

# REGEN WATERS

LABORATORY • LABORATORIUM

CK. 89/14418/23

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P.O. Box / Posbus 8328  
WITBANK 1035  
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## CERTIFICATE OF ANALYSIS

### TRIHALOMETHANE COMPOUNDS (THM)

SAMPLE INFORMATION		LAB NUMBER	A172.D
DATE RECEIVED	27-Sep-13	DATE ANALYZED	10-Oct-13
CLIENT	<b>Steve-Tswete</b>	MATRIX	Water
SAMPLE NAME	<b>Krugerdam Raw</b>		
CONTAINER	Plastic		
INSTRUMENT	Agilent 7890A GC/MS, Headspace 7697A, Solid Phase Extraction		

COMPOUND	CONCENTRATION	UNITS
Chloroform	<10	µg/liter
Trichloroethene	<10	µg/liter
Bromodichloromethane	<10	µg/liter
Dibromochloromethane	<10	µg/liter
Bromoform	<10	µg/liter

Samples stored at 5°C after acceptance by Regen Waters.

This report is only applicable to the sample provided for testing.

Regen Waters cannot be held accountable for any errors that might have been caused by improper sampling, handling or storage of samples prior to acceptance.

## Trihalomethane Result Interpretation

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According to the South African National Standards 241-1: Ed1 2011 the limits for trihalomethane content in drinking water are:

Compound	Concentration	Units
Chloroform	<300	µg/liter
Bromoform	<100	µg/liter
Dibromochloromethane	<100	µg/liter
Bromodichloromethane	<60	µg/liter
Trichloroethene*	<20	µg/liter

\*Standard from the World Health Organization drinking water standard 2011 (Not technically a THM but is a frequently requested compound in conjunction with THM analysis.)

Trihalomethanes in potable water is a by-product of disinfection using chlorine and other disinfectants. The concentration of trihalomethanes in potable water needs to be monitored, as long term consumption of high concentrations can lead to chronic ailments.

The sample submitted Steve-Tswete Krugerdam Raw complies with the standards for trihalomethane content in drinking water.

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P.L.G UYS (M.D)

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## CERTIFICATE OF ANALYSIS

### SCREENING FOR PHENOLIC COMPOUNDS

#### SAMPLE INFORMATION

DATE RECEIVED	27-Sep-13	LAB NUMBER	A172.D
CLIENT	<b>Steve-Tswete</b>	DATE ANALYZED	10-Oct-13
SAMPLE NAME	<b>Krugerdam Raw</b>	MATRIX	Water
CONTAINER	Plastic	DILUTION FACTOR	No Dilution
INSTRUMENT	Agilent 7890A GC/MS, Headspace 7697A, Solid Phase Microextraction		

COMPOUND	CONCENTRATION	UNITS
phenol	<10	µg/liter
2-chlorophenol	<10	µg/liter
2-methylphenol	<10	µg/liter
3+4-methylphenol	<10	µg/liter
2-nitrophenol	<10	µg/liter
2,4-dimethylphenol	<10	µg/liter
2,4-dichlorophenol	<10	µg/liter
2,6-dichlorophenol	<10	µg/liter
4-chloro-3-methylphenol	<10	µg/liter
2,3,5-trichlorophenol	<10	µg/liter
2,4,6-trichlorophenol	<10	µg/liter
2,4,5-trichlorophenol	<10	µg/liter
2,3,4-trichlorophenol	<10	µg/liter
2,3,6-trichlorophenol	<10	µg/liter
2,3,4,6-tetrachlorophenol	<10	µg/liter
2,3,5,6-tetrachlorophenol	<10	µg/liter
3,4,5-trichlorophenol	<10	µg/liter
pentachlorophenol	<10	µg/liter
DINOSEB	<10	µg/liter
<b>TOTAL IDENTIFIED</b>	<b>&lt;10</b>	<b>µg/liter</b>

Samples stored at 5°C after acceptance by Regen Waters.

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Results marked "\*" - concentration outside of calibration range, estimate only.

P.L.G. UYS (M.D)

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## CERTIFICATE OF ANALYSIS

### TRIHALOMETHANE COMPOUNDS (THM)

SAMPLE INFORMATION		LAB NUMBER	F132.D
DATE RECEIVED	27-Sep-13	DATE ANALYZED	10-Oct-13
CLIENT	<b>Steve-Tswete</b>	MATRIX	Water
SAMPLE NAME	Hendrina Potable Raw		
CONTAINER	Plastic		
INSTRUMENT	Agilent 7890A GC/MS, Headspace 7697A, Solid Phase Extraction		

COMPOUND	CONCENTRATION	UNITS
Chloroform	<10	µg/liter
Trichloroethene	<10	µg/liter
Bromodichloromethane	<10	µg/liter
Dibromochloromethane	<10	µg/liter
Bromoform	<10	µg/liter

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## Trihalomethane Result Interpretation

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According to the South African National Standards 241-1: Ed1 2011 the limits for trihalomethane content in drinking water are:

Compound	Concentration	Units
Chloroform	<300	µg/liter
Bromoform	<100	µg/liter
Dibromochloromethane	<100	µg/liter
Bromodichloromethane	<60	µg/liter
Trichloroethene*	<20	µg/liter

\*Standard from the World Health Organization drinking water standard 2011 (Not technically a THM but is a frequently requested compound in conjunction with THM analysis.)

