

TEST REPORT

Report No: QMTL/R-152477/2021

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-152477
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	SV 1, Chiller Water, ETS Room		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	Zayed University	Sampling Date/Time	10.03.2021 / 11:20 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	11.4°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	60
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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Reported By
ANILA GEORGE
LABORATORY MANAGER

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END OF REPORT

TEST REPORT

Report No: QMTL/R-152480/2021

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-152480
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	SV 2, ETS Room, Chiller water		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	Zayed University	Sampling Date/Time	10.03.2021 / 11:50 AM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	16.7°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	110
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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END OF REPORT

TEST REPORT

Report No: QMTL/R-152484/2021

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-152484
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	Chiller Water (Infrastructure) M1 Male Side		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	Zayed University	Sampling Date/Time	10.03.2021 / 2:00 PM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	7.5°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	<1
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-152486/2021

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-152486
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	Chiller Water (Infrastructure) Female Side		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	Zayed University	Sampling Date/Time	10.03.2021 / 3:15 PM
Sample Container	1x500ml PB	Sampling Point	Valve
Sample Receipt Temp	4°C	Sample Onsite Temp	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	6
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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END OF REPORT



CRYSTALLINE ENVIRONMENTAL SERVICES

CONSULTING TEST REPORT

CUSTOMER: SERCO MIDDLE EAST	
Site Location: Zayed University, Abu Dhabi	Date: 10-03-2021
Sample Point: SV1. ETS Room	Sample Collected By: Crystalline Rep

CHILLED WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 - 10.5	9.07
Conductivity, $\mu\text{s}/\text{cm}$	Max 3500	1579
TDS, ppm	--	1028
Iron, ppm as Fe	0 - 2.0	0.12
Treatment Residuals		
Nitrite, ppm	> 800	720
Dipslide	<10 ³	ND

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

COMMENTS:	ACTION:
The pH level is satisfactory \Rightarrow	No action recommended.
The Conductivity levels are satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within the control limits. \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: Zayed University, Abu Dhabi	Date: 10-03-2021
Sample Point: SV2. ETS Room	Sample Collected By: Crystalline Rep

CHILLED WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 - 10.5	9.32
Conductivity, $\mu\text{s}/\text{cm}$	Max 3500	1578
TDS, ppm	--	1025
Iron, ppm as Fe	0 - 2.0	0.23
Treatment Residuals		
Nitrite, ppm	> 800	760
Dipslide	<10 ³	ND

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

COMMENTS:	ACTION:
The pH level is satisfactory \Rightarrow	No action recommended.
The Conductivity levels are satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within the control limits. \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: Zayed University, Abu Dhabi	Date: 10-03-2021
Sample Point: Instruction Building, Male Side	Sample Collected By: Crystalline Rep

CHILLED WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 - 10.5	9.05
Conductivity, $\mu\text{s}/\text{cm}$	Max 3500	1571
TDS, ppm	--	1021
Iron, ppm as Fe	0 - 2.0	0.14
Treatment Residuals		
Nitrite, ppm	> 800	740
Dipslide	<10 ³	ND

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

COMMENTS:	ACTION:
The pH level is satisfactory \Rightarrow	No action recommended.
The Conductivity levels are satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within the control limits. \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: Zayed University, Abu Dhabi	Date: 10-03-2021
Sample Point: Instruction Building, female Side	Sample Collected By: Crystalline Rep

CHILLED WATER ANALYSIS

PARAMETER	CONTROL LIMITS	RESULTS
pH	9.0 - 10.5	9.03
Conductivity, $\mu\text{s}/\text{cm}$	Max 3500	1567
TDS, ppm	--	1018
Iron, ppm as Fe	0 - 2.0	0.16
Treatment Residuals		
Nitrite, ppm	> 800	770
Dipslide	<10 ³	ND

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

COMMENTS:	ACTION:
The pH level is satisfactory \Rightarrow	No action recommended.
The Conductivity levels are satisfactory \Rightarrow	No action recommended.
Dissolved iron levels are within the control limits. \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