



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-2007-14528



Request No. : WA-Q-L-2007-02154

Sample No. : WA-S-L-2007-14043

Sampling Date	: 15/07/2020	Report Date.	: 19/07/2020
Analysis Start Date.	: 15/07/2020	Analysis End Date.	: 18/07/2020
Sample Location.	: Serco Accommodation	Sampled By	: Client Representative
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: Not Applicable	Sampling Method	: Not Applicable
Temperature °C	: Not Applicable	Site Observation	: Not Applicable
Sampling Container	: Plastic Bottle	Source of Sample	: Main Tank
Sampling Point	: Basement	Preservation	: Not Applicable
Sample Description	: Water		

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

Note : Not Detected=<1CFU

Limits based on RSB Water Quality Regulation 2014. Schedule 1. Table F For Microbiological Parameters.

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

Analyst	Reviewed By	Method Variation
HS	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

Senior Microbiologist



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Microbiology Test Report

Customer Details

Report No. WA-R-L-2007-14532

Crystalline Cleaning & Environmental Services

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



Request No. : WA-Q-L-2007-02154

Sample No. : WA-S-L-2007-14045

Sampling Date	: 15/07/2020	Report Date.	: 19/07/2020
Analysis Start Date.	: 15/07/2020	Analysis End Date.	: 18/07/2020
Sample Location.	: Serco Accommodation	Sampled By	: Client Representative
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: Not Applicable	Sampling Method	: Not Applicable
Temperature °C	: Not Applicable	Site Observation	: Not Applicable
Sampling Container	: Plastic Bottle	Source of Sample	: Apartment No.102
Sampling Point	: Cold Water	Preservation	: Not Applicable
Sample Description	: Water		

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

Note : Not Detected=<1CFU

Limits based on RSB Water Quality Regulation 2014. Schedule 1. Table F For Microbiological Parameters.

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

Analyst	Reviewed By	Method Variation
HS	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

Senior Microbiologist

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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-2007-14530



Request No. : WA-Q-L-2007-02154

Sample No. : WA-S-L-2007-14044

Sampling Date	: 15/07/2020	Report Date.	: 19/07/2020
Analysis Start Date.	: 15/07/2020	Analysis End Date.	: 18/07/2020
Sample Location.	: Serco Accommodation	Sampled By	: Client Representative
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: Not Applicable	Sampling Method	: Not Applicable
Temperature °C	: Not Applicable	Site Observation	: Not Applicable
Sampling Container	: Plastic Bottle	Source of Sample	: Apartment No.204
Sampling Point	: Cold Water	Preservation	: Not Applicable
Sample Description	: Water		

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

Note : Not Detected=<1CFU

Limits based on RSB Water Quality Regulation 2014. Schedule 1. Table F For Microbiological Parameters.

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

Analyst	Reviewed By	Method Variation
HS	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

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Senior Microbiologist



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Customer Details

Crystalline Cleaning & Environmental Services

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

Report No. WA-R-L-2007-14534



Request No. : WA-Q-L-2007-02154

Sample No. : WA-S-L-2007-14046

Sampling Date	: 15/07/2020	Report Date.	: 19/07/2020
Analysis Start Date.	: 15/07/2020	Analysis End Date.	: 18/07/2020
Sample Location.	: Serco Accommodation	Sampled By	: Client Representative
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: Not Applicable	Sampling Method	: Not Applicable
Temperature °C	: Not Applicable	Site Observation	: Not Applicable
Sampling Container	: Plastic Bottle	Source of Sample	: Apartment No.204
Sampling Point	: Hot Water	Preservation	: Not Applicable
Sample Description	: Water		

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

Note : Not Detected=<1CFU

Limits based on RSB Water Quality Regulation 2014. Schedule 1. Table F For Microbiological Parameters.

