



Microbiology Test Report

Customer Details

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.

Report No. WA-R-L-2103-37434



Request No. : WA-Q-L-2103-05283 Received Date : 04/03/2021 Sample No. : WA-S-L-2103-36961

Sampling Date	: 04/03/2021	Report Date.	: 08/03/2021
Analysis Start Date.	: 04/03/2021	Analysis End Date.	: 07/03/2021
Sample Location.	: Zayed University	Sampled By	: Client
Sample Identification	: Not Given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: Not Applicable
Temperature °C	: Not Given	Site Observation	: Not Given
Sampling Container	: Plastic Bottle	Source of Sample	: New Reception near FR1 Building
Sampling Point	: Female Washroom Cold Water Outlets	Preservation	: Not Applicable
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	--
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	Zero
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml

Note : Not Detected=<1CFU

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested results of the sample are found to be satisfactory within the specified limits.

Analyst	Reviewed By	Method Variation
SN	SM	None

Key Words :CFU-Colony Forming Unit; APHA-American Public Health Association; CCFRA-Campden Chorleywood Food Research Association.

Signed for and on behalf of Wimpey Laboratories

Dr. Suresh Murugan Ph.D
Head of Microbiology Department



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Form No: WARF-MB-01 Issue No.:01 Rev No:00 Issued Date:22-01-2020

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Microbiology Test Report

Customer Details

Report No. WA-R-L-2103-37433

Crystalline Cleaning & Environmental Services

P.O.Box: 131463 Warehouse no: 84, M-45. Mussafah, Abu Dhabi, UAE.



Request No. : WA-Q-L-2103-05283 Received Date : 04/03/2021 Sample No. : WA-S-L-2103-36960

Sampling Date	: 04/03/2021	Report Date.	: 08/03/2021
Analysis Start Date.	: 04/03/2021	Analysis End Date.	: 07/03/2021
Sample Location.	: Zayed University	Sampled By	: Client
Sample Identification	: Not Given	Sample Submitted as	: Water
Sample Certificate No	: Not Given	Sampling Method	: Not Applicable
Temperature °C	: Not Given	Site Observation	: Not Given
Sampling Container	: Plastic Bottle	Source of Sample	: New Reception near FR1 Building
Sampling Point	: Male Washroom Cold Water Outlet	Preservation	: Not Applicable
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	--
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml
Pseudomonas aeruginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	Zero
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	Zero/100ml

Note : Not Detected=<1CFU

Limits based on Water Quality Regulations 2021. Document no. DoE/PD/R01/003. Table F – Microbiological Parameters.

Remarks :The tested results of the sample are found to be satisfactory within the specified limits.

Analyst	Reviewed By	Method Variation
SN	SM	None

Key Words :CFU-Colony Forming Unit; APHA-American Public Health Association; CCFRA-Campden Chorleywood Food Research Association.

Signed for and on behalf of Wimpey Laboratories

Dr. Suresh Murugan Ph.D
Head of Microbiology Department



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Form No: WARF-MB-01 Issue No.:01 Rev No:00 Issued Date:22-01-2020

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CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING SERVICE REPORT

CUSTOMER: SERCO FACILITY MANAGEMENT.

Site:	Zayed University, Abu Dhabi	Date:	04-03-2021
Sample Point:	New Reception Near Fr1 Building - Pantry - Hot Water Outlet	Sampled By:	Crystalline Rep

POTABLE WATER ANALYSIS

Parameter	Control Limits	Result
pH at 25°C	7.0 - 9.2	8.15
Conductivity at 25°C, $\mu\text{s}/\text{cm}$	---	216
Total Dissolved Solids (TDS)	1000 Max.	143
Total Hardness, ppm as CaCO_3	300 Max.	59
Calcium Hardness, ppm as	200 Max.	47
Chlorides (Cl^-), mg/l	250 Max.	46
Sulphate (SO_4), mg/l	250 Max.	<10
Copper (Cu), mg/l	1 Max.	<0.05
Aluminum (Al), mg/l	0.2 Max.	<0.05
Zinc (Zn), mg/l	5 Max.	<0.05
Nitrate ($\text{NO}_3\text{-N}$) mg/l	50 Max.	<1.0
Nitrite ($\text{NO}_2\text{-}$) mg/l	3.0 Max.	<0.1
Fluorides (F)	1.5 Max.	<0.05
Potassium (K)	12 Max.	<5.0

Treatment Residuals

Odor	Unobjectionable	ND
Turbidity in NTU	4.0 Max.	<1

All test results expressed in parts per million (ppm) as CaCO_3 except pH and conductivity (μmhos)

COMMENTS:	ACTION:
The pH and Conductivity/TDS are found satisfactory. \Rightarrow	No action recommended.

