



Microbiology Test Report

Customer Details

Crystalline Environmental Services

Report No. WA-R-L-2003-5214



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5121
Sampling Date/time	: 16/3/2020 , 19:05	Report Date.	: 21/3/2020
Analysis Start Date.	: 16/3/2020	Analysis End Date.	: 19/3/2020
Sample Location.	: ADIA (Abu Dhabi Investment Authorities) - Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0140	Sampling Method	: APHA 9060 A&B
Temperature °C	: 8.3°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Basement 02
Sampling Point	: Chilled Water	Preservation	: 4-8°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B	CFU/100ml	Not Detected	-

Note : Not Detected=<1CFU

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	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 Environmental Services

Report No. WA-R-L-2003-5220



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5127
Sampling Date/time	: 16/3/2020 , 19:05	Report Date.	: 21/3/2020
Analysis Start Date.	: 16/3/2020	Analysis End Date.	: 19/3/2020
Sample Location.	: ADIA (Abu Dhabi Investment Authorities) - Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0140	Sampling Method	: APHA 9060 A&B
Temperature °C	: 10.4°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Groundfloor - Secondary Pump Room
Sampling Point	: Chilled Water	Preservation	: 4-8°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeroginosa	CCFRA 2.5.2	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B	CFU/100ml	Not Detected	-

Note : Not Detected=<1CFU

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	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 Environmental Services

Report No. WA-R-L-2003-5216



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5123
Sampling Date/time	: 16/3/2020 , 19:05	Report Date.	: 21/3/2020
Analysis Start Date.	: 16/3/2020	Analysis End Date.	: 19/3/2020
Sample Location.	: ADIA (Abu Dhabi Investment Authorities) - Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0140	Sampling Method	: APHA 9060 A&B
Temperature °C	: 9.1°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: LG Floor
Sampling Point	: Chilled Water	Preservation	: 4-8°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B	CFU/100ml	Not Detected	-

Note : Not Detected=<1CFU

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	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-2003-5218

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5125
Sampling Date/time	: 16/3/2020 , 19:05	Report Date.	: 21/3/2020
Analysis Start Date.	: 16/3/2020	Analysis End Date.	: 19/3/2020
Sample Location.	: ADIA (Abu Dhabi Investment Authorities) - Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0140	Sampling Method	: APHA 9060 A&B
Temperature °C	: 8.9°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: LG Floor
Sampling Point	: Chilled Water (Water Cooled)	Preservation	: 4-8°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B	CFU/100ml	Not Detected	-

Note : Not Detected=<1CFU

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	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

Report No. WA-R-L-2003-5236

Customer Details

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5143
Sampling Date/time	: 16/3/2020 , 19:05	Report Date.	: 21/3/2020
Analysis Start Date.	: 16/3/2020	Analysis End Date.	: 19/3/2020
Sample Location.	: ADIA (Abu Dhabi Investment Authorities) - Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0141	Sampling Method	: APHA 9060 A&B
Temperature °C	: 9.4°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Level 06
Sampling Point	: Chilled Water	Preservation	: 4-8°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B	CFU/100ml	Not Detected	-

Note : Not Detected=<=1CFU

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	SM	None

Key Words :FU-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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Test Report

Customer Details

Crystalline Environmental Services

Report No. WA-R-L-2003-5451



Request No.	: WA-Q-L-2003-0915	Sample No.	: WA-S-L-2003-5350
Sampling Date/time	: 21/3/2020 , 14:50	Report Date.	: 24/3/2020
Analysis Start Date.	: 21/3/2020	Analysis End Date.	: 23/3/2020
Sample Location.	: ADIA CAR PARKING, ABU DHABI	Sampled By	: Shoukth
Sample Identification	: NOT GIVEN	Sample Submitted as	: WATER
Sample Certificate No	: 0144	Sampling Method	: APHA 9060 A & B
Temperature °C	: 7.1	Site Observation	: CLEAR
Sampling Container	: STERILE PLASTIC BOTTLE	Source of Sample	: ROOF CHILLED WATER
Sampling Point	: AIR COOLER	Preservation	: 4-8°C
Sample Description	: WATER		

