COMPREHENSIVE CHEMICAL ANALYSIS
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES
LABORATORY ACCREDITATION NUMBER: 100228

1st Quarter - 2023

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	Sample Date	2/6/2023	2/6/2023	2/6/2023	2/6/23-2/8/23	2/6/2023	2/6/2023	2/6/2023	2/7/23 - 2/8/23	2/7/23 - 2/8/2023
				LAB ID Nos.	23C0512	23C0514	23C0515	23C0690-23C0695	23C0508	23C0510	23C0511	23C0668-23C0670 23C0696-23C0697	23C0671-23C0675
					SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
					1	2A	2B	3	4	5A	5B	6	7
					RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
						73rd Street	79th Street	SOUTH		North	Central	Central	North
TEMPERATURE ‡		°C	EPA 170.1		3	3	2	10	6	3	3	9	8
TURBIDITY	TT	NTU	SM 2130 B- 2001		2.4	0.10	0.10	0.15	0.10	0.10	0.10	0.11	0.15
THRESHOLD ODOR, STRAIGHT ‡	*3	TON	JWPP -0059 V		1 EP	2 Cc	2 Cc	2 Cc	1 Ep	2 Cc	2 Cc	1 Cc	1 Cc
THRESHOLD ODOR, DECHLORINATED ‡	*3	TON	JWPP -0059 V		1 Ep	1 Mm	1 Mm	1 Mm	1 Ep	1Mm	1 Mm	1 Mm	1 Mm
COLOR‡	*15	Apparent CU	SM 2120 C		17.9	<5	<5	<5	7	<5	<5	<5	<5
pH	*6.5-8.5	pH Unit	EPA 150.1 1982		8.1	7.7	7.6	7.7	8.0	7.7	7.6	7.7	7.7
FREE CHLORINE RESIDUAL ‡		CL_2, mg/L	SM 4500-Cl D - 2000		ND	1.53	1.54	1.13	ND	1.66	1.65	1.34	1.27
SATURATION INDEX, LANGELIER ‡		UNITS +/-	SM 2330 B - 2000		-0.24	-0.84	-0.85	-0.52	-0.12	-0.84	-0.83	-0.52	-0.58
ALKALINITY, PHENOLPHTHALEIN		as CaCO3, mg/L	SM 2320 B - 1997		0	0	0	0	0	0	0	0	0
ALKALINITY, TOTAL		as CaCO3, mg/L	SM 2320 B - 1997		107	100	100	99.5	106	98.2	98.6	99.4	97.7
CONDUCTIVITY		uS/cm @25°C	SM 2510 B - 1997		314	319	320	319	305	310	311	312	320
BROMIDE ‡		Br, mg/L	EPA 300.0 2.1 1993		<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
CHLORIDE	*250	Cl, mg/L	EPA 300.0 2.1 1993		14.0	15.6	15.9	15.4	14.1	15.7	15.7	15.3	15.2
FLUORIDE	4	F, mg/L	SM4500 F - C 1997		<0.5	0.685	0.637	0.656	<0.5	0.722	0.737	0.691	0.686
SULFATE	*250	SO4, mg/L	EPA 300.0 2.1 1993		22.6	27.4	27.4	27.5	22.3	26.1	26.1	25.9	26.1
HARDNESS (EDTA)		as CaCO3, mg/L	SM 2340 C - 1997		130	135	135	138	131	134	130	136	132
CALCIUM		Ca, mg/L	EPA 200.7 4.4 1994		34.3	35.0	35.0	35.4	33.3	34.7	34.6	35.1	35.0
MAGNESIUM ‡		Mg, mg/L	EPA 200.7 4.4 1994		11.8	12.2	12.1	12.3	11.5	12.1	12.0	12.2	12.2
POTASSIUM ‡		K, mg/L	EPA 200.7 4.4 1994		1.27	1.34	1.32	1.31	1.18	1.29	1.28	1.29	1.30
SODIUM		Na, mg/L	EPA 200.7 4.4 1994		7.75	8.71	8.71	8.52	7.32	8.36	8.35	8.48	8.42
SOLIDS, TOTAL DISSOLVED ‡	*500	TDS, mg/L	SM 2540 C - 1997		174	178	178	177	170	178	181	177	178
SOLIDS, TOTAL ‡		Tot. Sol., mg/L	EPA 160.3 - 1971		186	188	187	194	181	187	180	185	188
TOTAL ORGANIC CARBON		TOC, mg/L	SM 5310 C - 2000		1.72	1.50	1.48	1.45	1.71	1.49	1.49	1.48	1.45
OXYGEN DEMAND, CHEMICAL ‡		O, mg/L	EPA 410.4 - 1993		4.77	3.36	3.36	2.65	5.08	3.49	3.25	2.84	3.30
NITROGEN, AMMONIA ‡		N, mg/L	EPA 350.1 - 2 1993		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
NITROGEN, NITRATE	10	N, mg/L	EPA 300.0 2.1 1993		0.329	0.322	0.327	0.320	0.326	0.323	0.324	0.319	0.317
NITROGEN, NITRITE	1	N, mg/L	EPA 300.0 2.1 1993		<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
ORTHOPHOSPHATE		PO4, mg/L	SM 4500 P E 1999		<0.06	0.607	0.625	0.630	<0.06	0.571	0.568	0.570	0.544
PHOSPHATE, TOTAL ‡		PO4, mg/L	SM 4500 P E 1999		<0.06	1.30	1.36	1.42	<0.06	1.20	1.20	1.31	1.25
CYANIDE	200	CN, ug/L	LACHAT 10-204-00-1-X 2.1		<20	<20	<20	<20	<20	<20	<20	<20	<20

