

TEST REPORT

Report No: QMTL/R-152540/2021

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-152540
ATTN : MR. JASMAN PINTO		Date Received	10 Mar 2021
		Date(s) Tested	10 Mar 2021 - 12 Mar 2021
		Date Reported	16 Mar 2021
Sample Description	P2, North ETS Room, Chiller -1		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	Galleria Mall, GAMI	Sampling Date/Time	10.03.2021 / 10:40 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	7°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL PARAMETERS				
Total Bacterial Count*	APHA 9215 B -23rd Edition	CFU/ml	10,000	130
Total Coliforms*	APHA 9222 B -23rd Edition	CFU/100 ml	-	Zero
Fecal Coliforms*	APHA 9222 D -23rd Edition	CFU/100 ml	-	Zero
Pseudomonas aeruginosa*	APHA 9213 E -23rd Edition	CFU/100 ml	-	Zero
E.coli*	APHA 9222 I -23rd Edition	CFU/100 ml	-	Zero

The Analysis results denoted by (*) are part of the laboratory ENAS Accreditation to ISO/IEC 17025 : 2017.

Remarks	The sample meets DM Water Systems quality (2010) specifications for Cooling Water Systems with respect to the above tests only.
Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, DM: Dubai Municipality, NP: Not Provided, NA: Not Applicable, WI: Work Instruction
Test method deviation	None
Test performed by Emp#	103 & 14
Report prepared by Emp#	72
The above test results are only applicable to the sample(s) referred above.	

Reported By
ANILA GEORGE
LABORATORY MANAGER

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END OF REPORT

TEST REPORT

Report No: QMTL/R-152541/2021

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-152541
ATTN : MR. JASMAN PINTO		Date Received	10 Mar 2021
		Date(s) Tested	10 Mar 2021 - 12 Mar 2021
		Date Reported	16 Mar 2021
Sample Description	P2, North ETS Room, Chiller -2		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	Galleria Mall, GAMI	Sampling Date/Time	10.03.2021 / 10:50 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	7.2°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL PARAMETERS				
Total Bacterial Count*	APHA 9215 B -23rd Edition	CFU/ml	10,000	190
Total Coliforms*	APHA 9222 B -23rd Edition	CFU/100 ml	-	Zero
Fecal Coliforms*	APHA 9222 D -23rd Edition	CFU/100 ml	-	Zero
Pseudomonas aeruginosa*	APHA 9213 E -23rd Edition	CFU/100 ml	-	Zero
E.coli*	APHA 9222 I -23rd Edition	CFU/100 ml	-	Zero

The Analysis results denoted by (*) are part of the laboratory ENAS Accreditation to ISO/IEC 17025 : 2017.

Remarks	The sample meets DM Water Systems quality (2010) specifications for Cooling Water Systems with respect to the above tests only.
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Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, DM: Dubai Municipality, NP: Not Provided, NA: Not Applicable, WI: Work Instruction
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Test method deviation	None
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Test performed by Emp#	103 & 14
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Report prepared by Emp#	72
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The above test results are only applicable to the sample(s) referred above.

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END OF REPORT

TEST REPORT

Report No: QMTL/R-152539/2021

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-152539
ATTN : MR. JASMAN PINTO		Date Received	10 Mar 2021
		Date(s) Tested	10 Mar 2021 - 12 Mar 2021
		Date Reported	16 Mar 2021
Sample Description	P2, South ETS Room, Chiller -1		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	Galleria Mall, GAMI	Sampling Date/Time	10.03.2021 / 10:30 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	6.8°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL PARAMETERS				
Total Bacterial Count*	APHA 9215 B -23rd Edition	CFU/ml	10,000	180
Total Coliforms*	APHA 9222 B -23rd Edition	CFU/100 ml	-	Zero
Fecal Coliforms*	APHA 9222 D -23rd Edition	CFU/100 ml	-	Zero
Pseudomonas aeruginosa*	APHA 9213 E -23rd Edition	CFU/100 ml	-	Zero
E.coli*	APHA 9222 I -23rd Edition	CFU/100 ml	-	Zero

The Analysis results denoted by (*) are part of the laboratory ENAS Accreditation to ISO/IEC 17025 : 2017.

Remarks	The sample meets DM Water Systems quality (2010) specifications for Cooling Water Systems with respect to the above tests only.
Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, DM: Dubai Municipality, NP: Not Provided, NA: Not Applicable, WI: Work Instruction
Test method deviation	None
Test performed by Emp#	103 & 14
Report prepared by Emp#	72
The above test results are only applicable to the sample(s) referred above.	