Trihalomethanes in potable water is a by-product of disinfection using chlorine and other disinfectants. The concentration of trihalomethanes in potable water needs to be monitored, as long term consumption of high concentrations can lead to chronic ailments.

The sample submitted Steve-Tswete Hendrina Potable Raw complies with the standards for trihalomethane content in drinking water.

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P.L.G UYS (M.D)

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## CERTIFICATE OF ANALYSIS

### SCREENING FOR PHENOLIC COMPOUNDS

#### SAMPLE INFORMATION

DATE RECEIVED	27-Sep-13	LAB NUMBER	F132.D
CLIENT	<b>Steve-Tswete</b>	DATE ANALYZED	10-Oct-13
SAMPLE NAME	<b>Hendrina Potable</b>	MATRIX	Water
CONTAINER	Plastic	DILUTION FACTOR	No Dilution
INSTRUMENT	Agilent 7890A GC/MS, Headspace 7697A, Solid Phase Microextraction		

COMPOUND	CONCENTRATION	UNITS
phenol	<10	µg/liter
2-chlorophenol	<10	µg/liter
2-methylphenol	<10	µg/liter
3+4-methylphenol	<10	µg/liter
2-nitrophenol	<10	µg/liter
2,4-dimethylphenol	<10	µg/liter
2,4-dichlorophenol	<10	µg/liter
2,6-dichlorophenol	<10	µg/liter
4-chloro-3-methylphenol	<10	µg/liter
2,3,5-trichlorophenol	<10	µg/liter
2,4,6-trichlorophenol	<10	µg/liter
2,4,5-trichlorophenol	<10	µg/liter
2,3,4-trichlorophenol	<10	µg/liter
2,3,6-trichlorophenol	<10	µg/liter
2,3,4,6-tetrachlorophenol	<10	µg/liter
2,3,5,6-tetrachlorophenol	<10	µg/liter
3,4,5-trichlorophenol	<10	µg/liter
pentachlorophenol	<10	µg/liter
DINOSEB	<10	µg/liter
<b>TOTAL IDENTIFIED</b>	<b>&lt;10</b>	<b>µg/liter</b>

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Results marked "\*" - concentration outside of calibration range, estimate only.

P.L.G. UYS (M.D)

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## CERTIFICATE OF ANALYSIS

### TRIHALOMETHANE COMPOUNDS (THM)

SAMPLE INFORMATION		LAB NUMBER	F134.D
DATE RECEIVED	27-Sep-13	DATE ANALYZED	10-Oct-13
CLIENT	<b>Steve-Tswete</b>	MATRIX	Water
SAMPLE NAME	<b>Presidentsrus Raw</b>		
CONTAINER	Plastic		
INSTRUMENT	Agilent 7890A GC/MS, Headspace 7697A, Solid Phase Extraction		

COMPOUND	CONCENTRATION	UNITS
Chloroform	<10	µg/liter
Trichloroethene	<10	µg/liter
Bromodichloromethane	<10	µg/liter
Dibromochloromethane	<10	µg/liter
Bromoform	<10	µg/liter

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## Trihalomethane Result Interpretation

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According to the South African National Standards 241-1: Ed1 2011 the limits for trihalomethane content in drinking water are:

Compound	Concentration	Units
Chloroform	<300	µg/liter
Bromoform	<100	µg/liter
Dibromochloromethane	<100	µg/liter
Bromodichloromethane	<60	µg/liter
Trichloroethene*	<20	µg/liter

\*Standard from the World Health Organization drinking water standard 2011 (Not technically a THM but is a frequently requested compound in conjunction with THM analysis.)

Trihalomethanes in potable water is a by-product of disinfection using chlorine and other disinfectants. The concentration of trihalomethanes in potable water needs to be monitored, as long term consumption of high concentrations can lead to chronic ailments.

The sample submitted Steve-Tswete Presidentsrus Raw complies with the standards for trihalomethane content in drinking water.