* Federal Primary/Secondary MCLs ** Action Level TT - Treatment Technique ND - not detected Distribution samples results are averages

‡ - Non-NELAP Accredited

WPL pH sample exceeded holding time of 15 minutes.

Cyanide MS - did not meet QC Criteria

H - Holding Time Exceeded R - Data rejected NA - Data Not Available

EPA 300.0 Analytes were sampled 2/27/2023 - Sample ID: (23C1050, 23C1052-53, 23C1054, 23C1056-57)

COMPREHENSIVE CHEMICAL ANALYSIS
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES
LABORATORY ACCREDITATION NUMBER: 100228

1st Quarter - 2023

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	Sample Date	2/6/2023	2/6/2023	2/6/2023	2/6/23-2/8/23	2/6/2023	2/6/2023	2/6/2023	2/7/23 - 2/8/23	2/7/23 - 2/8/2023
				LAB ID Nos.	23C0512	23C0514	23C0515	23C0690-23C0695	23C0508	23C0510	23C0511	23C0668-23C0670 23C0696-23C0697	23C0671-23C0675
					SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
					1	2A	2B	3	4	5A	5B	6	7
					RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
						73rd Street	79th Street	SOUTH		North	Central	Central	North
ALUMINUM	*50-200	Al, µg/L	EPA 200.7 4.4 1994		90.3	42.0	42.3	38.2	31.8	58.4	61.4	55.1	54.6
ANTIMONY	6	Sb, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	10	As, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
BARIUM	2000	Ba, µg/L	EPA 200.7 4.4 1994		18.6	18.3	18.0	17.6	18.5	18.1	18.0	17.5	17.4
BERYLLIUM	4	Be, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON ‡		B, µg/L	EPA 200.7 4.4 1994		22.0	23.7	23.7	23.1	21.7	22.7	22.8	22.8	22.8
CADMIUM	5	Cd, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM	100	Cr, µg/L	EPA 200.8 5.4 1994		1.01	<1	<1	<1	1.02	<1	<1	<1	<1
COBALT ‡		Co, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	EPA 200.8 5.4 1994		1.40	<1	<1	1.93	<1	<1	<1	1.07	3.07
IRON	*300	Fe, µg/L	EPA 200.7 4.4 1994		72.1	1.39	<1	4.48	19.8	<1	<1	4.89	25.2
LEAD	**15.0	Pb, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	1.13	<1	<1	<1	<1	<1
LITHIUM ‡		Li, µg/L	EPA 200.7 4.4 1994		1.10	1.39	1.44	1.10	1.16	1.54	<1	1.22	1.20
MANGANESE	*50	Mn, µg/L	EPA 200.8 5.4 1994		1.82	<1	<1	<1	<1	<1	<1	<1	1.34
MERCURY ‡	2	Hg, µg/L	EPA 245.1 3 1994		O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S
MOLYBDENUM		Mo, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
NICKEL		Ni, µg/L	EPA 200.8 5.4 1994		1.66	1.43	1.46	1.44	1.43	1.35	1.40	1.40	1.38
SELENIUM	50	Se, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
SILICON		Si, µg/L	EPA 200.7 4.4 1994		1020	1061	1051	1079	973	1096	1089	1090	1105
SILVER	*100	Ag, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM ‡		Sr, µg/L	EPA 200.8 5.4 1994		109	112	112	109	108	110	109	108	109
THALLIUM	2	Tl, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
TITANIUM ‡		Ti, µg/L	EPA 200.8 5.4 1994		3.99	2.16	2.20	2.20	1.05	1.96	2.02	2.06	1.94
VANADIUM ‡		V, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
ZINC	*5000	Zn, µg/L	EPA 200.7 4.4 1994		<1	<1	<1	7.16	<1	<1	<1	27.5	21.0

