



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-2010-23628



Request No. : WA-Q-L-2010-03430

Sample No. : WA-S-L-2010-22854

Sampling Date	: 18/10/2020	Report Date.	: 20/10/2020
Analysis Start Date.	: 18/10/2020	Analysis End Date.	: 20/10/2020
Sample Location.	: AbuDhabi Investment Authorities (ADIA) -Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Given	Sample Submitted as	: Water
Sample Certificate No	: 2434	Sampling Method	: APHA 9060 A & B
Site Observation	: Clear	Sampling Container	: Sterile Plastic Bottle
Source of Sample	: Cooling Tower Basin	Sampling Point	: 06th Floor - Cooling Tower # 04
Preservation	: 4-8°C	Sample Description	: Water

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeroginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	-

Note : Not Detected= \leq 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
SM	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

Head of Microbiology Department

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Crystalline Cleaning & Environmental Services

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

Report No. WA-R-L-2010-23627



Request No. : WA-Q-L-2010-03430

Sample No. : WA-S-L-2010-22853

Sampling Date	: 18/10/2020	Report Date.	: 20/10/2020
Analysis Start Date.	: 18/10/2020	Analysis End Date.	: 20/10/2020
Sample Location.	: Abu Dhabi Investment Authorities (ADIA) -Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Given	Sample Submitted as	: Water
Sample Certificate No	: 2434	Sampling Method	: APHA 9060 A & B
Site Observation	: Clear	Sampling Container	: Sterile Plastic Bottle
Source of Sample	: Cooling Tower Basin	Sampling Point	: 06th Floor - Cooling Tower # 03
Preservation	: 4-8°C	Sample Description	: Water

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeroginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	-

Note : Not Detected= \leq 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
SM	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



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Head of Microbiology Department

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

Report No. WA-R-L-2010-23626



Request No. : WA-Q-L-2010-03430

Sample No. : WA-S-L-2010-22852

Sampling Date	: 18/10/2020	Report Date.	: 20/10/2020
Analysis Start Date.	: 18/10/2020	Analysis End Date.	: 20/10/2020
Sample Location.	: Abu Dhabi Investment Authorities (ADIA) -Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Given	Sample Submitted as	: Water
Sample Certificate No	: 2434	Sampling Method	: APHA 9060 A & B
Site Observation	: Clear	Sampling Container	: Sterile Plastic Bottle
Source of Sample	: Cooling Tower Basin	Sampling Point	: 06th Floor - Cooling Tower # 02
Preservation	: 4-8°C	Sample Description	: Water

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeroginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	-

Note : Not Detected= \leq 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
SM	SM	None

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

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

Report No. WA-R-L-2010-23625



Request No. : WA-Q-L-2010-03430

Sample No. : WA-S-L-2010-22851

Sampling Date	: 18/10/2020	Report Date.	: 20/10/2020
Analysis Start Date.	: 18/10/2020	Analysis End Date.	: 20/10/2020
Sample Location.	: Abu Dhabi Investment Authorities (ADIA) -Car Parking	Sampled By	: Shoukth
Sample Identification	: Not Given	Sample Submitted as	: Water
Sample Certificate No	: 2434	Sampling Method	: APHA 9060 A & B
Site Observation	: Clear	Sampling Container	: Sterile Plastic Bottle
Source of Sample	: Cooling Tower Basin	Sampling Point	: 06th Floor - Cooling Tower # 01
Preservation	: 4-8°C	Sample Description	: Water

Parameters	Test Methods	Units	Results	Specification
Escherichia Coli	APHA 9222 B,H& I 23rd Ed. 2017	CFU/100ml	Not Detected	-
Faecal Coliforms	APHA 9222 D 23rd Ed. 2017	CFU/100ml	Not Detected	-
Heterotrophic plate count	APHA 9215 B 23rd Ed. 2017	CFU/ml	Not Detected	10000CFU/ml
Pseudomonas aeroginosa	CCFRA 2.5.2 5th Ed. 2007	CFU/250ml	Not Detected	-
Total Coliforms	APHA 9222 B 23rd Ed. 2017	CFU/100ml	Not Detected	-

Note : Not Detected= \leq 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
SM	SM	None

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

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COOLING TOWER ANALYSIS REPORT

Client Name: SERCO, MIDDLE EAST			
Site location:	ABU DHABI INVESTMENT AUTHORITY, ABUDHABI	Service Visit:	18-10-2020
Sampled By:	Crystalline Rep	Sample Location:	ADIA - Car Parking
Sample Type:	Cooling Tower Water		

	Parameter	Control limits	Cooling tower 1	Cooling tower 2	Cooling tower 3	Cooling tower 4
1	pH at 25°C	8.5-9.5	8.56	8.51	8.57	8.55
2	Conductivity at 25°C, µs/cm	Max 1500	873	856	878	842
3	Total Dissolved Solids (TDS)	Max 1000	567	556	572	547
4	Residual Chlorine	0.2 - 0.5	<0.05	<0.05	<0.05	<0.05
5	Calcium Hardness	200-350	248	236	254	304
6	Chlorides	Max 200	192	188	196	190
7	Iron	0 - 2.0	0.16	0.23	0.12	0.19
8	Phosphate/phosphonate	4 - 6	5.6	4.3	4.8	5.7

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

COMMENTS AND RECOMMENDATIONS

	Cooling Tower-1	Cooling Tower-2	Cooling Tower-3	Cooling Tower-4
1	PH Level is satisfactory			
2	Conductivity & TDS levels are satisfactory			
3	Calcium Hardness, Dissolved iron and Chloride levels are satisfactory	Calcium Hardness, Dissolved iron and Chloride levels are satisfactory	Calcium Hardness, Dissolved iron and Chloride levels are satisfactory	Calcium Hardness, Dissolved iron and Chloride levels are satisfactory

Reported By,

Murugaraaj
Service Engineer

