of system development and implementation In line with NABL requirement.

5	Providing internal auditor's training based on ISO / IEC 17025 :2017for Officers of labs	<ul style="list-style-type: none"> <li>(i) The objective of the programme shall be to provide training to personnel to become competent internal auditors of ISO /IEC 17025:2017 with international guidelines.</li> <li>(ii) The programme should cover topics such as audit objectives, audit methodology and reporting system as per requirements of ISO / IEC 17025:2017.</li> <li>(iii) In addition to classroom and practical training, on the job audit activity exercises shall be carried out So that auditors to be fully familiar with the</li> </ul>
6	Guiding for Internal Audit, Management review meeting and submission of application	<ul style="list-style-type: none"> <li>(i) Consultant shall guide for conducting internal audit and reporting results</li> <li>(ii) Consultant shall guide when conducting management review meeting and preparation of minutes</li> <li>(iii) Submission of application for accreditation to NABL</li> <li>(iv) Submission of quality manual to NABL for adequacy by lead assessor</li> <li>(v) Updating quality manual as suggested by Lead Assessor (NABL)</li> </ul>
7	Pre-assessment audit by NABL	<ul style="list-style-type: none"> <li>(i) Consultant shall be present at the time of pre- assessment audit by accreditation body and guide for closing the observations given by accreditation body</li> <li>(ii) Submission of any corrective actions to NABL</li> </ul>
8	Final Audit by NABL	<ul style="list-style-type: none"> <li>(i) Consultant shall be present at the time of Final audit by accreditation body and guide for closing the observations given by accreditation body.</li> <li>(ii) Submission of any corrective action to NABL</li> </ul>

## Implementation Chart for NABL Accreditation as per ISO/IEC17025:2017

Activity
<ul style="list-style-type: none"> <li>➤ GAP analysis:               <ul style="list-style-type: none"> <li>(i) Suggest infrastructure changes / requirement</li> <li>(ii) Scope finalization for accreditation</li> <li>(iii) Calibration requirement</li> <li>(iv) Documented system design requirement</li> <li>(v) Any installation requirement of equipment</li> <li>(vi) Any other facility changes requirement</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>➤ Documentation preparation (<i>Quality Manual, SOPs and files and formats</i>)</li> </ul>
<ul style="list-style-type: none"> <li>➤ Documentation hand over and training for implementation (<i>Quality Manual, SOPs, QMSP and formats</i>)</li> </ul>
<ul style="list-style-type: none"> <li>➤ Assist laboratories to acquire Inter-laboratory comparison test and calibration of Equipment &amp; glassware certificates and all documents required for NABL application</li> </ul>
<ul style="list-style-type: none"> <li>➤ Undertaking any check to verify testing / calibration capacity of the laboratory &amp; witnessing the testing / calibration / sampling being performed relevant to Accreditation.</li> </ul>
<ul style="list-style-type: none"> <li>➤ NABL Application preparation &amp; sending application to NABL.</li> </ul>
<ul style="list-style-type: none"> <li>➤ Implementation of Quality System</li> </ul>
<ul style="list-style-type: none"> <li>➤ Quality system development</li> </ul>
<ul style="list-style-type: none"> <li>➤ On-job training for all concerned staff</li> </ul>
<ul style="list-style-type: none"> <li>➤ Training on documentation</li> </ul>
<ul style="list-style-type: none"> <li>➤ Training on system implementation</li> </ul>
<ul style="list-style-type: none"> <li>➤ Training on quality control</li> </ul>
<ul style="list-style-type: none"> <li>➤ Training on pre-analytical errors</li> </ul>
<ul style="list-style-type: none"> <li>➤ Training on document control</li> </ul>
<ul style="list-style-type: none"> <li>➤ Monitoring quality system</li> </ul>
<ul style="list-style-type: none"> <li>➤ Guiding in Pre-assessment by NABL</li> </ul>
<ul style="list-style-type: none"> <li>➤ Closure of non-conformance</li> </ul>
<ul style="list-style-type: none"> <li>➤ Assist laboratories at the time of final assessment by NABL</li> </ul>
<ul style="list-style-type: none"> <li>➤ Obtaining final NABL accreditation for laboratory.</li> </ul>
<ul style="list-style-type: none"> <li>➤ Any other jobs relevant for obtaining NABL accreditation for laboratory</li> </ul>

## Technical Consultant's Qualification, Experience and Other Requirements

Educational Qualifications	Experience	Other requirements
Masters/M.Sc.in Science, preferably in Chemistry or BE/B.Tech in Chemical Engineering or BE/B.Tech in Environmental Engineering	<ul style="list-style-type: none"> <li>● Overall 10 years working experience in NABL accredited lab with adequate knowledge in Quality Assurance ,Laboratory Management, Auditing, Certification and Training ( Desirable: should have carried out similar assignments in chemical analysis of ores and minerals)</li> <li>● 5 years experience as Trainer</li> <li>● Working experience at the capacity as Lab Manager/Head of Lab</li> <li>● Minimum 5years experience as consultant for NABL</li> </ul>	<ul style="list-style-type: none"> <li>● Should have sufficient manpower/ material/technical resources</li> <li>● Should render technical support/help in implementing /acquiring the Certificate within a specified time frame.</li> <li>● Should furnish the documentary evidences in support by providing copy of contract agreement / work order along with endorsed completion certificate issued by the party with whom the contract has been entered</li> <li>● Consultant must not be banned or debarred or blacklisted by any State Govt. / Central Govt. /Central or State Govt. Undertakings</li> <li>● Total estimated completion period for the assignment would be for a period of 6(Six)months from the date of signing of the contract</li> </ul>

