

TEST REPORT

Report No: QMTL/R-115155/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-115155
ATTN : MR. JASMAN PINTO		Date Received	08 Aug 2020
		Date(s) Tested	08 Aug 2020 - 10 Aug 2020
		Date Reported	12 Aug 2020
Sample Description	North Side, Water Tank		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	NYUAD	Sampling Date/Time	08.08.2020 / 10:31 AM
Sample Container	1x500ml PB	Sampling Point	Tank
Sample Receipt Temp	4°C	Sample Onsite Temp	23.6°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL ANALYSIS				
E.coli	APHA 9222 H & I (23rd Edition)	CFU/100 ml	Zero	Zero
Fecal Coliforms	APHA 9222 D (23rd Edition)	CFU/100 ml	Zero	Zero
Pseudomonas aeruginosa	APHA 9213 E (23rd Edition)	CFU/100 ml	Zero	Zero
Total Bacterial Count	APHA 9215 B (23rd Edition)	CFU/ml	10@37°C	2
Total Coliforms	APHA 9222 B (23rd Edition)	CFU/100 ml	Zero	Zero

Remarks	The sample meets RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.
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Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, RSB: Regulation & Supervision Bureau, 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#	14 & 74
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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.

Reported By


ANILA GEORGE
LABORATORY MANAGER



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END OF REPORT

TEST REPORT

Report No: QMTL/R-115156/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-115156
		Date Received	08 Aug 2020
		Date(s) Tested	08 Aug 2020 - 10 Aug 2020
ATTN : MR. JASMAN PINTO		Date Reported	12 Aug 2020
Sample Description	North Side, Irrigation Water		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	NYUAD	Sampling Date/Time	08.08.2020 / 10:49 AM
Sample Container	1x500ml PB	Sampling Point	Tank
Sample Receipt Temp	4°C	Sample Onsite Temp	29.6°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL ANALYSIS				
E.coli	APHA 9222 H & I (23rd Edition)	CFU/100 ml	23	Zero
Fecal Coliforms	APHA 9222 D (23rd Edition)	CFU/100 ml	23	Zero
Pseudomonas aeruginosa	APHA 9213 E (23rd Edition)	CFU/100 ml	-	Zero
Total Bacterial Count	APHA 9215 B (23rd Edition)	CFU/ml	-	190
Total Coliforms	APHA 9222 B (23rd Edition)	CFU/100 ml	-	Zero

Remarks	The sample meets RSB Recycled Water and Biosolids Regulations 2018 requirements for irrigation water 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#	14 & 74
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Report prepared by Emp#	72
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END OF REPORT

TEST REPORT

Report No: QMTL/R-115157/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-115157
ATTN : MR. JASMAN PINTO		Date Received	08 Aug 2020
		Date(s) Tested	08 Aug 2020 - 10 Aug 2020
		Date Reported	12 Aug 2020
Sample Description	North Side, Drinking Fountain, NYUAD 00179881		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	NYUAD	Sampling Date/Time	08.08.2020 / 11:05 AM
Sample Container	1x500ml PB	Sampling Point	Drinking Water Fountain
Sample Receipt Temp	4°C	Sample Onsite Temp	23.3°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL ANALYSIS				
E.coli	APHA 9222 H & I (23rd Edition)	CFU/100 ml	Zero	Zero
Fecal Coliforms	APHA 9222 D (23rd Edition)	CFU/100 ml	Zero	Zero
Pseudomonas aeruginosa	APHA 9213 E (23rd Edition)	CFU/100 ml	Zero	Zero
Total Bacterial Count	APHA 9215 B (23rd Edition)	CFU/ml	10@37°C	6
Total Coliforms	APHA 9222 B (23rd Edition)	CFU/100 ml	Zero	Zero

Remarks	The sample meets RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.
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Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, RSB: Regulation & Supervision Bureau, 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#	14 & 74
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Report prepared by Emp#	72
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END OF REPORT

TEST REPORT

Report No: QMTL/R-115158/2020

CLIENT : CRYSTALLINE ENVIRONMENTAL SERVICES Abu Dhabi PO Box : 131463 United Arab Emirates		Sample ID	QMTL/S-115158
ATTN : MR. JASMAN PINTO		Date Received	08 Aug 2020
		Date(s) Tested	08 Aug 2020 - 10 Aug 2020
		Date Reported	12 Aug 2020
Sample Description	North Side, Janitor Closet		
Sample Type	Water	Sampling Method	QMTL-WI-15
Client Name/Project	NP	Sampled By	QMTL Representative
Location	NYUAD	Sampling Date/Time	08.08.2020 / 11:32 AM
Sample Container	1x500ml PB	Sampling Point	Tap
Sample Receipt Temp	4°C	Sample Onsite Temp	22.8°C
Sample Appearance	Clear	On-site Treatment	NA
Reference	NP		

TEST RESULTS

PARAMETERS	TEST METHODS	UNITS	GUIDELINES	RESULTS
MICROBIOLOGICAL ANALYSIS				
E.coli	APHA 9222 H & I (23rd Edition)	CFU/100 ml	Zero	Zero
Fecal Coliforms	APHA 9222 D (23rd Edition)	CFU/100 ml	Zero	Zero
Pseudomonas aeruginosa	APHA 9213 E (23rd Edition)	CFU/100 ml	Zero	Zero
Total Bacterial Count	APHA 9215 B (23rd Edition)	CFU/ml	10@37°C	<1
Total Coliforms	APHA 9222 B (23rd Edition)	CFU/100 ml	Zero	Zero