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I	CFU/100 ml	Not Detected	--
Faecal Coliforms	APHA 9222 D	CFU/100 ml	Not Detected	--
Heterotrophic plate count	APHA 9215 B	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2	CFU/250 ml	Not Detected	--
Total Coliforms	APHA 9222 B	CFU/100 ml	Not Detected	--

Note : Not Detected=<1CFU

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Report No. WA-R-L-2003-5215

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5122
Sampling Date/time	: 16/3/2020 , 19:05	Report Date.	: 26/3/2020
Analysis Start Date.	: 16/3/2020	Analysis End Date.	: 26/3/2020
Sample Location.	: ADIA (Abu Dhabi Investment Authorities) - Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0140	Sampling Method	: BS 7592
Temperature °C	: 8.3°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Basement 02
Sampling Point	: Chilled Water	Preservation	: 10°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat treatment, Acid treatment followed by Plating on GVPC/BCYE Agar

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	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

Report No. WA-R-L-2003-5221

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5128
Sampling Date/time	: 16/3/2020 , 19:05	Report Date.	: 26/3/2020
Analysis Start Date.	: 16/3/2020	Analysis End Date.	: 26/3/2020
Sample Location.	: ADIA (Abu Dhabi Investment Authorities) - Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0140	Sampling Method	: BS 7592
Temperature °C	: 10.4°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Groundfloor - Secondary Pump Room
Sampling Point	: Chilled Water	Preservation	: 10°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat treatment, Acid treatment followed by Plating on GVPC/BCYE Agar

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	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

Report No. WA-R-L-2003-5217

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5124
Sampling Date/time	: 16/3/2020 , 19:05	Report Date.	: 26/3/2020
Analysis Start Date.	: 16/3/2020	Analysis End Date.	: 26/3/2020
Sample Location.	: ADIA (Abu Dhabi Investment Authorities) - Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0140	Sampling Method	: BS 7592
Temperature °C	: 9.1°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: LG Floor
Sampling Point	: Chilled Water	Preservation	: 10°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat treatment, Acid treatment followed by Plating on GVPC/BCYE Agar

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	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

Report No. WA-R-L-2003-5219

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5126
Sampling Date/time	: 16/3/2020 , 19:05	Report Date.	: 26/3/2020
Analysis Start Date.	: 16/3/2020	Analysis End Date.	: 26/3/2020
Sample Location.	: ADIA (Abu Dhabi Investment Authorities) - Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0140	Sampling Method	: BS 7592
Temperature °C	: 8.9°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: LG Floor
Sampling Point	: Chilled Water (Water Cooled)	Preservation	: 10°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat treatment, Acid treatment followed by Plating on GVPC/BCYE Agar

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	SM	None

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

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Dr. Suresh Murugan Ph.D

Senior Microbiologist



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Legionella Test Report

Customer Details

Report No. WA-R-L-2003-5237

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5144
Sampling Date/time	: 16/3/2020 , 19:05	Report Date.	: 26/3/2020
Analysis Start Date.	: 16/3/2020	Analysis End Date.	: 26/3/2020
Sample Location.	: ADIA (Abu Dhabi Investment Authorities) - Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0141	Sampling Method	: BS 7592
Temperature °C	: 9.4°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Level 06
Sampling Point	: Chilled Water	Preservation	: 10°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731	CFU/L	Not Detected	100CFU/L

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat treatment, Acid treatment followed by Plating on GVPC/BCYE Agar

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	SM	None

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

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Legionella Test Report

Customer Details

Report No. WA-R-L-2003-5452

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0915	Sample No.	: WA-S-L-2003-5351
Sampling Date/time	: 21/3/2020 , 14:50	Report Date.	: 31/3/2020
Analysis Start Date.	: 21/3/2020	Analysis End Date.	: 31/3/2020
Sample Location.	: ADIA CAR PARKING, ABU DHABI	Sampled By	: Shoukth
Sample Identification	: NOT GIVEN	Sample Submitted as	: WATER
Sample Certificate No	: 0144	Sampling Method	: BS 7592
Temperature °C	: 7.1	Site Observation	: CLEAR
Sampling Container	: STERILE PLASTIC BOTTLE	Source of Sample	: ROOF CHILLED WATER
Sampling Point	: AIR COOLER	Preservation	: 10°C
Sample Description	: WATER		

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

Note : Limit of Detection=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on GVPC/BCYE Agar.