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TEST REPORT

Report No: QMTL/R-152542/2021

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-152542
		Date Received	10 Mar 2021
		Date(s) Tested	10 Mar 2021 - 12 Mar 2021
ATTN : MR. JASMAN PINTO		Date Reported	16 Mar 2021
Sample Description	P2, South ETS Room, Chiller -3		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	Galleria Mall, GAMI	Sampling Date/Time	10.03.2021 / 10:55 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	6.8°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL PARAMETERS				
Total Bacterial Count*	APHA 9215 B -23rd Edition	CFU/ml	10,000	180
Total Coliforms*	APHA 9222 B -23rd Edition	CFU/100 ml	-	Zero
Fecal Coliforms*	APHA 9222 D -23rd Edition	CFU/100 ml	-	Zero
Pseudomonas aeruginosa*	APHA 9213 E -23rd Edition	CFU/100 ml	-	Zero
E.coli*	APHA 9222 I -23rd Edition	CFU/100 ml	-	Zero

The Analysis results denoted by (*) are part of the laboratory ENAS Accreditation to ISO/IEC 17025 : 2017.

Remarks	The sample meets DM Water Systems quality (2010) specifications for Cooling Water Systems with respect to the above tests only.
Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, DM: Dubai Municipality, NP: Not Provided, NA: Not Applicable, WI: Work Instruction
Test method deviation	None
Test performed by Emp#	103 & 14
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END OF REPORT



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING TEST REPORT

CUSTOMER: SERCO MIDDLE EAST	
Site Location: Galleria Mall (GAMI), Al Mariyah Island	Date: 10-03-2021
Sample Point: P2, North ETS Room, Chiller # 01	Sampled By: Client Representative

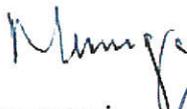
CHILLED WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 - 10.5	9.25
Conductivity, $\mu\text{s}/\text{cm}$	Max 3000	1765
TDS, ppm	Max 1750	1148
Iron, ppm as Fe	0 - 2.0	0.19
Treatment Residuals		
Nitrite, ppm	\gt 800	300
Dipslide	$<10^3$	ND

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

COMMENTS:	ACTION:
The pH level is satisfactory \Rightarrow	No action recommended.
The Conductivity & TDS levels satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within control limit \Rightarrow	No action recommended.
Corrosion Inhibitor levels are very low \Rightarrow	Please maintain the desired control limit

Reported By


Murugaraaj
Service Engineer





CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING TEST REPORT

CUSTOMER: SERCO MIDDLE EAST	
Site Location: Galleria Mall (GAMI), Al Mariyah Island	Date: 10-03-2021
Sample Point: P2, North ETS Room, Chiller # 02	Sampled By: Client Representative

CHILLED WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 - 10.5	9.12
Conductivity, $\mu\text{s/cm}$	Max 3000	1795
TDS, ppm	Max 1750	1166
Iron, ppm as Fe	0 - 2.0	0.34
Treatment Residuals		
Nitrite, ppm	\gt 800	370
Dipslide	$<10^3$	ND

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

COMMENTS:	ACTION:
The pH level is satisfactory \Rightarrow	No action recommended.
The Conductivity levels satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within control limit \Rightarrow	No action recommended.
Corrosion Inhibitor levels are low \Rightarrow	Please maintain the desired control limit

Reported By



Murugaraaj
Service Engineer



CLEANER WATER GREENER TOMORROW



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING TEST REPORT

CUSTOMER: SERCO MIDDLE EAST	
Site Location: Galleria Mall (GAMI), Al Mariyah Island	Date: 10-03-2021
Sample Point: P2, South East – Chiller # 01	Sampled By: Client Representative

CHILLED WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 – 10.5	9.18
Conductivity, $\mu\text{s}/\text{cm}$	Max 3000	1779
TDS, ppm	Max 1750	1159
Iron, ppm as Fe	0 – 2.0	0.26
Treatment Residuals		
Nitrite, ppm	\gt 800	350
Dipslide	$<10^3$	ND

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

COMMENTS:	ACTION:
The pH level is satisfactory \Rightarrow	No action recommended.
The Conductivity levels satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within control limit \Rightarrow	No action recommended.
Corrosion Inhibitor levels are low \Rightarrow	Please maintain the desired control limit

Reported By

Murugaraaj
Service Engineer



CLEANER WATER GREENER TOMORROW



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING TEST REPORT

CUSTOMER: SERCO MIDDLE EAST	
Site Location: Galleria Mall (GAMI), Al Mariyah Island	Date: 10-03-2021
Sample Point: P2, South East - Chiller # 03	Sampled By: Client Representative

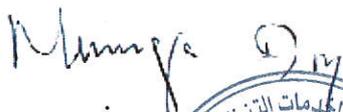
CHILLED WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 - 10.5	9.16
Conductivity, $\mu\text{s}/\text{cm}$	Max 3000	1781
TDS, ppm	Max 1750	1159
Iron, ppm as Fe	0 - 2.0	0.39
Treatment Residuals		
Nitrite, ppm	\gt 800	390
Dipslide	$<10^3$	ND

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

COMMENTS:	ACTION:
The pH level is satisfactory \Rightarrow	No action recommended.
The Conductivity levels satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within control limit \Rightarrow	No action recommended.
Corrosion Inhibitor levels are low \Rightarrow	Please maintain the desired control limit

Reported By


Murugaraaj
Service Engineer



CLEANER WATER GREENER TOMORROW