



### JOB DESCRIPTION

Position Information	
Job Title:	Laboratory Scientist
Job Grade:	Grade 2
Patterson Grading:	C4
Structural Information	
Division:	Scientific Services
Section:	Scientific Services (Chemistry and Microbiology)
Reports to:	Control Scientist
Hierarchical position of Job (Only Job Titles are used)	
Supervisor (Second Reporting Level):	Manager: Scientific Services
Supervisor (First Reporting Level):	Control Scientist
Incumbent:	Laboratory Scientist Grade 2
Subordinates (First level):	None
Subordinates (Second Level):	None
Number of direct reports (own staff):	
Minimum Person Requirements	
Minimum qualifications required:	BSc Chemistry/Microbiology or National Diploma /B-Tech in Analytical Chemistry/Microbiology/Biotechnology
Minimum operational experience required:	<p>For NDip –6 years' experience of which 3 years are in an ISO 17025 accredited laboratory with demonstrated competency of 100% in section specific methods and at least 60% competency in Level 1 and /or Level 2 analyses is required.</p> <p>For BSc/BTech – 5 years' experience of which 3 years are in an ISO 17025 accredited laboratory with demonstrated competency of 100% in section specific methods. Demonstrated competence in at least 60% of Level 1 and/ or Level 2 analyses is required.</p>
Preferable experience:	
Managerial experience required:	1 year in a supervisory role
Physical requirements:	Be able to stand for long hours and be physically fit.

Core Competencies		
Knowledge	Skills	Attitudes
Industry and Product knowledge:	Client Orientation and Customer Focus	Assertive
Analysis/instrumentation levels may include any other applicable and relevant analysis/instrumentation not mentioned in the job description.	Problem Solving and Analysis	Customer satisfaction focus
Data and Statistical evaluation:	Time management / organising skills	General energetic and enthusiastic
ISO 17025	Interpretation of results	Time management / organising
Basic knowledge regarding Legislation – SANS 241, Metro By-Laws, National and provincial, waste water effluent standards:	Time management / organising skills	Professional
Relevant SANAS documentation:	Report writing skills	Responsible
Basic Financial Management:	Attention to detail	Punctual
LIMS(Intermediate):	Computer skills	Honest and reliable

Basic IT:	Service Delivery Innovation	Helpful
Scientific Services Management System:	Adherence to requirements and procedures	Amiable
Basic principles and analytical methodology Microbiology, Chemistry, Sludge:	Ability to work with different personalities – Interpersonal “people skills”	Dedicated
	Ability to work under pressure	View problems as challenges
	Knowledge Management	Willing to learn
	People Management and empowerment	Positive
<p><b>Chemistry Level 1:</b> pH, conductivity, total suspended solids, total dissolved solids, settleable solids, alkalinity, colour, surfactants, dissolved oxygen, turbidity, sulphides, balances, verification of glassware and thermometers and any other applicable method/task. COD, chlorine, fluoride, phenol, hexavalent chromium, TOC and discrete analyser, Oil &amp; Grease, sludge classification, Microwave Digestion (analysis/instrumentation “levels” may include any other related, relevant and applicable analysis/instrumentation not mentioned above for all sections).</p> <p><b>Chemistry Level 2:</b> ICP, GC-MS, FIA</p> <p><b>Microbiology Level 1:</b> Heterotrophic plate count, total coliforms, faecal coliforms, faecal <i>Streptococcus</i>, <i>E. coli</i>, Colilert, <i>Pseudomonas</i>, <i>Clostridium</i>, SRB, Yeast and moulds, swabs, anaerobic plate count, BOD, media preparation, balances and pH meter calibration. Helminth ova, filament species identification, sludge classification, toxicity, faecal coliforms in sludge.</p> <p><b>Microbiology Level 2:</b> PCR</p>		

### Special Requirements

Basic Knowledge of legislation that is applicable in the water sector

### Job Content


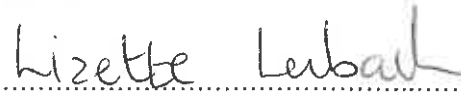
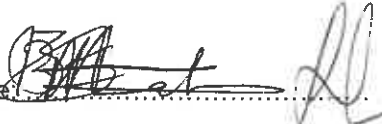
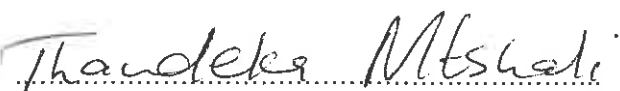