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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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Microbiology Test Report

Customer Details

Crystalline Environmental Services

Report No. WA-R-L-2003-5120



Request No.	: WA-Q-L-2003-0872	Sample No.	: WA-S-L-2003-5028
Sampling Date/time	: 15/3/2020 , 20:10	Report Date.	: 21/3/2020
Analysis Start Date.	: 15/3/2020	Analysis End Date.	: 18/3/2020
Sample Location.	: ADIA-Abu Dhabi Investment Authorities, Head Quarters	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0138	Sampling Method	: APHA 9060 A&B
Temperature °C	: 8.3	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Chiller Water
Sampling Point	: Basement	Preservation	: 4-8°C
Sample Description	: Chiller Water		

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I	CFU/100ml	Not Detected	--
Faecal Coliforms	APHA 9222 D	CFU/100ml	Not Detected	--
Heterotrophic plate count	APHA 9215 B	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2	CFU/250ml	Not Detected	--
Total Coliforms	APHA 9222 B	CFU/100ml	Not Detected	--

Note : Not Detected=<1CFU

Limit based on DM. Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	SM	None

Key Words :CFU-Colony Forming Unit; APHA-American Public Health Association; CCFRA-Camden 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 Environmental Services

Report No. WA-R-L-2003-5127



Request No.	: WA-Q-L-2003-0872	Sample No.	: WA-S-L-2003-5035
Sampling Date/time	: 15/3/2020 , 20:10	Report Date.	: 21/3/2020
Analysis Start Date.	: 15/3/2020	Analysis End Date.	: 18/3/2020
Sample Location.	: ADIA-Abu Dhabi Investment Authorities, Head Quarters	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0138	Sampling Method	: APHA 9060 A&B
Temperature °C	: 10.9	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Chilled Water
Sampling Point	: 16th Floor	Preservation	: 4-8°C
Sample Description	: Chilled Water		

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I	CFU/100ml	Not Detected	--
Faecal Coliforms	APHA 9222 D	CFU/100ml	Not Detected	--
Heterotrophic plate count	APHA 9215 B	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2	CFU/100ml	Not Detected	--
Total Coliforms	APHA 9222 B	CFU/100ml	Not Detected	--

Note : Not Detected=<1CFU

Limit based on DM. Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	SM	None

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

Signed for and on behalf of Wimpey Laboratories



Dr. Suresh Murugan Ph.D

Senior Microbiologist

Test results relate only to the samples tested.

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Microbiology Test Report

Customer Details

Crystalline Environmental Services

Report No. WA-R-L-2003-5140



Request No.	: WA-Q-L-2003-0872	Sample No.	: WA-S-L-2003-5048
Sampling Date/time	: 15/3/2020 , 20:10	Report Date.	: 21/3/2020
Analysis Start Date.	: 15/3/2020	Analysis End Date.	: 18/3/2020
Sample Location.	: ADIA-Abu Dhabi Investment Authorities, Head Quarters	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0139	Sampling Method	: APHA 9060 A&B
Temperature °C	: 7.4	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Plant Room Chiller Water
Sampling Point	: 37th Floor	Preservation	: 4-8°C
Sample Description	: Chiller Water		

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I	CFU/100ml	Not Detected	--
Faecal Coliforms	APHA 9222 D	CFU/100ml	Not Detected	--
Heterotrophic plate count	APHA 9215 B	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2	CFU/250ml	Not Detected	--
Total Coliforms	APHA 9222 B	CFU/100ml	Not Detected	--