### Consultancy Charges

- The consultant has to offer consultancy charges for this assignment including all taxes and TA / DA for all lab visits, accommodation charges and all other expenditures in the proposal. *(Department will not arrange any such facilities for the consultant.)*
- NABL accreditation charges, PT Charges, cost of CRM / Instruments / Lab Consumables / Calibration charges / Testing charges / Lab modification etc. will be excluded from consultancy charges since these expenditures will be in the scope of the client / purchaser.

### Evaluation Criteria

Sl No	Details	Marks
1	<b>Qualification</b> Minimum qualification MSc. in Chemistry , BE / B. Tech in Chemical Engineering.	25
2	<b>Experience</b> Minimum10 yrs experience in Quality Assurance, Laboratory Management, Auditing, Certification and Training.	30
3	<b>Consultancy Service</b> Minimum 5 yrs experience in Geochemical lab	20
4	<b>Training Management</b> Minimum 5 years' experience as Trainer	25

### Method of Selection

Based on the criteria as mentioned in the above table, the Consultant with highest score shall be selected. The selection of the consultant shall be the decision of the Committee constituted to the effect for the technical evaluation of the proposals submitted and it will be the final.

### General Conditions

The contract will come into force from the date of signing of the agreement. The successful consultant / proposer is required to sign a contract within seven days from the date on which Notification of Award is dispatched to the proposer.

The successful consultant shall be required to execute a contract in non-judicial stamp paper for Rs.200/- (*Rupees Two hundred only*) or as per the prevailing rules of Govt. of Kerala.

### Time schedule of deliverables

Sl. No	Task	Deliverable	Timelines after signing of contract
1	a. Initial Consultation GAP analysis b. Development of protocol for physical audit of laboratories c. Schedule of visits to laboratory and communication of format for inventory of laboratory and requirement for NABL Accreditation	Submission of Inspection report to client	<i>10 days</i>
2	a. Preliminary visit to laboratory Verification of facilities and personnel b. Assessment on infrastructure changes / requirement and suggestions c. Inventory of equipment Additional requirement of equipment as per scope and finalisation of technical specification of instruments d. Calibration requirement e. Documented system design requirement f. Installation requirement of equipment g. Any other facility changes requirement	Submission of status Report on the available assets, instrumentation, manpower and identification of requirements for conformity/compliance for NABL Accreditation to client List of additional equipment with technical specification	<i>20 days</i>
3	Preparation of Quality Manuals, Management System Procedures (MSP), Formats and SOPs, Registers	Submission of draft Quality Manuals, Management System Procedures (MSP), Formats and SOPs, Registers to client	<i>30 days</i>
4	Guiding for implementation of the system to Laboratory staff, Internal Audit, Management Review Meeting and submission of	Organise training a. awareness for senior level officers. b. orientation for laboratory personnel on ISO/IEC 17025:2017	<i>30 days</i>

	application.	<ul style="list-style-type: none"> <li>c. internal auditor's training based on ISO/IEC17025:2017</li> <li>d. Implementation of quality system, development of documentation, quality control, pre-analytical errors, document control, Uncertainty calculation Pre-assessment by NABL, Closure of non- conformance</li> <li>e. Implementation Assistance including identifying the PT provider and guiding the lab for sending samples for proficiency test</li> </ul>	
5	Assist laboratories to acquire inter laboratory comparison test and calibration of equipment & glassware certificates and all documents required for NABL application	<ul style="list-style-type: none"> <li>a. Undertaking any check to verify analytical capability of the laboratory</li> <li>b. Ensure the correctness of analysis being performed at Lab, Internal calibration</li> </ul>	<b>30 days</b>
6	NABL Application preparation & sending application to NABL.	<ul style="list-style-type: none"> <li>a. Submit draft application to client</li> <li>b. Provide post application assistance to comply with all requisites as per NABL norms</li> </ul>	<b>10days</b>
7	Pre-assessment audit by NABL	Schedule pre assessment audit	<b>10days</b>
8	Assist laboratory at the time of final assessment by NABL	Final audit preparation and guidance Need based presence along with client	<b>40days</b>
9	Review application in case of major non-conformity	Resubmit draft application to client after corrective measures	

### Payment schedule against deliverables

SI.No	Task	Deliverable	Payment schedule
1	<ul style="list-style-type: none"> <li>a. Initial Consultation GAP analysis</li> <li>b. Development of protocol</li> </ul>	<ul style="list-style-type: none"> <li>Submission of Inspection report to client</li> <li>Submission of status Report on the available assets, instrumentation,</li> </ul>	<b>20% of the contract price</b>