* Federal Primary/Secondary MCLs ** Action Level TT - Treatment Technique ND - not detected Distribution samples results are averages

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CHIEF WATER CHEMIST

DIRECTOR OF LABORATORIES

COMPREHENSIVE CHEMICAL ANALYSIS
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WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES
LABORATORY ACCREDITATION NUMBER: 100228

2nd Quarter - 2023

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	Sample Date	5/1/2023	5/1/2023	5/1/2023	5/3/2023	5/1/2023	5/1/2023	5/1/2023	5/2/2023 - 5/3/2023	5/2/2023
				LAB ID Nos.	23C2562	23C2564	23C2565	23C2615 - 23C2620	23C2558	23C2560	23C2561	23C2598-23C2600 23C2621-23C2622	23C0601 - 23C2605
					SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
					1	2A	2B	3	4	5A	5B	6	7
					RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
						73rd Street	79th Street	SOUTH		North	Central	Central	North
TEMPERATURE ‡		°C	EPA 170.1		10	10	10	9	10	11	11	10	13
TURBIDITY	TT	NTU	SM 2130 B- 2001		0.65	0.05	0.05	0.15	0.75	0.10	0.10	0.15	0.10
THRESHOLD ODOR, STRAIGHT ‡	*3	TON	JWPP -0059 V		2 M	2 Cc	2 Cc	1 Cc	2 M	2 Cc	2 Cc	1 Cc	1 Cc
THRESHOLD ODOR, DECHLORINATED ‡	*3	TON	JWPP -0059 V		1 M	1 M	1 M	1 M	1 M	1 M	1 M	1 M	1 M
COLOR‡	*15	Apparent CU	SM 2120 C		<5	<5	<5	<5	5.09	<5	<5	<5	<5
pH	*6.5-8.5	pH Unit	EPA 150.1 1982		8.0	7.6	7.6	7.7	8.0	7.6	7.6	7.6	7.6
FREE CHLORINE RESIDUAL ‡		CL_2, mg/L	SM 4500-Cl D - 2000		ND	1.55	1.48	1.13	ND	1.59	1.61	1.30	1.18
SATURATION INDEX, LANGELIER ‡		UNITS +/-	SM 2330 B - 2000		0.15	-0.54	-0.50	-0.56	0.14	-0.60	-0.60	-0.56	-0.49
ALKALINITY, PHENOLPHTHALEIN		as CaCO3, mg/L	SM 2320 B - 1997		0	0	0	0	0	0	0	0	0
ALKALINITY, TOTAL		as CaCO3, mg/L	SM 2320 B - 1997		110	102	106	101	106	102	103	102	100
CONDUCTIVITY		uS/cm @25°C	SM 2510 B - 1997		304	312	311	313	302	313	315	309	310
BROMIDE ‡		Br, mg/L	EPA 300.0 2.1 1993		<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
CHLORIDE	*250	Cl, mg/L	EPA 300.0 2.1 1993		14.9	16.4	16.4	16.8	14.8	17.6	17.5	17.0	17.5
FLUORIDE	4	F, mg/L	SM4500 F - C 1997		0.059	0.632	0.602	0.658	0.057	0.659	0.666	0.712	0.730
SULFATE	*250	SO4, mg/L	EPA 300.0 2.1 1993		22.8	26.8	26.5	26.7	22.5	26.2	25.8	26.0	26.1
HARDNESS (EDTA)		as CaCO3, mg/L	SM 2340 C - 1997		128	127	127	133	127	126	131	133	134
CALCIUM		Ca, mg/L	EPA 200.7 4.4 1994		35.6	35.3	35.4	35.9	35.4	35.6	35.9	35.5	35.5
MAGNESIUM ‡		Mg, mg/L	EPA 200.7 4.4 1994		12.8	12.7	12.7	12.8	12.8	12.8	12.9	12.8	12.8
POTASSIUM ‡		K, mg/L	EPA 200.7 4.4 1994		1.26	1.28	1.29	1.30	1.23	1.26	1.28	1.27	1.27
SODIUM		Na, mg/L	EPA 200.7 4.4 1994		9.22	9.58	9.67	10.0	9.29	10.2	10.3	9.91	10.2
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	SM 2540 C - 1997		172	178	174	178	174	173	177	177	180
SOLIDS, TOTAL ‡		Tot. Sol., mg/L	EPA 160.3 - 1971		180	201	200	187	179	220	195	194	194
TOTAL ORGANIC CARBON		TOC, mg/L	SM 5310 C - 2000		1.64	1.49	1.46	1.49	1.63	1.47	1.48	1.48	1.51
OXYGEN DEMAND, CHEMICAL ‡		O, mg/L	EPA 410.4 - 1993		4.60	3.60	3.50	2.74	4.30	4.20	5.40	3.27	4.57
NITROGEN, AMMONIA ‡		N, mg/L	EPA 350.1 - 2 1993		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
NITROGEN, NITRATE	10	N, mg/L	EPA 300.0 2.1 1993		0.345	0.337	0.338	0.343	0.336	0.350	0.348	0.343	0.357
NITROGEN, NITRITE	1	N, mg/L	EPA 300.0 2.1 1993		<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
ORTHOPHOSPHATE		PO4, mg/L	SM 4500 P E 1999		<0.06	0.675	0.716	0.778	<0.06	0.551	0.556	0.619	0.598
PHOSPHATE, TOTAL ‡		PO4, mg/L	SM 4500 P E 1999		<0.06	1.51	1.60	1.59	<0.06	1.28	1.26	1.25	1.26
CYANIDE	200	CN, ug/L	LACHAT 10-204-00-1-X 2.1		<20	<20	<20	<20	<20	<20	<20	<20	<20