**Core description:** To analyse samples through compliance to prescribed procedures, recording all sample results and verification checks done as per in house Management System documentation based on ISO 17025 requirements

Key Responsibilities / Deliverables	Functions include but are not limited to the following
<b>Analysis and related tasks:</b>	<ul style="list-style-type: none"> <li>• Identify relevant samples and determinants for analysis according to sample programmes or request forms/contracts,</li> <li>• Prepare samples and instrumentation in accordance to prescribed methods and SOP's and/or requested analyses,</li> <li>• Analyse samples in accordance to prescribed methods,</li> <li>• Have in depth knowledge of various level 1 and 2 analytical instruments/analysis,</li> <li>• Analysing and interpretation of quality control/proficiency samples as per Management system procedures,</li> <li>• Investigations when required,</li> <li>• Ensure sufficient consumables/chemicals/resources and/or the request thereof timeously to ensure ongoing tasks/analysis on own bench and tasks (glassware, thermometers etc.),</li> <li>• Monitoring and verification of information/data and identification of errors/non-conforming work,</li> <li>• Able to troubleshoot and solve problems for level 1 and 2 analysis/tasks,</li> <li>• Identify nonconforming work/results, of own bench, sub ordinate and assist with other benches on same level as well as sub-ordinate benches and rectify it in an appropriate manner and as per relevant procedure/s own bench and tasks,</li> <li>• Maintaining of a suitable working environment as per requirement including equipment, environmental conditions etc. for responsible analysis/tasks,</li> <li>• Assist with training and supporting subordinates with advice, troubleshooting and more advanced technical knowledge,</li> <li>• Assist with the supervision of subordinates,</li> <li>• Prioritise work flow,</li> <li>• Decision making and use of your discretion when working with a difficult sample,</li> <li>• Mitigate instrument failure,</li> <li>• Troubleshoot and solve problems regarding analysis/tasks and where relevant sub-ordinates,</li> <li>• Assist (sub ordinates and same level benches with the analysis of specialised samples which might need specialised preparation,</li> <li>• Assist with the reviewing of the Quality Management System documentation,</li> <li>• Calibrate &amp; maintain all instruments in accordance with approved schedules and procedures,</li> <li>• Verify glassware and thermometers,</li> <li>• Ensure sufficient consumables/chemicals/resources and/or the request thereof timeously to ensure ongoing tasks/analysis for own bench and tasks,</li> <li>• Ensure instrument reliability, availability of spares, servicing arrangements,</li> <li>• Validation of old &amp; new methods and instruments according to procedures,</li> <li>• Execute root cause analysis for non-conforming work and implementation of proposed corrective actions,</li> <li>• Cleaning of Instrumentation &amp; maintaining of a clean and neat work bench/environment,</li> <li>• Planning and organising of analysis of own bench and sub ordinates and other responsibilities to ensure adherence to required turnaround time/s and requirements/specifications.</li> <li>• Monthly checklist</li> </ul>
<b>Financial Management:</b>	<ul style="list-style-type: none"> <li>• Provide input for the section's yearly budget</li> <li>• Ensure that procurement is done according to ERWAT and scientific services policies and procedures.</li> </ul>

