

JOB TITLE: LABORATORY TECHNICIAN

ROLES AND RESPONSIBILITY	DAILY ACTIVITIES
<p>The job of a laboratory technician is made up of a wide range of activities including aspects of testing, design and quality control of construction materials.</p> <p>Advising clients and civil engineers on construction materials and their application, both in meetings and on construction sites.</p> <p>The Laboratory Technician is responsible for testing (Asphalt, Concrete and Soil) and ensuring the quality of raw materials.</p>	<p>The following is a typical day in the life of a Laboratory Technician:</p> <ul style="list-style-type: none"> • go out to site to obtain samples or the foreman will deliver the samples; • conduct the testing; • write reports and provide feedback to Management; • planning and managing the laboratory and its staff; • assisting in the laboratory helping with advanced and new testing methods; • resolving problems - especially with unusual soil and aggregate samples, and special concrete mix designs; • attend contract planning and site meetings when special construction material related matters are discussed; • visit sites on a regular basis.

QUALIFICATION PRE-REQUISITE	CAREER DEVELOPMENT
<p>Grade 12 with Mathematics or a completed Learnership in Material Testing NQF Level 2 to 4.</p> <p>To progress to senior levels one should have a National Diploma in Civil Engineering.</p>	<p>Most certainly. Initially you will be doing a lot laboratory testing as well as the collection of material samples in the field. The next stage will be managing specialist sectors of Laboratory and then a whole laboratory.</p> <p>You become part of project teams as you take the role on as a advisor on aspects of Material specification, procurement, handling, utilization, production of construction materials such as concrete and road surfacing as well as quality, maintenance and repair.</p>

SKILLS MOST USED
<p>The following important qualities are required:</p> <ul style="list-style-type: none"> • You must believe in team work • You must be punctual • You must be eager to learn • You must be committed to your work • You must be hard working; • an interest in science and technology are fundamental, but need to be backed up with sound mathematical skills and a practical hands-on approach to your work; • You will often be apart of a team so team work is important as will be an ability to manage people as your responsibilities increase with time.



CHALLENGES
<ul style="list-style-type: none"> • The main challenge is the vast variety of construction materials you are involved with, • The raw materials such as aggregates which are different with every contract, the Manufactured materials such as cement, admixtures and Bitumen we incorporate in our concrete and road works and the challenge of producing consistent end products which are both cost effective and which comply with the clients specification. • Other challenges are always people, these who report to you, those you work with in the company. • Your objectives is to help them all to get the project completed to specification, on time and with in budget.

JOB SATISFACTION	ADVICE FOR JOB SEEKERS
<ul style="list-style-type: none"> • When the project is finish and you see the structure standing, you feel proud because you were part of the contract. • I also enjoy working in a team of people • Every time your work gets appreciated, you know that you have done your work well and you want to continue to do it well • It is difficult choosing a single highlight as virtually every large project successfully completed is very satisfying and if you like a moment to those involved. • The endless variety, as no two materials, no two sites, no two people and no two projects are alike. 	<ul style="list-style-type: none"> • Your developing relies on training and attending courses. You can become a Snr. Materials Tester • You must be committed and prepared learn • Try to visit a large Civil engineering construction laboratory and be sure to talk to one of the more senior and experienced technicians who can tell you all about what the career of a laboratory technician offers. • It is so much more than just sitting in a laboratory day in and day out, it can be a wonderful and challenging career.
	WORKING ENVIRONMENT
<p>The work is done in a laboratory environment as well as site visits to collect samples and site meetings.</p> <p>The hours are normally office hours, but over time can be work to meet deadlines or in special cases when testing results are required.</p>	

EDUCATION AND TRAINING	LENGTH OF STUDY
<p>Learnerships are available at NQF Level 2, 3 and 4 in Material Testing. The training is conducted by CETA accredited providers, alternatively a Diploma in Material testing can be done through a University of Technology. Diploma in Civil Engineering can also be followed with material testing as one of the streams. This qualification can lead to a B-Tech and M-Tech.</p>	<p>The Learnerships can be between 15 to 18 months plus at least 2 years practical work in the laboratory.</p> <p>The Diploma will be a minimum of three years at the University of Technology.</p> <p>Material testers may also register with Engineering Council of South Africa (ECSA) as Technicians and technologists once they comply with the criteria specified by ECSA.</p>