Note : Not Detected=<1CFU

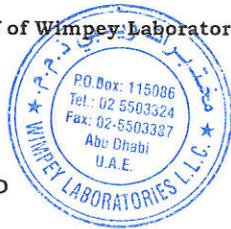
Limit based on DM. Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	SM	None

Key Words :CFU-Colony Forming Unit; APHA-American Public Health Association; CCFRA-Camden 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

Report No. WA-R-L-2003-5143

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0873	Sample No.	: WA-S-L-2003-5051
Sampling Date/time	: 15/3/2020 , 20:10	Report Date.	: 25/3/2020
Analysis Start Date.	: 15/3/2020	Analysis End Date.	: 25/3/2020
Sample Location.	: ADIA-Abu Dhabi Investment Authorities, Head Quarters	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0138	Sampling Method	: BS 7592
Temperature °C	: 8.3	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Chiller Water
Sampling Point	: Basement	Preservation	: 10°C
Sample Description	: Chiller Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731	CFU/L	Not Detected	100CFU/L

Note : Not Detected= \leq 20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on BCYE/GVPC Agar.

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	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

Report No. WA-R-L-2003-5150

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0873	Sample No.	: WA-S-L-2003-5058
Sampling Date/time	: 15/3/2020 , 20:10	Report Date.	: 25/3/2020
Analysis Start Date.	: 15/3/2020	Analysis End Date.	: 25/3/2020
Sample Location.	: ADIA-Abu Dhabi Investment Authorities, Head Quarters	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0138	Sampling Method	: BS 7592
Temperature °C	: 10.9	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Chilled Water
Sampling Point	: 16th Floor	Preservation	: 10°C
Sample Description	: Chilled Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731	CFU/L	Not Detected	100CFU/L

Note : Not Detected=<20CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment, Acid Treatment followed by Plating on GVPC/BCYE Agar.

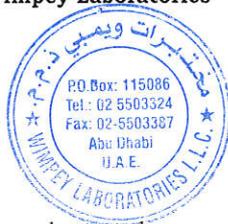
Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	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

Report No. WA-R-L-2003-5163

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0873	Sample No.	: WA-S-L-2003-5071
Sampling Date/time	: 15/3/2020 , 20:10	Report Date.	: 25/3/2020
Analysis Start Date.	: 15/3/2020	Analysis End Date.	: 25/3/2020
Sample Location.	: ADIA-Abu Dhabi Investment Authorities, Head Quarters	Sampled By	: Shoukth
Sample Identification	: Not Applicable	Sample Submitted as	: Water
Sample Certificate No	: 0139	Sampling Method	: BS 7592
Temperature °C	: 7.4	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Plant Room Chiller Water
Sampling Point	: 37th Floor	Preservation	: 10°C
Sample Description	: Chiller Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731	CFU/L	Not Detected	100CFU/L

Note : Not Detected= \leq 1CFU/L

Procedure: WSOP-MB-0051. Filtration, Washing, Heat Treatment and Acid Treatment followed by Plating on GVPC/BCYE Agar.

Limit based on DM.Rev2.Dated 6/2010 for guidelines for control of legionella in water system. Public Safety Department.

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

Analyst	Reviewed By	Method Variation
JY	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



Test results relate only to the samples tested.

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CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST

Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	16-03-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -Car Parking
Sample Type	Chilled Water	Sample Point	B2-Chilled Water

TEST RESULT

No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.42
2	Conductivity at 25°C, µs/cm	Max 3500	1314
3	TDS, ppm	---	854
4	Iron, ppm as Fe	0 - 2.0	0.15
5	Nitrite, ppm.	>800	500
6	Dip slide	<10 ³	ND

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

COMMENTS AND RECOMMENDATIONS

- pH Levels are satisfactory – No action recommended.
- Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

Murugara
Murugara
Service Engineer



CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST

Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	16-03-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -Car Parking
Sample Type	Chilled Water	Sample Point	L-06, Chilled Water

