



ANALYTICAL REPORT

DB16-10922 R0

Waterclub

Prepared for

COLLECTOR CONSULTING LLC FZ

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CLIENT DETAILS

Client COLLECTOR CONSULTING LLC FZ

Address P.O. Box: 390549,
Dubai Marina,
Dubai

Contact Omar Chappuis

Telephone 971 509278476

Facsimile

Email omar@collector-consulting.com

Project Waterclub

Order n° SGS/FML/331-16/2.8.16

Matrix/samples Water(2)

LABORATORY DETAILS

Manager Smitha Abraham

Laboratory SGS Dubai Environmental Laboratory

Address Blue Shed Warehouse TC-3
P.O.Box: 18556, Dubai,
Jebel Ali Free Zone. UAE

Telephone +971-4-887-01-77 Ext. 114

Fax +971-4-887-63-76

Email smitha.abraham@sgs.com

SGS Reference DB16-10922

Received 02/08/2016

Approved 16/08/2016

Analysis Started 15/08/2016

Analysis Completed 15/08/2016

Report n° DB16-10922 R0

Date Reported 16/08/2016

COMMENTS

Whilst SGS laboratories conform to ISO/IEC 17025 standards, results of analysis in this report fall outside of the current scope accreditation

SIGNATORIES



Smitha Abraham
Laboratory Manager



ANALYTICAL REPORT

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RESULTS

	Sample n°	DB16-10922.001	DB16-10922.002
Sample Name		Normal Water	Warm Water
Sample Location		Water from Water	Water from Water
		Club	Club
Sample Matrix		Water	Water
Sampled By		Customer	Customer
Sample Date		02/08/2016	02/08/2016

Parameter	Units	RL	Result	Result
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Appearance [Visual]

Appearance	---	1	colorless liquid	colorless liquid
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Organoleptic [Organoleptic]

Odour	---	1	odorless	odorless
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[APHA 4500-H+ B, 21st Edition 2005]

pH@25 °C	---	0.1	7.2	7.2
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Conductivity [APHA 2510 B, 21st Edition 2005]

Electrical Conductivity	µS/cm	1	385	379
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Alkalinity [APHA 2320 B, 21st Edition 2005]

Alkalinity	mg CaCO ₃ /L	1	44	44
Carbonate alkalinity	mg CaCO ₃ /L	1	<1	<1
Bicarbonate alkalinity	mg CaCO ₃ /L	1	44	44

Calcium Hardness [APHA 3500-Ca B, 21st Edition 2005]

Calcium	mg CaCO ₃ /L	1	16	16
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Magnesium Hardness [APHA 3500-Mg B, 21st Edition 2005]

Magnesium	mg CaCO ₃ /L	1	5	5
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Sodium [APHA 3500-Na B, 21st Edition 2005]

Sodium	mg/L	1	39	36
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Potassium [APHA 3500-K B, 21st Edition 2005]

Potassium	mg/L	1	1	1
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Total Hardness as CaCO₃ [APHA 2340 C, 21st Edition 2005]

Total Hardness as CaCO ₃	mg/L	1	63	61
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Total Dissolved Solids [APHA 2540 C, 21st Edition 2005]

Total Dissolved Solids	mg/L	5	198	191
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Total Suspended Solids [APHA 2540 D, 21st Edition 2005]

Total Suspended Solids	mg/L	5	<5	<5
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Anions by Ion Chromatography [APHA 4110 B, 21st Edition 2005]

Fluoride	mg/L	0.04	<0.04	<0.04
Chloride	mg/L	0.2	66.1	64.6
Sulphate	mg/L	0.2	9.0	9.0

Metals in Water [Direct Analysis + EPA200.7 Rev 05, January 2001]

Chromium	mg/L	0.005	<0.005	<0.005
Copper	mg/L	0.01	0.03	0.03
Iron	mg/L	0.01	<0.01	<0.01
Lead	mg/L	0.02	<0.02	<0.02
Manganese	mg/L	0.005	<0.005	<0.005
Zinc	mg/L	0.01	0.03	0.03

Non Carbonate Hardness

RESULTS

	Sample n°	DB16-10922.001	DB16-10922.002
	Sample Name	Normal Water	Warm Water
	Sample Location	Water from Water Club	Water from Water Club
	Sample Matrix	Water	Water
	Sampled By	Customer	Customer
	Sample Date	02/08/2016	02/08/2016

Parameter	Units	RL	Result	Result
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Non Carbonate Hardness continued

Non Carbonate Hardness	mg/L	-	18.76	16.74
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QC SUMMARY

MB blank results are compared to the Limit of Reporting

LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.

DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: the absolute difference of the two results divided by the average of the two results as a percentage. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

LB1620613

pH in water [APHA 4500-H+ B, 21st Edition 2005]

Parameter	QC Reference	Units	RL	DUP %RPD	LCS %Recovery
pH@25 °C	LB1620613	---	0.10	0%	100%

LB1620614

Conductivity [APHA 2510 B, 21st Edition 2005]

Parameter	QC Reference	Units	RL	MB	DUP %RPD	LCS %Recovery
Electrical Conductivity	LB1620614	µS/cm	1.0	<1	0%	100%

LB1620616

Calcium Hardness [APHA 3500-Ca B, 21st Edition 2005]

Parameter	QC Reference	Units	RL	MB	DUP %RPD
Calcium	LB1620616	mg CaCO	1.0	<1	0%

LB1620618

Magnesium Hardness [APHA 3500-Mg B, 21st Edition 2005]

Parameter	QC Reference	Units	RL	MB	DUP %RPD
Magnesium	LB1620618	mg CaCO	1.0	<1	0%

LB1620619

Sodium [APHA 3500-Na B, 21st Edition 2005]

Parameter	QC Reference	Units	RL	MB	DUP %RPD	LCS %Recovery
Sodium	LB1620619	mg/L	1.0	<1	0%	100%

LB1620620

Potassium [APHA 3500-K B, 21st Edition 2005]

Parameter	QC Reference	Units	RL	MB	DUP %RPD	LCS %Recovery
Potassium	LB1620620	mg/L	1.0	<1	0%	100%

QC SUMMARY

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DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: the absolute difference of the two results divided by the average of the two results as a percentage. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

LB1620621

Total Hardness as CaCO₃ [APHA 2340 C, 21st Edition 2005]

Parameter	QC Reference	Units	RL	MB	DUP %RPD
Total Hardness as CaCO ₃	LB1620621	mg/L	1.0	<1	0%

LB1620624

Total Suspended Solids [APHA 2540 D, 21st Edition 2005]

Parameter	QC Reference	Units	RL	MB	DUP %RPD
Total Suspended Solids	LB1620624	mg/L	5.0	<5	0%

LB1620625

Alkalinity [APHA 2320 B, 21st Edition 2005]

Parameter	QC Reference	Units	RL	MB	DUP %RPD
Alkalinity	LB1620625	mg CaCO	1.0	<1	0%
Carbonate alkalinity	LB1620625	mg CaCO	1.0	<1	0%
Bicarbonate alkalinity	LB1620625	mg CaCO	1.0	<1	0%

LB1620626

Anions by Ion Chromatography [APHA 4110 B, 21st Edition 2005]

Parameter	QC Reference	Units	RL	MB	DUP %RPD	LCS %Recovery
Fluoride	LB1620626	mg/L	0.040	<0.04	0%	93%
Chloride	LB1620626	mg/L	0.20	<0.2	0%	97%
Sulphate	LB1620626	mg/L	0.20	<0.2	0%	99%

LB1620627

Metals in Water [Direct Analysis + EPA200.7 Rev 05, January 2001]

Parameter	QC Reference	Units	RL	DUP %RPD	LCS %Recovery
Chromium	LB1620627	mg/L	0.0050	0%	91%
Copper	LB1620627	mg/L	0.010	2%	90%
Iron	LB1620627	mg/L	0.010	0%	87%
Lead	LB1620627	mg/L	0.020	0%	88%
Manganese	LB1620627	mg/L	0.0050	0%	90%
Zinc	LB1620627	mg/L	0.010	32%	94%



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QC SUMMARY

MB blank results are compared to the Limit of Reporting

LCS and MS spike recoveries are measured as the percentage of analyte recovered from the sample compared the the amount of analyte spiked into the sample.

DUP and MSD relative percent differences are measured against their original counterpart samples according to the formula: the absolute difference of the two results divided by the average of the two results as a percentage. Where the DUP RPD is 'NA' , the results are less than the LOR and thus the RPD is not applicable.

LB1620633

Total Dissolved Solids [APHA 2540 C, 21st Edition 2005]

Parameter	QC Reference	Units	RL	MB	DUP %RPD	LCS %Recovery
Total Dissolved Solids	LB1620633	mg/L	5.0	<5	1%	92%

LEGEND

FOOTNOTES

^	Performed by external SGS laboratory.	IS	Insufficient sample for analysis.
^^	Performed by outside laboratory.	LNR	Sample listed, but not received.
RL	Reporting Limit	NA	The sample was not analysed for this analyte
↑	Raised Limit of Reporting	NVL	Result to be validated
↓	Lowered Limit of Reporting	TBA	Parameter not yet analysed

Samples analysed as received.

Solid samples expressed on a dry weight basis.

The QC criteria are subject to internal review according to the SGS QAQC plan and may be provided on request

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