* Federal Primary/Secondary MCLs

** Action Level

TT - Treatment Technique

ND - not detected

Distribution samples results are averages

‡ - Non-NELAP Accredited

‡ - Non-NELAP Accredited

WPL pH sample exceeded holding time of 15 minutes.

H - Holding Time Exceeded

R - Data rejected

NA - Data Not Available

Cyanide MS & MSD - samples 23C2620-23C2622 (6S ,4C, 5C) did not meet QC Criteria

COMPREHENSIVE CHEMICAL ANALYSIS
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2nd Quarter - 2023

				SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
			Sample Date	5/1/2023	5/1/2023	5/1/2023	5/3/2023	5/1/2023	5/1/2023	5/1/2023	5/2/2023 - 5/3/2023	5/2/2023
			LAB ID Nos.	23C2562	23C2564	23C2565	23C2615 - 23C2620	23C2558	23C2560	23C2561	23C2598-23C2600 23C2621-23C2622	23C0601 - 23C2605
				1	2A	2B	3	4	5A	5B	6	7
PARAMETER	IEPA MCL	DETERMINED AS	METHOD	RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
					73rd Street	79th Street	SOUTH		North	Central	Central	North
ALUMINUM	*50-200	Al, µg/L	EPA 200.7 4.4 1994	28.0	51.3	53.3	54.5	25.3	68.7	70.6	61.5	62.3
ANTIMONY	6	Sb, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	10	As, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	<1
BARIUM	2000	Ba, µg/L	EPA 200.8 4.4 1994	19.3	18.7	18.6	18.5	19.0	18.7	18.9	18.4	18.5
BERYLLIUM	4	Be, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON ‡		B, µg/L	EPA 200.7 4.4 1994	23.2	23.3	23.8	23.2	22.7	22.7	23.2	23.2	23.0
CADMIUM ‡	5	Cd, µg/L	EPA 200.7 4.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM ‡	100	Cr, µg/L	EPA 200.7 4.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	<1
COBALT ‡		Co, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	EPA 200.9 3 2001	1.09	<1	<1	1.01	<1	<1	<1	1.02	3.94
IRON	*300	Fe, µg/L	EPA 200.7 4.4 1994	13.4	<1	1.83	21.0	15.5	<1	<1	12.9	6.18
LEAD	**15.0	Pb, µg/L	EPA 200.9 3 2001	<1	<1	<1	1.13	<1	<1	<1	<1	3.36
LITHIUM ‡		Li, µg/L	EPA 200.7 4.4 1994	3.57	3.39	3.33	2.80	3.04	3.03	2.88	2.86	2.72
MANGANESE	*50	Mn, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	1.10	1.05
MERCURY ‡	2	Hg, µg/L	EPA 245.1 3 1994	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
MOLYBDENUM		Mo, µg/L	EPA 200.8 5.4 1994	<1	1.01	1.03	1.02	<1	<1	<1	1.01	1.00
NICKEL		Ni, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	<1
SELENIUM	50	Se, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	<1
SILICON		Si, µg/L	EPA 200.7 4.4 1994	770	937	920	895	850	905	902	912	904
SILVER	*100	Ag, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM ‡		Sr, µg/L	EPA 200.8 5.4 1994	111	110	110	113	110	110	111	111	112
THALLIUM	2	Tl, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	<1
TITANIUM ‡		Ti, µg/L	EPA 200.8 5.4 1994	<1	2.88	3.02	3.07	1.04	2.42	2.44	2.51	2.45
VANADIUM ‡		V, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	<1
ZINC	*5000	Zn, µg/L	EPA 200.7 4.4 1994	<1	<1	<1	11.6	<1	<1	<1	46.2	20.3