INVENTORY LEVELS			DOSAGE SCHEDULE	
Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
			--	
Service Engineer:	Murugaraaj	Client:	Mr. Muhammed Afsal Otta Thayyil	
Signature:		Signature:		



CLEANER WATER GREENER TOMORROW



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING SERVICE REPORT

CUSTOMER: SERCO FACILITY MANAGEMENT.

Site:	Zayed University, Abu Dhabi	Date:	04-03-2021
Sample Point:	New Reception Near Fr1 Building - Pantry - Cold Water Outlet	Sampled By:	Crystalline Rep

POTABLE WATER ANALYSIS

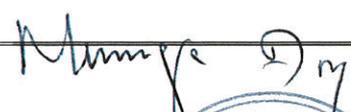
Parameter	Control Limits	Result
pH at 25°C	7.0 - 9.2	8.17
Conductivity at 25°C, $\mu\text{s}/\text{cm}$	---	198
Total Dissolved Solids (TDS)	1000 Max.	127
Total Hardness, ppm as CaCO_3	300 Max.	61
Calcium Hardness, ppm as	200 Max.	52
Chlorides (Cl^-), mg/l	250 Max.	41
Sulphate (SO_4), mg/l	250 Max.	<10
Copper (Cu), mg/l	1 Max.	<0.05
Aluminum (Al), mg/l	0.2 Max.	<0.05
Zinc (Zn), mg/l	5 Max.	<0.05
Nitrate ($\text{NO}_3\text{-N}$) mg/l	50 Max.	<1.0
Nitrite ($\text{NO}_2\text{-}$) mg/l	3.0 Max.	<0.1
Fluorides (F)	1.5 Max.	<0.05
Potassium (K)	12 Max.	<5.0

Treatment Residuals

Odor	Unobjectionable	ND
Turbidity in NTU	4.0 Max.	<1

All test results expressed in parts per million (ppm) as CaCO_3 except pH and conductivity (μmhos)

COMMENTS:	ACTION:
The pH and Conductivity/TDS are found satisfactory. \Rightarrow	No action recommended.

INVENTORY LEVELS			DOSAGE SCHEDULE	
Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
			--	
Service Engineer:	Murugaraaj	Client:	Mr. Muhammed Afsal Otta Thayyil	
Signature:		Signature:		



CLEANER WATER GREENER TOMORROW



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING SERVICE REPORT

CUSTOMER: SERCO FACILITY MANAGEMENT.

Site:	Zayed University, Abu Dhabi	Date:	04-03-2021
Sample Point:	New Reception Near Fr1 Building - Male Washroom Hot Water Outlet	Sampled By:	Crystalline Rep

POTABLE WATER ANALYSIS

Parameter	Control Limits	Result
pH at 25°C	7.0 - 9.2	8.20
Conductivity at 25°C, $\mu\text{s}/\text{cm}$	---	208
Total Dissolved Solids (TDS)	1000 Max.	135
Total Hardness, ppm as CaCO_3	300 Max.	59
Calcium Hardness, ppm as	200 Max.	54
Chlorides (Cl^-), mg/l	250 Max.	38
Sulphate (SO_4), mg/l	250 Max.	<10
Copper (Cu), mg/l	1 Max.	<0.05
Aluminum (Al), mg/l	0.2 Max.	<0.05
Zinc (Zn), mg/l	5 Max.	<0.05
Nitrate ($\text{NO}_3\text{-N}$) mg/l	50 Max.	<1.0
Nitrite ($\text{NO}_2\text{-}$) mg/l	3.0 Max.	<0.1
Fluorides (F)	1.5 Max.	<0.05
Potassium (K)	12 Max.	<5.0

Treatment Residuals

Odor	Unobjectionable	ND
Turbidity in NTU	4.0 Max.	<1

All test results expressed in parts per million (ppm) as CaCO_3 except pH and conductivity (μmhos)

COMMENTS:

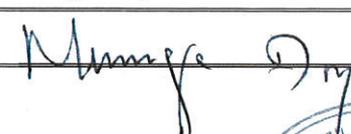
The pH and Conductivity/TDS are found satisfactory. \Rightarrow

ACTION:

No action recommended.

