



Microbiology Test Report

Customer Details

Report No. WA-R-L-2003-5234

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5141
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	: 28.9°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Level 06
Sampling Point	: Swimming Pool	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	Zero/100ml
Heterotrophic plate count	APHA 9215 B	CFU/ml	Not Detected	1000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2	CFU/250ml	Not Detected	Zero/100ml
Total Coliforms	APHA 9222 B	CFU/100ml	Not Detected	Zero/100ml

Note : Not Detected=<1CFU

Limit based on: Guide to the Executive Regulations of Law No.(2) for the year of 2012 (Swimming Pool), Issued by the Head of Urban Planning and Municipalities No.(3) for the year 2018, Page No.3.

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



Test results relate only to the samples tested.

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Microbiology Test Report

Customer Details

Report No. WA-R-L-2003-5232

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5139
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	: 38.9°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Level 05
Sampling Point	: Swimming Pool Balancing Tank	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	Zero/100ml
Heterotrophic plate count	APHA 9215 B	CFU/ml	Not Detected	1000CFU/ml
Pseudomonas aeruginosa	CCFRA 2.5.2	CFU/250ml	Not Detected	Zero/100ml
Total Coliforms	APHA 9222 B	CFU/100ml	Not Detected	Zero/100ml

Note : Not Detected=<1CFU

Limit based on: Guide to the Executive Regulations of Law No.(2) for the year of 2012 (Swimming Pool),
Issued by the Head of Urban Planning and Municipalities No.(3) for the year 2018, Page No.3.

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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Legionella Test Report

Customer Details

Report No. WA-R-L-2003-5235

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5142
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	: 28.9°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Level 06
Sampling Point	: Swimming Pool	Preservation	: 10°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731	CFU/L	Not Detected	<1CFU/L

Note : Not Detected=<1CFU/L

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

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-2003-5233

Crystalline Environmental Services



Request No.	: WA-Q-L-2003-0877	Sample No.	: WA-S-L-2003-5140
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	: 38.9°C	Site Observation	: Clear
Sampling Container	: Sterile Plastic Bottle	Source of Sample	: Level 05
Sampling Point	: Swimming Pool Balancing Tank	Preservation	: 10°C
Sample Description	: Water		

Parameters	Test Methods	Units	Results	Specification
Legionella	ISO 11731	CFU/L	Not Detected	<1CFU/L

Note : Not Detected=<1CFU/L

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

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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SWIMMING POOL - WATER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location	ABU DHABI INVESTMENT AUTHORITY, ABU DHABI	Service Visit:	21-03-2020
Sampled By	Crystalline Rep	Sample Location	ADIA - Car Parking
Sample Type	Pool Water		

TEST RESULT

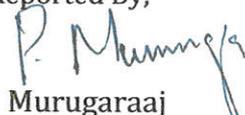
No	Parameter	Control limits	Main Pool	Balancing Tank
1	pH at 25°C	7.2 - 7.6	7.47	7.49
2	Conductivity at 25°C, µs/cm	Max 1500	339	341
3	TDS, ppm	Max 1000	220	226
4	Alkalinity	80 - 120	82	79
5	Calcium Hardness	100 - 500	109	118
6	Residual Chlorine	1.0 - 2.0	1.36	1.12
7	Cyanuric Acid	20 - 60	31	24
8	Dip slide	<10 ³	ND	ND

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

COMMENTS AND RECOMMENDATIONS

	Main Pool	Balancing Tank
1	PH, Conductivity & TDS levels are normal	PH, Conductivity & TDS levels are normal
2	Alkalinity levels are satisfactory	Alkalinity is slightly low - kindly maintain the desired level
3	Calcium Hardness levels are satisfactory	Calcium Hardness levels are satisfactory
4	Residual Chlorine & Cyanuric acid levels are satisfactory, please maintain parameters within the control limit	Residual Chlorine levels are slightly low, please maintain parameters within the control limit

Reported By,


Murugaraaj
Service Engineer

