



Guyana Water Inc. Summary Table for Treatment Plant Compliance with WHO Parameters

Document Identifier: GWI-REC-Sumtab/2018/02

Date of Issue: February 2018

Lab Address: 255 Da Silva St., Newtown Kitty, Georgetown

Approved by: Water Qual. Dept.

February 2018

Treatment Plant Compliance with WHO parameters

Treatment plants	Parameters								
	Regions	pH	Turbidity (NTU)	Iron (mg/l)	Aluminium (mg/l)	Apparent Colour (Hazens) - clarity	Chlorine residual (mg/l)	Tot. Coliform (colonies /100ml)	E. Coli (colonies /100ml)
WHO guidelines		6.5-8.5	<5	< 0.3	<0.2	-	0.2-0.5	Low counts (e.g 0 - 60)	0
Bartica	7 Bartica	4.08	1.37	0.05	1.60	22	0.60	0	0
Lima	2 Esseq	7.32	3.95	0.27	NA	36	0.82	1	0
Fellowship	3 WCD	6.93	2.08	0.24	NA	25	0.55	0	0
Pouderoyen	3 WCD	6.77	1.21	0.12	NA	20	0.08	2	0
Vergenoegen	3 WCD	7.51	3.10	0.61	NA	78	0.02	2	0
Covent Garden	4 EBD	6.31	22.47	1.84	NA	169	-	fluctuating	fluctuating
Eccles	4 EBD	6.40	22.53	1.97	NA	132	-	0	0
Grove	4 EBD	6.49	5.33	0.85	NA	44	-	fluctuating	fluctuating
Better Hope	4 ECD	8.30	0.84	0.03	NA	25	0.20	20	0
Friendship	4 ECD	6.46	24.90	1.41	NA	181	0.00	14	0
Mon Repos	4 ECD	8.39	0.81	0.04	NA	24	0.20	2	0
Central	4 GT	7.55	2.20	0.64	NA	40	0.00	16	0
Shelter Belt	4 GT	5.14	4.55	0.15	0.97	59	3.00	8	0
Sophia	4 GT	7.73	1.70	0.49	NA	28	0.00	1	0
Amelia's Ward	10 Lin	5.35	2.99	0.76	NA	53	0.25	25	0
LPC	10 Lin	4.37	10.40	0.31	1.46	122	-	0	0
McKenzie	10 Lin	4.40	5.50	0.28	1.38	65	1.01	1	0
West Watooka	10 Lin	4.58	4.33	0.12	0.94	69	0.20	1	0
Wisroc	10 Lin	4.50	3.56	0.58	0.31	45	0.25	fluctuating	fluctuating
Cotton Tree	5 WCB	6.63	1.66	0.07	NA	21	0.25	1	0
New Amsterdam*	6 Berbice	6.43	-	<0.02	NA	-	0.4	1	0
Port Mourant	6 Berbice	6.82	1.81	0.08	NA	23	-	6	0
Queenstown	6 Berbice	6.89	1.12	0.19	NA	20	0.40	TNTC	0
No. 56	6 Berbice	6.82	0.68	0.04	NA	11	1.80	0	0



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Notes (February 2018):

- 10 out of the 24 plants (i.e. 41.6%) are fully compliant with the WHO drinking water guidelines listed above. These plants are: Lima, Fellowship, Pouderoyne, Better Hope, Mon Repos, Cotton Tree, New Amsterdam, Port Mourant, Queenstown and No.56.
- The remaining 14 out of 24 plants (i.e. 58.4%) are experiencing issues with respect to meeting all of the parameters, especially iron.
- All surface water plants are non-compliant with pH and Aluminium: pH optimization is needed, which also affects the Aluminium concentration.
- 10 plants (38%) are non-compliant with iron. A common issue consequent to the iron problems is the high turbidity in the final waters. These plants include: Vergenoegen, Covent Garden, Eccles, Grove, Friendship, Central, Sophia, Amelia's Ward, LPC and Wisroc. The Iron removal processes need to be optimized. Friendship requires iron removal processes.
- It is unusual for Wisroc to have high iron values and as such needs to be monitored. Likewise, the disinfection process is being investigated (discussions are ongoing with Region 10's management) as the microbial quality has been fluctuating during this month.
- All of the east bank plants are failing in iron removal and also Covent Garden and Grove has significant disinfection issues. A visit was made to the plants and works are being undertaken to remedy this problem urgently.
- Three (3) plants did not submit any chlorine reading even when reminded to do so while taking samples. These are Eccles, Covent Garden and Grove.
- Three (3) plants recorded zero chlorine residuals consistently: Friendship, central and Sophia. Friendship will require iron removal process before chlorination can be considered due to the high iron values. However, the disinfection system at both Central and Sophia require urgent optimization.
- Three (3) plants have fluctuating microbial quality for this month. These plants include: Covent Garden, Grove and Wisroc. This is being addressed with urgency both by the water quality department and the respective regional management.
- Sophia recorded average iron values just above the threshold values, which is still unacceptable, however, as of March 8th, the values have returned to normalcy making the plant now compliant with the WHO requirements. This was discussed with Georgetown management and discussions are currently underway with operators and supervisors to guard against negligence.