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

Analyst	Reviewed By	Method Variation
HS	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

Senior Microbiologist



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Legionella 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-2007-14527



Request No. : WA-Q-L-2007-02154

Sample No. : WA-S-L-2007-14043

Sampling Date	: 15/07/2020	Report Date.	: 26/07/2020
Analysis Start Date.	: 15/07/2020	Analysis End Date.	: 25/07/2020
Sample Location.	: Serco Accommodation	Sampled By	: Client Representative
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: Not Applicable	Sampling Method	: Not Applicable
Temperature °C	: Not Applicable	Site Observation	: Not Applicable
Sampling Container	: Plastic Bottle	Source of Sample	: Main Tank
Sampling Point	: Basement	Preservation	: Not Applicable
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	Zero/L

Note : Limit of Detection=<1CFU/L

Procedure: WSOP-MB-0051 Direct Placing of Membrane on BCYE+L-Cysteine/Membrane Filter Followed by Washing Procedure in Funnel.

Limits based on RSB Water Quality Regulation 2014. Schedule 1. Table F For Microbiological Parameters.

Remarks :The tested result of the sample is found to be satisfactory within the specified limits.

Analyst	Reviewed By	Method Variation
HS	SM	None

Key Words :CFU-Colony Forming Unit; BS-British Standard; ISO-International Organization for Standardization.

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Senior Microbiologist

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Legionella 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-2007-14529



Request No. : WA-Q-L-2007-02154

Sample No. : WA-S-L-2007-14044

Sampling Date	: 15/07/2020	Report Date.	: 26/07/2020
Analysis Start Date.	: 15/07/2020	Analysis End Date.	: 25/07/2020
Sample Location.	: Serco Accommodation	Sampled By	: Client Representative
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: Not Applicable	Sampling Method	: Not Applicable
Temperature °C	: Not Applicable	Site Observation	: Not Applicable
Sampling Container	: Plastic Bottle	Source of Sample	: Apartment No.204
Sampling Point	: Cold Water	Preservation	: Not Applicable
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	Zero/L

Note : Limit of Detection=<1CFU/L

Procedure: WSOP-MB-0051 Direct Placing of Membrane on BCYE+L-Cysteine/Membrane Filter Followed by Washing Procedure in Funnel.

Limits based on RSB Water Quality Regulation 2014. Schedule 1. Table F For Microbiological Parameters.

Remarks :The tested result of the sample is found to be satisfactory within the specified limits.

Analyst	Reviewed By	Method Variation
HS	SM	None

Key Words :CFU-Colony Forming Unit; BS-British Standard; ISO-International Organization for Standardization

Signed for and on behalf of Wimpey Laboratories

Dr. Suresh Murugan Ph.D

Senior Microbiologist



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Legionella 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-2007-14531



Request No. : WA-Q-L-2007-02154

Sample No. : WA-S-L-2007-14045

Sampling Date	: 15/07/2020	Report Date.	: 26/07/2020
Analysis Start Date.	: 15/07/2020	Analysis End Date.	: 25/07/2020
Sample Location.	: Serco Accommodation	Sampled By	: Client Representative
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: Not Applicable	Sampling Method	: Not Applicable
Temperature °C	: Not Applicable	Site Observation	: Not Applicable
Sampling Container	: Plastic Bottle	Source of Sample	: Apartment No.102
Sampling Point	: Cold Water	Preservation	: Not Applicable
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	Zero/L

Note : Limit of Detection=<1CFU/L

Procedure: WSOP-MB-0051 Direct Placing of Membrane on BCYE+L-Cysteine/Membrane Filter Followed by Washing Procedure in Funnel.

Limits based on RSB Water Quality Regulation 2014. Schedule 1. Table F For Microbiological Parameters.

Remarks :The tested result of the sample is found to be satisfactory within the specified limits.

Analyst	Reviewed By	Method Variation
HS	SM	None

Key Words :CFU-Colony Forming Unit; BS-British Standard; ISO-International Organization for Standardization.