TEST RESULT

No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.35
2	Conductivity at 25°C, µs/cm	Max 3500	1461
3	TDS, ppm	---	949
4	Iron, ppm as Fe	0 - 2.0	0.52
5	Nitrite, ppm.	>800	560
6	Dip slide	<10 ³	ND

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

COMMENTS AND RECOMMENDATIONS

- pH Levels are satisfactory – No action recommended.
- Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

Murugara
Murugara
Service Engineer



CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST

Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	16-03-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -Car Parking
Sample Type	Chilled Water	Sample Point	GF-Chiller Yard - Water Cooled

TEST RESULT

No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	9.63
2	Conductivity at 25°C, µs/cm	Max 3500	1390
3	TDS, ppm	---	903
4	Iron, ppm as Fe	0 - 2.0	0.09
5	Nitrite, ppm.	>800	<5
6	Dip slide	<10 ³	ND

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

COMMENTS AND RECOMMENDATIONS

- pH Levels are satisfactory - No action recommended.
- Nitrite levels are low - Please maintain the nitrite level above 800PPM

Reported By,

Murugara
Murugara
Service Engineer



CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST

Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	16-03-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -Car Parking
Sample Type	Chilled Water	Sample Point	Roof Top Chiller Yard - Air Cooled

TEST RESULT

No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.48
2	Conductivity at 25°C, µs/cm	Max 3500	1412
3	TDS, ppm	---	917
4	Iron, ppm as Fe	0 - 2.0	0.08
5	Nitrite, ppm.	>800	510
6	Dip slide	<10 ³	ND

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

COMMENTS AND RECOMMENDATIONS

- pH Levels are satisfactory – No action recommended.
- Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

Murugaraj
Murugaraj
Service Engineer





CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST

Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	16-03-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -Car Parking
Sample Type	Chilled Water	Sample Point	GF-Secondary Pump Room

TEST RESULT

No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.41
2	Conductivity at 25°C, $\mu\text{s}/\text{cm}$	Max 3500	1540
3	TDS, ppm	---	1002
4	Iron, ppm as Fe	0 - 2.0	0.12
5	Nitrite, ppm.	>800	570
6	Dip slide	<10 ³	ND

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

COMMENTS AND RECOMMENDATIONS

- pH Levels are satisfactory - No action recommended.
- Nitrite levels are low - Please maintain the nitrite level above 800PPM

Reported By,

Murugara
Service Engineer



CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST

Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	15-03-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -HQ
Sample Type	Chilled Water	Sample Point	HQ-Basement Chilled Water

TEST RESULT

No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.41
2	Conductivity at 25°C, $\mu\text{s}/\text{cm}$	Max 3500	1314
3	TDS, ppm	---	871
4	Iron, ppm as Fe	0 - 2.0	0.16
5	Nitrite, ppm.	>800	540
6	Dip slide	<10 ³	ND

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

COMMENTS AND RECOMMENDATIONS

- pH Levels are satisfactory – No action recommended.
- Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

Murugara
Murugara
Service Engineer



CHILLED WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST

Site location	Abu Dhabi Investment Authority, Abu Dhabi	Service Visit:	15-03-2020
Sampled By	Crystalline Rep	Sample Location	ADIA -HQ
Sample Type	Chilled Water	Sample Point	HQ-L-37 Chilled Water

TEST RESULT

No	PARAMETER	CONTROL LIMITS	TEST RESULTS
1	pH at 25°C	9.0 - 10.5	10.32
2	Conductivity at 25°C, $\mu\text{s/cm}$	Max 3500	261
3	TDS, ppm	---	169
4	Iron, ppm as Fe	0 - 2.0	0.07
5	Nitrite, ppm.	>800	<10
6	Dip slide	<10 ³	ND

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

COMMENTS AND RECOMMENDATIONS

- pH Levels are satisfactory – No action recommended.
- Nitrite levels are low – Please maintain the nitrite level above 800PPM

Reported By,

Murugara
Murugara
Service Engineer