Remarks	The sample meets RSB Water Quality Regulations (4th Edition) January 2014 requirements for potable water with respect to the above tests only.
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Keywords	CFU: Colony Forming Unit, APHA: American Public Health Association, RSB: Regulation & Supervision Bureau, 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#	14 & 74
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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

CONSULTING SERVICE REPORT

CUSTOMER: SERCO – NEW YORK UNIVERSITY, ABU DHABI	To: Mr. Ratheesh Muttath Operations Engineer	DATE: 08-08-2020
CUSTOMER ID: 3003	Copy: SERCO – NYUAD	LAST VISIT: 12-07-2020

AMBIENT WATER ANALYSIS

PARAMETER	CONTROL LIMITS	North Side Water Tank			
pH at 25°C	7.0 – 9.2	8.48			
Conductivity at 25°C, µs/cm	1600 Max.	255			
Total Dissolved Solids (TDS)	1000 Max.	165			
Total Hardness, ppm as CaCO ₃	300 Max.	94			
Calcium Hardness, ppm as CaCO ₃	200 Max.	85			
Total Alkalinity	--	71			
Chloride, ppm as Cl ⁻	250 Max.	79			
Iron, ppm as Fe	0.2 Max.	<0.19			
Sulphate (SO ₄), mg/l	250 Max.	<13			
Copper (Cu), mg/l	1 Max.	<0.05			
Aluminum (Al), mg/l	0.2 Max.	<0.05			
Zinc (Zn), mg/l	5 Max.	<0.05			
Nitrate (NO ₃ ⁻), mg/l	50 Max.	<1.0			
Nitrite (NO ₂ ⁻), mg/l	30 Max.	<0.05			
Fluorides (F), mg/l	15 Max.	<0.05			
Potassium (K), mg/l	12 Max.	<5.0			

Treatment Residuals

Odor	Unobjectionable	ND			
Free Residual Chlorine as Cl	0.2 – 0.5	0.28			
Turbidity in NTU	4.0 Max	<1.0			

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

COMMENTS:

ACTION:

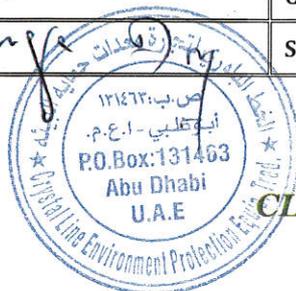
The pH and Conductivity/TDS are found satisfactory.	⇒	No action recommended.
Dissolved iron levels are within control limits.	⇒	No action recommended.
Chlorine levels found satisfactory.	⇒	No action recommended.

The dosing system is calibrated. Dosing pumps, low level sensor, dosing tubes are in good condition. There is no recirculation line/system for the water tank. Please check chlorine levels daily. Kindly inform Crystalline if levels fluctuate.

INVENTORY LEVELS

DOSAGE SCHEDULE

Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
Crystal SHC			--	
Service Engineer:	Murugaraaj		Client:	Mr. Ratheesh Muttath
Signature:			Signature:	



CONSULTING SERVICE REPORT

CUSTOMER: SERCO – NEW YORK UNIVERSITY, ABU DHABI	To: Mr. Ratheesh Muttath Operations Engineer	DATE: 08-08-2020
CUSTOMER ID: 3003	Copy: SERCO – NYUAD	LAST VISIT: 12-07-2020

AMBIENT WATER ANALYSIS

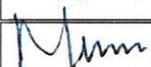
PARAMETER	CONTROL LIMITS	North Side Janitor Closed			
pH at 25°C	7.0 – 9.2	8.22			
Conductivity at 25°C, µs/cm	1600 Max.	224			
Total Dissolved Solids (TDS)	1000 Max.	145			
Total Hardness, ppm as CaCO ₃	300 Max.	88			
Calcium Hardness, ppm as CaCO ₃	200 Max.	75			
Total Alkalinity	--	61			
Chloride, ppm as Cl ⁻	250 Max.	67			
Iron, ppm as Fe	0.2 Max.	<0.14			
Sulphate (SO ₄), mg/l	250 Max.	<11			
Copper (Cu), mg/l	1 Max.	<0.05			
Aluminum (Al), mg/l	0.2 Max.	<0.05			
Zinc (Zn), mg/l	5 Max.	<0.05			
Nitrate (NO ₃ ⁻), mg/l	50 Max.	<1.0			
Nitrite (NO ₂ ⁻), mg/l	30 Max.	<0.05			
Fluorides (F), mg/l	15 Max.	<0.05			
Potassium (K), mg/l	12 Max.	<5.0			

Treatment Residuals

Odor	Unobjectionable	ND			
Free Residual Chlorine as Cl	0.2 – 0.5	0.23			
Turbidity in NTU	4.0 Max	<1.0			

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

COMMENTS:	ACTION:
The pH and Conductivity/TDS are found satisfactory. ⇨	No action recommended.
Dissolved iron levels are within control limits. ⇨	No action recommended.
Chlorine levels found satisfactory. ⇨	No action recommended.

INVENTORY LEVELS			DOSAGE SCHEDULE	
Chemical	Quantity	Chemical	Present Dosage	Revised Dosage
Crystal SHC			--	
Service Engineer:	Murugaraaj		Client:	Mr. Ratheesh Muttath
Signature:			Signature:	