Signed for and on behalf of Wimpey Laboratories



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Senior Microbiologist

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Legionella 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-2007-14533



Request No. : WA-Q-L-2007-02154

Sample No. : WA-S-L-2007-14046

Sampling Date	: 15/07/2020	Report Date.	: 26/07/2020
Analysis Start Date.	: 15/07/2020	Analysis End Date.	: 25/07/2020
Sample Location.	: Serco Accommodation	Sampled By	: Client Representative
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: Not Applicable	Sampling Method	: Not Applicable
Temperature °C	: Not Applicable	Site Observation	: Not Applicable
Sampling Container	: Plastic Bottle	Source of Sample	: Apartment No.204
Sampling Point	: Hot Water	Preservation	: Not Applicable
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731: 2017	CFU/L	Not Detected	Zero/L

Note : Limit of Detection=<1CFU/L

Procedure: WSOP-MB-0051 Direct Placing of Membrane on BCYE+L-Cysteine/Membrane Filter Followed by Washing Procedure in Funnel.

Limits based on RSB Water Quality Regulation 2014. Schedule 1. Table F For Microbiological Parameters.

Remarks :The tested result of the sample is found to be satisfactory within the specified limits.

Analyst	Reviewed By	Method Variation
HS	SM	None

Key Words :CFU-Colony Forming Unit; BS-British Standard; ISO-International Organization for Standardization.

Signed for and on behalf of Wimpey Laboratories

Dr. Suresh Murugan Ph.D

Senior Microbiologist



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CONSULTING SERVICE REPORT

CUSTOMER: SERCO, MIDDLE EAST, ABUDHABI
DATE: 15-07-2020
SITE: SERCO ACCOMONDATION, ABUDHABI
SAMPLED BY: CRYSTALLINE REP

POTABLE WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RCC MAIN TANK
pH at 25°C	7.0 – 9.2	7.98
Conductivity at 25°C, $\mu\text{S/cm}$	--	261
Total Dissolved Solids at 180°C (TDS)	1000 Max.	169
Total Hardness, ppm as CaCO_3	300 Max.	57
Calcium Hardness, ppm as CaCO_3	200 Max.	51
Chloride, ppm as Cl^-	250 Max.	49
Iron, ppm as Fe	0.2 Max.	<0.05
Zinc (Zn), mg/l	0.1 Max	<0.05
Sulphate	250 Max.	<10
Fluorides (F)	1.5 Max	<0.05

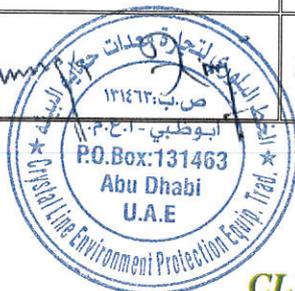
Treatment Residuals

Color, mg/l	15 Max.	Clear
Odor	Unobjectionable	ND
Turbidity in NTU	5 Max	<1.0

*** 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. ⇨	No action recommended.
Dissolved iron levels are within control limits ⇨	No action recommended.

Service Engineer:	MURUGARAJ P	Client:	M/S: SERCO, MIDDLE EAST, ABUDHABI
Signature:		Signature:	



CONSULTING SERVICE REPORT

CUSTOMER: SERCO, MIDDLE EAST, ABUDHABI

DATE: 15-07-2020

SITE: SERCO ACCOMONDATION, ABUDHABI

SAMPLED BY: CRYSTALLINE REP

POTABLE WATER ANALYSIS

PARAMETER	CONTROL LIMITS	POTABLE WATER APPARTMENT 102 (Cold Water Outlet)
pH at 25°C	7.0 - 9.2	8.06
Conductivity at 25°C, µs/cm	--	250
Total Dissolved Solids at 180°C (TDS)	1000 Max.	162
Total Hardness, ppm as CaCO ₃	300 Max.	63
Calcium Hardness, ppm as CaCO ₃	200 Max.	54
Chloride, ppm as Cl ⁻	250 Max.	51
Iron, ppm as Fe	0.2 Max.	<0.05
Zinc (Zn), mg/l	0.1 Max	<0.05
Sulphate	250 Max.	<10
Fluorides (F)	1.5 Max	<0.05

Treatment Residuals

Color, mg/l	15 Max.	Clear
Odor	Unobjectionable	ND
Turbidity in NTU	5 Max	<1.0

***** All test results expressed in parts per million (ppm) as CaCO₃ except pH and conductivity (µmhos).**

COMMENTS:

ACTION:

The pH and Conductivity/TDS are found satisfactory. ⇨	No action recommended.
Dissolved iron levels are within control limits ⇨	No action recommended.

