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CERTIFICATE OF ANALYSIS

Client:Pathcare LaboratoriesReport No:WT2020-00373Delivery Date:20/01/2020Address:N/ASamples:8Delivery Time:10:25:00Phone:N/ASample Type:WaterOrder No/Ref:N/A

Contact : Anél Schreuder

 $Email \qquad \vdots \quad an el. schreuder @bemlab.co.za, admin @bemlab.co.za, gail. samuels @bemlab.co.za$

Sample Information				
Lab Number		WT20-00821	WT20-00822	WT20-00823
Sampling Date		2020/01/16	2020/01/16	2020/01/16
Sampling Time		10:00	10:00	10:00
Sample Temperature °C:		8.6	8.5	8.9
Sample ID:		728178400	728178401	728178402
Chemical Determinands - Micro Determinands	Unit		Result	
Boron as B(Total)	mg/L	<0.08	0.08	<0.08
Iron as Fe (Total)	mg/L	0.93	0.90	1.4
Manganese as Mn(Total)	mg/L	0.11	0.10	0.25
Chemistry - Macro Determinands	Unit		Result	
Chloride as Cl (Titrando)	mg/L	62.0	61.0	60.0
Sodium as Na	mg/L	31.9	32.3	31.7
Sulphate as SO4	mg/L	9.5	11.3	9.3
General Chemistry	Unit		Result	
Alkalinity as CaCO3 (Titrando)		37.0	36.0	34.0
Calcium as Ca	mg/L	8.2	8.3	7.3
Magnesium as Mg	mg/L	6.4	6.5	6.2
Potassium as K	mg/L	3.3	3.1	2.9
Langelier Index *		-2.0	-2.0	-2.1
Sodium Adsorption Ratio (SAR)		2.0	2.0	2.1
Physical & Aesthetic Determinands	Unit	<u> </u>	Result	<u> </u>
Total Dissolved Solids (Calc) *	mg/L	183	186	179
pH (Titrando Method) (20°C)	pH Units	7.1	7.1	7.1
Electrical Conductivity (Titrando)	mS/m (25°C)	28.1	28.7	27.5

Report NO: WT2020-00373 Date reported: 31-01-2020 Page 1 of 4

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CERTIFICATE OF ANALYSIS

Client:Pathcare LaboratoriesReport No:WT2020-00373Delivery Date:20/01/2020Address:N/ASamples:8Delivery Time:10:25:00Phone:N/ASample Type:WaterOrder No/Ref:N/A

Contact : Anél Schreuder

 $Email \qquad \vdots \quad an el. schreuder @bemlab.co.za, admin @bemlab.co.za, gail. samuels @bemlab.co.za$

Sample Information				
Lab Number		WT20-00824	WT20-00825	WT20-00826
Sampling Date		2020/01/16	2020/01/16	2020/01/16
Sampling Time		10:00	10:00	10:00
Sample Temperature °C:		8.0	7.9	8.0
Sample ID:		728178403	728178404	728178405
Chemical Determinands - Micro Determinands	Unit	<u>'</u>	Result	
Boron as B(Total)	mg/L	0.25	0.09	<0.08
Iron as Fe (Total)	mg/L	1.2	1.0	1.1
Manganese as Mn(Total)	mg/L	0.14	0.14	0.17
Chemistry - Macro Determinands	Unit		Result	
Chloride as CI (Titrando)	mg/L	62.0	59.0	62.0
Sodium as Na	mg/L	31.5	31.2	31.1
Sulphate as SO4	mg/L	10.8	23.2	10.3
General Chemistry	Unit		Result	
Alkalinity as CaCO3 (Titrando)		31.0	17.0	32.0
Calcium as Ca	mg/L	7.3	7.5	7.3
Magnesium as Mg	mg/L	6.2	6.4	6.3
Potassium as K	mg/L	3.5	2.9	2.8
Langelier Index *		-2.1	-2.5	-1.8
Sodium Adsorption Ratio (SAR)		2.1	2.0	2.0
Physical & Aesthetic Determinands	Unit		Result	
Total Dissolved Solids (Calc) *	mg/L	178	188	179
pH (Titrando Method) (20°C)	pH Units	7.1	7.0	7.4
Electrical Conductivity (Titrando)	mS/m (25°C)	27.4	29.0	27.5

