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**Office Location**

Mmamashia Water Treatment Works  
Off Gaborone-Francistown Road  
1,8 km opposite Oodi Turn off  
Mmamashia,  
Botswana

**Address**

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19<sup>th</sup> August 2016

**TO WHOM IT MAY CONCERN**

This is to certify that Miss Lindiwe Jean Nkomeng Modise was attached at Water Utilities Corporation (WUC), Botswana, for a period of 6 weeks from 13<sup>th</sup> July 2016 – 19<sup>th</sup> August 2016.

The WUC attachment program enables senior undergraduates and postgraduates to receive the unique opportunity to gain an understanding of how the water treatment plants work in Botswana, gain practical experience, develop a range of essential skills and at the same time provide assistance and workload relief to the WUC within a designated department. During her stay with WUC, Miss Modise was given a tour around the Mmamashia Potable Water Treatment Plant and the Glen Valley Wastewater Treatment Plant. She was later able to distinguish the different processes between the two treatment plants.

Miss Modise made weekly rotations from the Quality Control, Microbiology, Chemistry Units in both potable and wastewater laboratories. In the Quality Control Unit, which oversees process control, she covered sample collection, transportation and preservation, the determination of their free and total chlorine, pH, conductivity, total dissolved solids and turbidity, as well as the jar test, which determines the effectiveness of chemical coagulation of water. In the Microbiology Laboratories, she learnt about the handling of test items, preparation of culture media, determination of total coliforms and *E. coli*, Faecal Coliforms, Faecal Streptococci and *Clostridium perfringens* by use of membrane filtration and heterotrophic plate count. In the Chemistry Laboratories Miss Modise was trained how to determine alkalinity, total hardness, calcium hardness and pH by T70 Autotitrator; simultaneous determination of anions and cations by Ion Chromatography- ICS 3000 along with the preparation of its standards; determination of metals by ICP\_OES; gravimetric determination of total suspended solids; measurement of Biological Oxygen Demand (BOD) using the Oxitope Manometric System and determination of Chemical Oxygen Demand (COD) using Macherey-Nagel test kits.

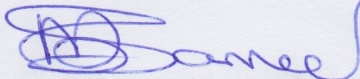
Miss Modise attended two Laboratory Quality Management Systems (LQMS) forums discussing, Root Cause Analysis, Internal Audits and Management Reviews, as topics from ISO/IEC 17025 Standard. She also participated in the Mmamashia WUC team building event, leading the proceedings during the "Court of Injustice" which was meant to raise funds for the Health and Wellness Committee.



Throughout her time at WUC, Miss Modise was a valuable asset, contributing her excellent interpersonal and communication skills, ability to work independently, initiative and dedication to assist in achieving the Corporation mandate. We wish Miss Modise the very best in all her future endeavors and believe that she will be an integral and valued member of any future workplace.

I therefore do not have any hesitation recommending her to your organization for further development.

Sincerely



Moagi C. Letsamao

**PRINCIPAL QUALITY ASSURANCE OFFICER**