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P.L.G UYS (M.D)



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## CERTIFICATE OF ANALYSIS

### SCREENING FOR PHENOLIC COMPOUNDS

#### SAMPLE INFORMATION

DATE RECEIVED	27-Sep-13	LAB NUMBER	F134.D
CLIENT	<b>Steve-Tswete</b>	DATE ANALYZED	10-Oct-13
SAMPLE NAME	<b>Presidentsrus Raw</b>	MATRIX	Water
CONTAINER	Plastic	DILUTION FACTOR	No Dilution
INSTRUMENT	Agilent 7890A GC/MS, Headspace 7697A, Solid Phase Microextraction		

COMPOUND	CONCENTRATION	UNITS
phenol	<10	µg/liter
2-chlorophenol	<10	µg/liter
2-methylphenol	<10	µg/liter
3+4-methylphenol	<10	µg/liter
2-nitrophenol	<10	µg/liter
2,4-dimethylphenol	<10	µg/liter
2,4-dichlorophenol	<10	µg/liter
2,6-dichlorophenol	<10	µg/liter
4-chloro-3-methylphenol	<10	µg/liter
2,3,5-trichlorophenol	<10	µg/liter
2,4,6-trichlorophenol	<10	µg/liter
2,4,5-trichlorophenol	<10	µg/liter
2,3,4-trichlorophenol	<10	µg/liter
2,3,6-trichlorophenol	<10	µg/liter
2,3,4,6-tetrachlorophenol	<10	µg/liter
2,3,5,6-tetrachlorophenol	<10	µg/liter
3,4,5-trichlorophenol	<10	µg/liter
pentachlorophenol	<10	µg/liter
DINOSEB	<10	µg/liter
<b>TOTAL IDENTIFIED</b>	<b>&lt;10</b>	<b>µg/liter</b>

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## CERTIFICATE OF ANALYSIS

### TRIHALOMETHANE COMPOUNDS (THM)

#### SAMPLE INFORMATION

		LAB NUMBER	F136.D
DATE RECEIVED	27-Sep-13	DATE ANALYZED	10-Oct-13
CLIENT	<b>Steve-Tswete</b>	MATRIX	Water
SAMPLE NAME	<b>Vaalbank Raw</b>		
CONTAINER	Plastic		
INSTRUMENT	Agilent 7890A GC/MS, Headspace 7697A, Solid Phase Extraction		

#### COMPOUND

#### CONCENTRATION

#### UNITS

Chloroform	<10	µg/liter
Trichloroethene	<10	µg/liter
Bromodichloromethane	<10	µg/liter
Dibromochloromethane	<10	µg/liter
Bromoform	<10	µg/liter

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## Trihalomethane Result Interpretation

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According to the South African National Standards 241-1: Ed1 2011 the limits for trihalomethane content in drinking water are:

Compound	Concentration	Units
Chloroform	<300	µg/liter
Bromoform	<100	µg/liter
Dibromochloromethane	<100	µg/liter
Bromodichloromethane	<60	µg/liter
Trichloroethene*	<20	µg/liter

\*Standard from the World Health Organization drinking water standard 2011 (Not technically a THM but is a frequently requested compound in conjunction with THM analysis.)

Trihalomethanes in potable water is a by-product of disinfection using chlorine and other disinfectants. The concentration of trihalomethanes in potable water needs to be monitored, as long term consumption of high concentrations can lead to chronic ailments.

The sample submitted Steve-Tswete Vaalbank Raw complies with the standards for trihalomethane content in drinking water.

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P.L.G UYS (M.D)

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### SCREENING FOR PHENOLIC COMPOUNDS

#### SAMPLE INFORMATION

DATE RECEIVED	27-Sep-13	LAB NUMBER	F136.D
CLIENT	<b>Steve-Tswete</b>	DATE ANALYZED	10-Oct-13
SAMPLE NAME	<b>Vaalbank Raw</b>	MATRIX	Water
CONTAINER	Plastic	DILUTION FACTOR	No Dilution
INSTRUMENT	Agilent 7890A GC/MS, Headspace 7697A, Solid Phase Microextraction		

COMPOUND	CONCENTRATION	UNITS
phenol	<10	µg/liter
2-chlorophenol	<10	µg/liter
2-methylphenol	<10	µg/liter
3+4-methylphenol	<10	µg/liter
2-nitrophenol	<10	µg/liter
2,4-dimethylphenol	<10	µg/liter
2,4-dichlorophenol	<10	µg/liter
2,6-dichlorophenol	<10	µg/liter
4-chloro-3-methylphenol	<10	µg/liter
2,3,5-trichlorophenol	<10	µg/liter
2,4,6-trichlorophenol	<10	µg/liter
2,4,5-trichlorophenol	<10	µg/liter
2,3,4-trichlorophenol	<10	µg/liter
2,3,6-trichlorophenol	<10	µg/liter
2,3,4,6-tetrachlorophenol	<10	µg/liter
2,3,5,6-tetrachlorophenol	<10	µg/liter
3,4,5-trichlorophenol	<10	µg/liter
pentachlorophenol	<10	µg/liter
DINOSEB	<10	µg/liter
<b>TOTAL IDENTIFIED</b>	<b>&lt;10</b>	<b>µg/liter</b>

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