Report NO: WT2020-00373 Date reported: 31-01-2020 Page 2 of 4

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CERTIFICATE OF ANALYSIS

Client : Pathcare Laboratories Report No: WT2020-00373 **Delivery Date** 20/01/2020 : N/A Address Samples: 8 **Delivery Time** 10:25:00 : N/A Sample Type Order No/Ref Phone : Water : N/A

Contact : Anél Schreuder

 $Email \qquad \vdots \quad an el. schreuder @bemlab.co.za, admin @bemlab.co.za, gail. samuels @bemlab.co.za$

Sample Information				
Lab Number		WT20-00827	WT20-00828	
Sampling Date		2020/01/16	2020/01/16	
Sampling Time		10:00	10:00	
Sample Temperature °C:		5.6	5.8	
Sample ID:		728178406	728178407	
Chemical Determinands - Micro Determinands	Unit		Result	
Boron as B(Total)	mg/L	<0.08	<0.08	
Iron as Fe (Total)	mg/L	1.2	1.0	
Manganese as Mn(Total)	mg/L	0.17	0.22	
Chemistry - Macro Determinands	Unit		Result	
Chloride as Cl (Titrando)	mg/L	61.0	57.0	
Sodium as Na	mg/L	31.0	31.1	
Sulphate as SO4	mg/L	9.5	9.7	
General Chemistry	Unit		Result	
Alkalinity as CaCO3 (Titrando)		36.0	34.0	
Calcium as Ca	mg/L	7.2	7.0	
Magnesium as Mg	mg/L	6.2	6.2	
Potassium as K	mg/L	2.8	2.7	
Langelier Index *		-1.9	-2.2	
Sodium Adsorption Ratio (SAR)		2.0	2.1	
Physical & Aesthetic Determinands	Unit		Result	
Total Dissolved Solids (Calc) *	mg/L	178	182	
pH (Titrando Method) (20°C)	pH Units	7.3	7.1	
Electrical Conductivity (Titrando)	mS/m (25°C)	27.4	28.0	

Report NO: WT2020-00373 Date reported: 31-01-2020 Page 3 of 4

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CERTIFICATE OF ANALYSIS

Client : Pathcare Laboratories Report No : WT2020-00373 Delivery Date : 20/01/2020

Address : N/A Samples : 8 Delivery Time : 10:25:00

Phone : N/A Sample Type : Water Order No/Ref : N/A

Contact : Anél Schreuder

Email : anel.schreuder@bemlab.co.za,admin@bemlab.co.za,gail.samuels@bemlab.co.za

Comments

GAMTOOS IRRIGATION BOARD

728178400- B- KANAAL

728178401- D- KANAAL

728178402- KOK SE PLAAS

728178403- K- KANAAL

728178404- LYN 106

728178405- DUPLEX 728178406- PATENSIE

Terms and Conditions

The reported results may be applied only to samples received. Any recommendations included with this report are based on the assumption that the samples were representative of the source from which they were taken. To ensure sample integrity, samples are stored only for seven days after release of the report. Thereafter it is disposed of and a fresh sample will be required if additional analyses are requested. Client supplied information; client details, sample reference, the date and time of sampling, the sampler, and transportation of the sample to the testing laboratory. The information supplied by the client (or lack thereof) may affect the validity of the results. Results marked with "Not SANAS Accredited" in this report are not included in the SANAS Schedule of Accreditation for this laboratory. These results relate to the items tested. This test report shall not be reproduced except in full, without written approval of the laboratory. Uncertainty of Measurement and method references

Sample condition:

Samples for analysis must be kept cool (<10°C) and reach the laboratory within 24 hours of sampling. Chemical parameters that can be affected by exceeded temperature and sampling times includes: Acidity, Alkalinity, BOD, CO2, Chlorine, Chlorophyll, Cyanide, Chromium VI, Dissolved Oxygen, Odor, pH & Turbidity. The effect on the microorganisms is unknown, treat microbiological results with reserve.

Additional Information including: Testing date & time for all analysis are available on request

* - Not SANAS Accredited

** - Outstanding

*** - Insufficient Sample

- Outsourced

Andrew Pascall
Technical Signatory
(Soil, Plant ,Fruit and
Water)

Report NO: WT2020-00373 Date reported: 31-01-2020 Page 4 of 4