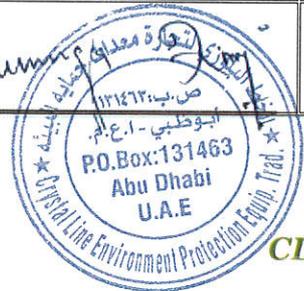
Service Engineer: MURUGARAJ P

Client:

M/S: SERCO, MIDDLE EAST, ABUDHABI

Signature:

P. Murugaraaj P



Signature:



CONSULTING SERVICE REPORT

CUSTOMER: SERCO, MIDDLE EAST, ABUDHABI

DATE: 15-07-2020

SITE: SERCO ACCOMONDATION, ABUDHABI

SAMPLED BY: CRYSTALLINE REP

POTABLE WATER ANALYSIS

PARAMETER	CONTROL LIMITS	POTABLE WATER APPARTMENT 204 (Cold Water Outlet)
pH at 25°C	7.0 – 9.2	8.09
Conductivity at 25°C, $\mu\text{S}/\text{cm}$	--	261
Total Dissolved Solids at 180°C (TDS)	1000 Max.	169
Total Hardness, ppm as CaCO_3	300 Max.	56
Calcium Hardness, ppm as CaCO_3	200 Max.	51
Chloride, ppm as Cl^-	250 Max.	50
Iron, ppm as Fe	0.2 Max.	<0.05
Zinc (Zn), mg/l	0.1 Max	<0.05
Sulphate	250 Max.	<10
Fluorides (F)	1.5 Max	<0.05

Treatment Residuals

Color, mg/l	15 Max.	Clear
Odor	Unobjectionable	ND
Turbidity in NTU	5 Max	<1.0

***** 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. ⇨	No action recommended.
Dissolved iron levels are within control limits ⇨	No action recommended.

Service Engineer:

MURUGARAJ P

Client:

M/S: SERCO, MIDDLE EAST, ABUDHABI

Signature:

P. Murugaraaj P

Signature:



CONSULTING SERVICE REPORT

CUSTOMER: SERCO, MIDDLE EAST, ABUDHABI

DATE: 15-07-2020

SITE: SERCO ACCOMONDATION, ABUDHABI

SAMPLED BY: CRYSTALLINE REP

POTABLE WATER ANALYSIS

PARAMETER	CONTROL LIMITS	HOT WATER APPARTMENT 204(Hot Water Outlet)
pH at 25°C	7.0 - 9.2	8.43
Conductivity at 25°C, $\mu\text{s}/\text{cm}$	--	234
Total Dissolved Solids at 180°C (TDS)	1000 Max.	152
Total Hardness, ppm as CaCO_3	300 Max.	67
Calcium Hardness, ppm as CaCO_3	200 Max.	61
Chloride, ppm as Cl_2	250 Max.	55
Iron, ppm as Fe	0.2 Max.	<0.05
Zinc (Zn), mg/l	0.1 Max	<0.05
Sulphate	250 Max.	<10
Fluorides (F)	1.5 Max	<0.05

Treatment Residuals

Color, mg/l	15 Max.	Clear
Odor	Unobjectionable	ND
Turbidity in NTU	5 Max	<1.0

***** 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. ⇨	No action recommended.
Dissolved iron levels are within control limits ⇨	No action recommended.
Zinc levels are satisfactory. ⇨	No action recommended.

Service Engineer:	MURUGARAJ P	Client:	M/S: SERCO, MIDDLE EAST, ABUDHABI
Signature:		Signature:	