<b>Knowledge Transfer</b>	<ul style="list-style-type: none"> <li>• Ensure sufficient and appropriate knowledge transfer where required and where relevant as per procedures</li> <li>• Assist with the identification of training needs</li> </ul>
<b>Technical Management</b>	<p><u>Methods-</u></p> <ul style="list-style-type: none"> <li>• Identify methods that should be developed and modified and ensure correct procedures are followed and requirements and specifications are adhered to,</li> <li>• Assist with the development and/or modification of methods through the analyzing of samples by doing analyses as per the correct procedures and requirements,</li> <li>• Validate and/or verify the "fit for intended use" of current and/or new methods through the analyzing of samples according to procedures, specifications and requirements,</li> <li>• Implement procedures, and requirements,</li> <li>• Reviewing of documents and or assist with the reviewing of methods when required and as per pre-defined schedule/s and apply for changes where needed. Apply/implement approved changes,</li> <li>• Carry out or assist with investigations where required to ensure problems are solved and implement proposed and approved changes.</li> </ul>
<b>Technical Signatory</b>	<ul style="list-style-type: none"> <li>• Ensure that all results are reviewed and corrected where relevant and before authorisation,</li> <li>• Authorise the inclusion of statements of conformity and opinions and interpretations to reports, where required, as per the relevant procedure/s (only by authorised staff – Technical Signatories),</li> <li>• Authorise, verify and review relevant results as per requirements and procedures.</li> <li>• Accepts responsibility for the inclusion and releasing of statements of conformity and/or interpretation and opinions on customer result reports and ensure that it is done as per relevant procedure/s,</li> <li>• Accepts responsibility for the contents (i.e. results) of the report which he/she is authorizing by ensuring that all necessary checks were done, were followed, requirements and specifications were adhered to (as per the management system) and that the results make sense,</li> <li>• Responsible for interpretation and opinions of customer results and ensures that relevant SANAS documents are followed.</li> <li>• Ensure that analyses are done as per procedures and all relevant specifications and requirements are adhered to.</li> </ul>
<b>People Management:</b>	<ul style="list-style-type: none"> <li>• Organising of staff effectiveness when people are attending courses and delegate duties to other</li> <li>• Assist with the monitoring of the performance of sub-ordinates to ensure a high level of efficiency within the Scientific Services</li> <li>• Monitoring of weekend/public holidays overtime including processing hours worked.</li> </ul>
<b>People empowerment:</b>	<ul style="list-style-type: none"> <li>• Identify training needs for oneself and of the section.</li> <li>• Assist/Organise relevant internal and external training where required to ensure ongoing functioning of section</li> <li>• Assist with sufficient and appropriate knowledge transfer (technical, quality related and relevant other) where required (internal staff and externally – customers) as per procedures</li> </ul>
<b>Administration:</b>	<ul style="list-style-type: none"> <li>• Assist with the reviewing of relevant standard operating procedures and management system documentation as per schedules and where needed on an ad hoc basis,</li> <li>• Assist with the filing and maintenance of records in the Scientific Services,</li> <li>• Assist with compiling of departmental and ad-hoc reports according to departmental procedures and requirements.</li> <li>• Logging of samples into the LIMS system</li> <li>• Verify samples against the chain of custody forms.</li> <li>• Ensure that analytical reports are send to customers within the specified</li> </ul>

	turnaround times.
<b>General:</b>	<ul style="list-style-type: none"> <li>• Monitor consumables utilization and re-order from external suppliers according to departmental procedure,</li> <li>• Identify shortcomings in section (and elsewhere) and rectify and/or assist to rectify it,</li> <li>• Attend meetings and training,</li> <li>• Stand in for staff, where applicable, on a high level, same level or lower level when needed</li> </ul>
<b>Health and Safety:</b>	<ul style="list-style-type: none"> <li>• Participate in health and safety related activities where required;</li> <li>• Ensure work areas are clean and safe after analysis to eliminate any risks for cleaners,</li> <li>• Ensure adherence to ERWAT and ERWAT Scientific Services safety procedures and policies and the OHS ACT (Occupation Health and Safety Act),</li> <li>• Assist with the identification and mitigation of health and safety related risks.</li> </ul>

*This job description may not necessarily reflect all the tasks performed by the incumbent, who may be required to assist with similar duties.*

<b>Authorised by:</b>	<b>Executive Manager: Scientific Services</b>
	Name and Surname: Alison Chapman
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	<b>Manager: Laboratory Services</b>
	Name and Surname: Lizette Lebad 
Signature:  Date: .....	
<b>Control Scientist</b>	
Name and Surname: Thandeka Mtshali 	
Signature:  Date: .....	
<b>Laboratory Scientist (Grade 2)</b>	
Name and Surname: .....	
Signature : ..... Date : .....	

