

MIAMI-DADE WATER & SEWER DEPARTMENT
ALEXANDER ORR JR. WATER TREATMENT PLANT LABORATORY – CERT. #E56720
6800 Southwest 87th Avenue, Miami, Florida 33173
Andy Toledo, Laboratory Division Chief, – Tel. (786) 552-4181
2019 TYPICAL AVERAGE ANALYSIS
ALEXANDER ORR WATER TREATMENT PLANT

PARAMETERS	EXPRESSED IN	MCL ^a	RAW WATER	FINISHED WATER
METALS				
Aluminum (as Al)	mg/L b2	0.2	0.0	0.0
Antimony (as Sb)	mg/L b	0.006	0.000	0.000
Arsenic (as As)	mg/L c	0.010	0.001	0.001
Barium (as Ba)	mg/L b	2	0	0
Beryllium (as Be)	mg/L b	0.004	0.000	0.000
Cadmium (as Cd)	mg/L b	0.005	0.000	0.000
Calcium (as Ca)	mg/L d		75	22
Chromium (as Cr)	mg/L b	0.1	0.0	0.0
Copper (as Cu)	mg/L c	1.0	0.0	0.0
Iron (as Fe)	mg/L b2	0.3	0.1	0.0
Lead (as Pb)	mg/L b	0.015	0.000	0.000
Magnesium (as Mg)	mg/L d		5	4
Manganese (as Mn)	mg/L b2	0.05	0.00	0.00
Mercury (as Hg)	mg/L b	0.002	0.000	0.000
Nickel (as Ni)	mg/L b	0.1	0.0	0.0
Potassium (as K)	mg/L d		3	3
Selenium (as Se)	mg/L b	0.05	0.00	0.00
Silver (as Ag)	mg/L b2	0.1	0.0	0.0
Sodium (as Na)	mg/L b	160	26	25
Thallium (as Tl)	mg/L b	0.002	0.000	0.000
Zinc (as Zn)	mg/L b2	5	0	0
ANIONS				
Bromide (as Br ⁻)	mg/L d		0.1	0.1
Chlorides (as Cl ⁻)	mg/L b2	250	41	45
Cyanides (as CN ⁻)	mg/L c	0.01	0.00	0.00
Fluoride (as F ⁻)	mg/L c	1.1	0.2	0.5
Nitrates (N)	mg/L b	10	0	0
Nitrites (as N)	mg/L b	1	0	0
Sulfates (as SO ₄ ²⁻)	mg/L b2	250	8	9
PHYSICAL & CHEMICAL PROPERTIES				
Alkalinity (as CaCO ₃)				
Phenolphthalein	mg/L d		0	6
Total	mg/L d		193	56
Ammonia (as NH ₃)	mg/L d		0.0	0.5
Carbon Dioxide	mg/L d		19	0
Chlorine Residual at Plant	mg/L c	f	0.0/0.0	0.1/3.4
Color	PCU b2	15	8	2

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Conductivity	umhos/cm d		517	281
Hardness (as CaCO ₃)				
Total	mg/L d		203	71 =
Non-carbonate	mg/L d		10	15
Oxygen, dissolved (as O ₂)	mg/L d		1.9	2.8
pH	pH c	≥ 6.5	7.3	9.1
Ortho Phosphate (as PO ₄ ³⁻)	mg/L d		0.0	0.1
Total Phosphate (as PO ₄ ³⁻)	mg/L d		0.0	0.2
Silica (as SiO ₂)	mg/L d		5.3	6.3
Surfactants (MBAS)	mg/L b2	0.5	0.0	0.0
Temperature	^o C d		26	25 ∞
Threshold Odor Number	TON b, g	3	NOD	NOD
Total Dissolved Solids	mg/L b2	500	228	144
Total Organic Carbon	mg/L d		4	3
Turbidity	NTU b	1.0	0.30	0.60
MICROBIOLOGY				
Cryptosporidium/Giardia	#/100L d, h		ND	-
Total Coliform	Present- P, b	e	-	A
ORGANICS				
Endrin	mg/L b	0.002	0.000	0.000
Lindane	mg/L b	0.0002	0.0000	0.0000
Methoxychlor	mg/L b	0.04	0.00	0.00
Toxaphene	mg/L b	0.003	0.000	0.000
2, 4, Dichlorophenoxyacetic Acid	mg/L b	0.07	0.00	0.00
2, 4, 5 – TP (Silvex)	mg/L b	0.05	0.00	0.00
Phenols	mg/L c	0.001	0.000	0.000
Total Trihalomethanes	mg/L b	0.080	0.000	0.036
VOLATILE ORGANICS				
Vinyl Chloride	mg/L b	0.001	0.000	0.000
Benzene	mg/L b	0.001	0.000	0.000
Carbon Tetrachloride	mg/L b	0.003	0.000	0.000
1, 2- Dichloroethane	mg/L b	0.003	0.000	0.000
Trichloroethylene	mg/L b	0.003	0.000	0.000
para-Dichlorobenzene	mg/L b	0.075	0.000	0.000
1, 1- Dichloroethylene	mg/L b	0.007	0.000	0.000
1, 1, 1-Trichloroethane	mg/L b	0.2	0.0	0.0
cis-1, 2 – Dichloroethylene	mg/L b	0.07	0.00	0.00
1, 2- Dichloropropane	mg/L b	0.005	0.000	0.000

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Ethylbenzene	mg/L b	0.7	0.0	0.0
Monochlorobenzene	mg/L b	0.1	0.0	0.0
o- Dichlorobenzene	mg/L b	0.6	0.0	0.0
Styrene	mg/L b	0.1	0.0	0.0
Tetrachloroethylene	mg/L b	0.003	0.000	0.000
Toluene	mg/L b	1	0	0
Trans-1, 2-Dichloroethylene	mg/L b	0.1	0.0	0.0
Xylenes (total)	mg/L b	10	0	0
Dichloromethane	mg/L b	0.005	0.000	0.000
1, 2, 4 – Trichlorobenzene	mg/L b	0.07	0.00	0.00
1, 1, 2 – Trichloroethane	mg/L b	0.005	0.000	0.000
Ethylene Dibromide	mg/L b	0.00002	0.00000	0.00000
RADIONUCLIDES				
Gross Alpha	pCi/L b	15	<3	<2
Radon	pCi/L d	--	249	260
Radium 226	pCi/L b	5	<0.7	<0.5
Radium 228	pCi/L b	5	<0.7	<0.6

NOTES

- a) MCL – Maximum Contaminant Level. Values are for the Agency with the most stringent levels.
- b) MCL – Set by Florida Administrative Code, Chapter 62-550, Primary Drinking Water Standards
- b2) MCL – Set by Florida Administrative Code, Chapter 62-550 Secondary Drinking Water Standards
- c) MCL – Set by Miami-Dade County Code 24-43.3 for Drinking Water
- d) No Limits Set
- e) No more than 5.0 percent of the samples collected during a month show the presence of total coliform bacteria.
- f) For free chlorine residual: minimum is 0.2 mg/L, maximum is 4.0 mg/L. For total chlorine residual: minimum is 0.6 mg/L, maximum is 4.0 mg/L. Results expressed as free/total.
- g) N.O.D. - No Odor Detected
- h) ND - Not Detected
- ❖ < - Less than
- ❖ ≥ - Greater than or equal to
- ❖ = - 4.1 grains/Gal
- ❖ ∞ - 77 °F