



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

Document Identifier: GWI-REC-Sumtab/2018/05

Date of Issue: May 2018

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

Approved by: Water Qual. Dept.

May 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	4.94	16.05	0.39	2.13	166	0.30	9	0
Lima	2 Esseq	7.40	3.82	0.29	NA	24	-	102	0
Fellowship	3 WCD	6.94	1.16	0.12	NA	9	-	10	0
Pouderoyen	3 WCD	6.91	0.72	0.11	NA	4	0.00	1	0
Vergenoegen	3 WCD	7.35	5.12	0.63	NA	44	-	32	0
Covent Garden	4 EBD	6.18	1.14	2.24	NA	24	-	0	0
Eccles	4 EBD	6.34	16.55	1.84	NA	140	-	6	0
Grove	4 EBD	6.56	5.44	0.70	NA	50	-	21	Fluctuating
Better Hope	4 ECD	8.31	0.35	0.02	NA	21	0.20	19	0
Friendship	4 ECD	6.53	27.75	1.44	NA	195	-	24	Fluctuating
Mon Repos	4 ECD	8.40	0.38	0.03	NA	24	0.20	2	0
Central	4 GT	7.24	1.07	0.96	NA	26	0.00	7	0
Shelter Belt	4 GT	5.49	7.70	0.60	0.90	79	0.76	2	0
Sophia	4 GT	7.94	0.74	0.31	NA	13	0.00	1	0
Amelia's Ward	10 Lin	5.39	3.16	0.73	NA	31	0.22	12	0
LPC	10 Lin	4.61	6.73	0.26	3.29	84	1.02	0	0
McKenzie	10 Lin	5.20	2.38	0.15	1.82	39	0.50	12	Fluctuating
West Watooka	10 Lin	4.58	2.26	0.13	2.42	34	0.32	16	0
Wisroc	10 Lin	4.59	2.10	0.26	1.10	19	0.22	1	0
Cotton Tree	5 WCB	6.62	1.20	0.37	NA	22	0.31	19	0
New Amsterdam*	6 Berbice	6.34	0.76	0.02	NA	8	0.18	44	0
Port Mourant*	6 Berbice	6.72	0.90	0.02	NA	25	0.45	0	0
Queenstown*	6 Berbice	6.92	2.93	0.55	NA	32	0.00	55	0
No. 56*	6 Berbice	6.39	3.10	0.21	NA	31	0.00	9	0



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Notes (May 2018):

- 7 out of the 24 plants (i.e. 29%) are fully compliant with the WHO drinking water guidelines listed above. These plants are: Better Hope, Pouderoyen, Fellowship, Mon Repos, Sophia, Queenstown and Port Mourant. It must be noted that The New Amsterdam and #56 Plants were effective in terms of iron removal but the pH values were just a shade under the recommended 6.5
- Of the 17 plants (71 %) that are experiencing issues with respect to meeting all of the parameters, especially iron, 10 plants (41.7%) are non-compliant with iron. They are (Bartica, Vergenoegen, Covent Garden, Eccles, Grove, Friendship, Central Ruimveldt, Shelterbelt, Amelia's Ward and Cotton Tree). The Iron removal processes need to be optimized. Friendship is not considered a treatment plant but is in the list because of the infrastructural works.
- All surface water plants (Bartica, Shelterbelt, L.P.C, Mckenzie, West Watooka and Wisroc) are non-compliant with pH and Aluminium. Alum and lime dosing are to be optimized to simultaneously increase pH and lower aluminum in the final water.
- Six (6) operational plants did not submit any chlorine reading. These are Lima, Eccles, Covent Garden and Grove, Friendship, Fellowship and Vergenoegen. Despite this however, the microbial quality is good.
- Five (5) plants recorded zero chlorine residuals consistently for the Month of May: Pouderoyen, Sophia, Central Ruimveldt, Queenstown and No.56. Despite the low reading, the microbial quality was very good.
- Three (3) plants had fluctuating microbial quality for this month. These plants include, Vergenoegen, Friendship and Mckenzie. However, the fluctuating values are being addressed with urgency both by the Water Quality Department and the respective regional management. Samples for Vergenoegen and Friendship were done at the end of May and it yielded NO E. coli nor high total coliforms.
- Samples from New Amsterdam, Queenstown, No.56 and Port Mourant treatment plants were submitted to the Central Laboratory where analyses were done. The results obtained at the Central Laboratory were merged with the results from the Berbice mini Laboratory.
- Amsterdam, Sharma, Noitgedacht and Eversham pump stations have presented contamination and are being addressed. The respective managers of Regions 3 and 6 along with the Director of Operations have been informed. Well inspections have been recommended to further evaluate the situation.