

Water, Sewage & Industrial Effluent Testing Laboratory

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The Director: Technical Services
Ilembe District Municipality
P.O. Box 1788
KwaDukuza
4450
Attention: Mr. H.N. Maphumulo

E-mail: Group 3 Details

Dear Sir,

**TUGELA RAIL WATER PURIFICATION WORKS:
ANALYTICAL REPORT FOR APRIL 2014**

Four routine inspection visits at Tugela Rail water purification works was conducted on 01st, 07th, 16th, 23rd and 29th of April 2014 when samples were collected for analysis in accordance with the yearly visit schedule. Our report is submitted hereunder and results of analysis of the samples are appended on the attached Certificate of Analysis.

1. TREATED WATER - CHEMICAL QUALITY

The physical and chemical quality of the final treated water was satisfactory when all parameters complied to the requirements except for the colour, iron, aluminium and turbidity concentrations.

2. BACTERIOLOGICAL QUALITY AND DISINFECTION

Bacteriological quality of the treated water was good for all four weeks and complied with the SANS 241- specifications in all respects. Disinfection was being practiced using chlorine gas and the free and total chlorine residuals monitored for the review period were deemed adequate and must be maintained in this manner. The heterotrophic plate count improved this month and complied for the review period.

3. RECOMMENDATIONS AND OBSERVATION

The filters are backwashed three times a day as specified by the operator and appears to be non- effective therefore we recommend that the frequency be increased. Daily on-site tests must be performed to monitor and maintain the turbidity concentration. General housekeeping was neat.

Yours faithfully

B N KIRK (NATAL) CC



**V. DHEVNANAN
PROCESS TECHNICIAN**