INVENTORY LEVELS

DOSAGE SCHEDULE

Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
			--	
Service Engineer:	Murugaraaj	Client:	Mr. Muhammed Afsal Otta Thayyil	
Signature:		Signature:		



CLEANER WATER GREENER TOMORROW



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING SERVICE REPORT

CUSTOMER: SERCO FACILITY MANAGEMENT.

Site:	Zayed University, Abu Dhabi	Date:	04-03-2021
Sample Point:	New Reception Near Fr1 Building - Male Washroom Cold Water Outlet	Sampled By:	Crystalline Rep

POTABLE WATER ANALYSIS

Parameter	Control Limits	Result
pH at 25°C	7.0 - 9.2	8.16
Conductivity at 25°C, $\mu\text{s}/\text{cm}$	---	227
Total Dissolved Solids (TDS)	1000 Max.	147
Total Hardness, ppm as CaCO_3	300 Max.	63
Calcium Hardness, ppm as	200 Max.	56
Chlorides (Cl^-), mg/l	250 Max.	47
Sulphate (SO_4), mg/l	250 Max.	<10
Copper (Cu), mg/l	1 Max.	<0.05
Aluminum (Al), mg/l	0.2 Max.	<0.05
Zinc (Zn), mg/l	5 Max.	<0.05
Nitrate ($\text{NO}_3\text{-N}$) mg/l	50 Max.	<1.0
Nitrite (NO_2^-) mg/l	3.0 Max.	<0.1
Fluorides (F)	1.5 Max.	<0.05
Potassium (K)	12 Max.	<5.0

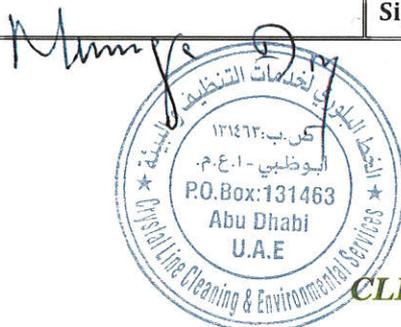
Treatment Residuals

Odor	Unobjectionable	ND
Turbidity in NTU	4.0 Max.	<1

All test results expressed in parts per million (ppm) as CaCO_3 except pH and conductivity (μmhos)

COMMENTS:	ACTION:
The pH and Conductivity/TDS are found satisfactory. \Rightarrow	No action recommended.

INVENTORY LEVELS			DOSAGE SCHEDULE	
Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
			--	
Service Engineer:	Murugaraaj	Client:	Mr. Muhammed Afsal Otta Thayyil	
Signature:		Signature:		



CLEANER WATER GREENER TOMORROW



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING SERVICE REPORT

CUSTOMER: SERCO FACILITY MANAGEMENT.

Site:	Zayed University, Abu Dhabi	Date:	04-03-2021
Sample Point:	New Reception Near Fr1 Building - Female Wash Room Cold Water Outlets	Sampled By:	Crystalline Rep

POTABLE WATER ANALYSIS

Parameter	Control Limits	Result
pH at 25°C	7.0 - 9.2	8.12
Conductivity at 25°C, $\mu\text{s}/\text{cm}$	---	219
Total Dissolved Solids (TDS)	1000 Max.	143
Total Hardness, ppm as CaCO_3	300 Max.	59
Calcium Hardness, ppm as	200 Max.	47
Chlorides (Cl^-), mg/l	250 Max.	38
Sulphate (SO_4), mg/l	250 Max.	<10
Copper (Cu), mg/l	1 Max.	<0.05
Aluminum (Al), mg/l	0.2 Max.	<0.05
Zinc (Zn), mg/l	5 Max.	<0.05
Nitrate ($\text{NO}_3\text{-N}$) mg/l	50 Max.	<1.0
Nitrite ($\text{NO}_2\text{-}$) mg/l	3.0 Max.	<0.1
Fluorides (F)	1.5 Max.	<0.05
Potassium (K)	12 Max.	<5.0

Treatment Residuals

Odor	Unobjectionable	ND
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COMMENTS:	ACTION:
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Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
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Service Engineer:	Murugaraaj	Client:	Mr. Muhammed Afsal Otta Thayyil	
Signature:		Signature:		



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