	<p>for physical audit of laboratories</p> <p>c. Schedule of visits to laboratory and communication of format for inventory of laboratory and requirement for NABL Accreditation Preliminary visit to laboratory</p> <p>d. Verification of facilities and personnel Assessment on infrastructure changes / requirement and suggestions</p> <p>e. Inventory of equipment Additional requirement of equipment as per scope and finalisation of technical specification of instruments</p> <p>f. Calibration requirement</p> <p>g. Documented system design requirement</p> <p>h. Installation requirement of equipment</p> <p>i. Any other facility changes requirement</p>	<p>manpower and identification of requirements for conformity / compliance for NABL Accreditation to client List of additional equipment with technical specification.</p>	
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2	<p>Preparation of Quality Manuals, Management System Procedures (MSP), Formats and SOPs, Registers</p> <p>Guiding for implementation of the system to Laboratory staff, Internal Audit, Management Review Meeting and submission of application</p> <p>Assist laboratories to acquire inter laboratory comparison test and calibration of equipment &amp; glassware certificates and all documents required for NABL application</p>	<p>Submission of draft Quality Manuals, Management System Procedures(MSP), Formats and SOPs, Registers to client</p> <p>Organize training (i) awareness for senior level officers (ii) orientation for laboratory personnel. on ISO/IEC 17025:2017(iii)internal auditor's training based on ISO /IEC 17025 :2017 (iv) Implementation of quality system, development of documentation, quality control, pre-analytical errors, document control, Uncertainty Calculation Pre-assessment by NABL, Closure of non-conformance Implementation Assistance including identifying the PT provider and guiding the lab for sending samples for proficiency test</p> <p>Undertaking any check to verify analytical capability of the laboratory Ensure the correctness of analysis being performed at Lab, Internal calibration sampling being performed relevant to accreditation</p>	<b>50% of the contract price</b>
3	<p>NABL Application preparation &amp; sending application to NABL</p> <p>Completion of Pre-assessment audit by NABL</p> <p>Completion of final assessment by NABL</p> <p>Completion if Review application in case of major non-conformity</p> <p>Certification</p>	<p>Submit draft application to client Provide post application assistance to comply with all requisites as per NABL norms</p> <p>Scheduling pre assessment audit</p> <p>Final audit preparation and guidance Need based presence along with client</p> <p>Resubmission draft application to client after corrective measures</p> <p>Acquiring certification from NABL</p>	<b>30% of the contract price</b>

### Conditions for Payment

- The payment will be made after successful completion of the activities as mentioned in the above Payment Schedule by the consultant and submission of Invoice to the undersigned in duplicate.
- The payment will be made in Indian Rupees (INR) only.
- Taxes/Deductions as applicable, will be deducted as per the prevailing rules and regulations of Govt. of Kerala

## Annexure 1

**Letter of Offer**

*(The consultant shall furnish the offer letter and other details in the given format and submit on or before the last date)*

To

The Director  
Department of Mining and Geology  
Kesavadasapuram

**Name of Work: Selection of Technical Consultant for NABL Accreditation Services for the Chemical Lab of Department of Mining and Geology Government of Kerala functioning at Thiruvananthapuram**

Sir,

I hereby offer my willingness to provide the consultancy services as detailed in the

Expression of Interest (EoI) and Terms of Reference (ToR) as referred above.

I hereby confirm that,

- I offer to provide consulting services from the date of signing of contract in conformity with the EoI and in accordance with the conditions stipulated in the ToR, which is part of the EoI.
- The total consultancy charges for the assignment as per the scope and methodology is furnished in the Price offer attached as **Annexure:4**
- I agree to accept the payment conditions as per the Payment schedule mentioned in the ToR
- As a consultant, I meet the eligibility requirements for the assignment as per the EoI. I have not been suspended, debarred or blacklisted by any Central or State Government organizations.
- It is ensured that strict confidentiality shall be maintained on all technical / administrative and financial matters. Further, I am committed to protect the data and records of this assignment as well.

*Signature*

Name :

Address :

Place & Date :

## Annexure2

**Format of Curriculum Vitae (CV)**

Name :

Profession :

Date of Birth :

Nationality :

Educational Qualification :

Employment Record :

Experience in the field of Assignment:

Achievements :

Certification :

*Signature*

Name & Address :

Place & Date :

***(Furnish copies of certificates proving Educational Qualification)***

## Annexure3

**Details of assignments of similar nature successfully completed in the past 5yrs**

- 1.
- 2.
- 3.
- 4,5,6.....

*(Please attach copies of the documentary evidence)*

Place  
Date

*Signature*  
Name &Address

Annexure4

**Price Offer**

Description	Rate (In	Tax (In	Total price including all
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	Rs.)	Rs.)	taxes (In Rs.)
1	2	3	4
Selection of Technical Consultant for NABL Accreditation Services for the Chemical Lab of Department of Mining and Geology Government of Kerala functioning at Thiruvananthapuram			

I agree to provide the above services with the terms & conditions stipulated in the EoI & ToR for a total contract price of Rs.....(in figures)  
 ..... (in words).

Place  
Date

*Signature*  
Name & Address