



WATER QUALITY DEPARTMENT
 10100 EAST JEFFERSON AVENUE
 DETROIT, MICHIGAN 48214
 PHONE: 313-926-8102 / 313-926-8127

Springwells Water Treatment Plant Mineral Report

Sample Date: 07/12/2016

Parameter	Formula	Units	Raw	Tap	MCL	Sec.Std	MDL
Turbidity		NTU	2.60	0.16	0.3/95% (1)		
Total Solids		mg/L	146	133		500	10
Total Dissolved Solids		mg/L	146	143		500	10
Aluminum	Al	mg/L	< 0.050	0.083		0.05-0.2	0.005
Iron	Fe	mg/L	0.053	< 0.050		0.3	0.005
Copper	Cu	mg/L	< 0.005	< 0.005	1.3 (AL)	1.0	0.005
Magnesium	Mg	mg/L	9.18	8.56			0.5
Calcium	Ca	mg/L	27.9	23.3			0.1
Sodium	Na	mg/L	4.00	4.25		20 (2)	0.1
Potassium	K	mg/L	0.99	0.93			0.1
Manganese	Mn	mg/L	0.003	0.006		0.05	0.002
Lead	Pb	mg/L	< 0.002	< 0.002	0.015 (AL)		0.002
Zinc	Zn	mg/L	< 0.010	0.04		5	0.1
Silica	SiO ₂	mg/L	0.8	0.9			0.4
Sulfate	SO ₄ ²⁻	mg/L	17.5	24.0		250	
Chloride	Cl ⁻	mg/L	8.0	11.5		250	5
Phosphorus	P	mg/L	< 0.05	0.64			0.05
Free Carbon Dioxide	CO ₂	mg/L	5.8	5.8			
Total Hardness (3), (4), (5)		mg/L	98	103			
Total Alkalinity (3)		mg/L	84	82			
Carbonate Alkalinity (3)		mg/L	0	0			
Bi-Carbonate Alkalinity (3)		mg/L	84	82			
Non-Carbonate Hardness (3)		mg/L	14	21			
Chemical Oxygen Demand		mg/L	3.6	2.4			2
Dissolved Oxygen		mg/L	9.2	9.6			
Nitrite Nitrogen	NO ₂ ⁻ -N	mg/L	< 0.1	< 0.1	1		0.1
Nitrate Nitrogen	NO ₃ ⁻ -N	mg/L	0.39	0.25	10		0.1
Fluoride	F ⁻	mg/L	0.19	0.70	4.0	2.0	0.5
pH			7.46	7.45	6.5-8.5	6.5-8.5	
Specific Conductance @ 25 °C.		micromhos	218	226			
Temperature		°C	25.0	24.0			

Legend	Notes:
MCL: Maximum Contaminant Level	(1) Turbidity must not exceed 0.3 NTU in 95% of samples in any month and always be < 1 NTU
Sec.Std: Secondary Standard	(2) EPA Guidance Level
NTU: Nephelometric Turbidity Unit	(3) As Calcium Carbonate
mg/L: Milligram Per Liter	mg/L is equivalent to part per million (ppm)
AL: Action Level	
MDL: Method Detection Limit	(4) By Titration
< : Less than	(5) Tap Water Hardness in Grains per Gallon 5.97 GPG
AE: Analytical Error	(6) Reported results are below the low calibration standard but above the instrument detection limit.
IV: Invalid Sample	

Analyst: Brian Brown Chemist-I Initial **B. B.** Date: 10/14/2016
 Reviewed By: Patrick Williford Chemist-II Initial **P. W.** Date: 10/14/2016

Great Lakes Water Authority