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Rashelle Barth
CHIEF WATER CHEMIST

Hassan Saleh
DIRECTOR OF LABORATORIES

COMPREHENSIVE CHEMICAL ANALYSIS
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES
LABORATORY ACCREDITATION NUMBER: 100228

3rd Quarter - 2023

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	Sample Date	7/31/2023	7/31/2023	7/31/2023	8/1/2023	7/31/2023	7/31/2023	7/31/2023	8/2/23 & 8/1/23	8/2/2023
				LAB ID Nos.	23C5605	23C5607	23C5608	23C5632 - 23C5637	23C5601	23C5603	23C5604	23C5653 - 23C5655 23C5638 - 23C5639	23C5656 - 23C5660
					SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
					1	2A	2B	3	4	5A	5B	6	7
					RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
						73rd Street	79th Street	SOUTH		North	Central	Central	North
TEMPERATURE ‡		°C	EPA 170.1		23	23	23	22	23	22	22	21	21
TURBIDITY	TT	NTU	SM 2130 B- 2001		0.30	0.10	0.10	0.15	0.35	0.05	0.10	0.20	0.10
THRESHOLD ODOR, STRAIGHT ‡	*3	TON	JWPP -0059 V		1 Mm	1 Mm	1 Cc	1 Mm	2 Df	1 Cc	1 Cc	1 Cc	1 Cc
THRESHOLD ODOR, DECHLORINATED ‡	*3	TON	JWPP -0059 V		1 Mm	1 Mm	1 Mm	1 Mm	1 Df	1 Mm	1 Mm	1 M	1 M
COLOR‡	*15	Apparent CU	SM 2120 C		<5	<5	<5	<5	<5	<5	<5	<5	<5
pH	*6.5-8.5	pH Unit	EPA 150.1 1982		8.1	7.7	7.6	7.6	8.2	7.6	7.6	7.7	7.7
FREE CHLORINE RESIDUAL ‡		CL_2, mg/L	SM 4500-Cl D - 2000		ND	1.67	1.70	1.14	ND	1.57	1.54	1.23	1.08
SATURATION INDEX, LANGELIER ‡		UNITS +/-	SM 2330 B - 2000		0.15	-0.66	-0.68	-0.61	0.21	-0.59	-0.62	-0.59	-0.44
ALKALINITY, PHENOLPHTHALEIN		as CaCO3, mg/L	SM 2320 B - 1997		0	0	0	0	0	0	0	0	0
ALKALINITY, TOTAL		as CaCO3, mg/L	SM 2320 B - 1997		103	97.0	97.4	97.0	103	96.8	96.3	96.2	96.2
CONDUCTIVITY		uS/cm @25°C	SM 2510 B - 1997		300	307	306	318	300	305	306	303	300
BROMIDE ‡		Br, mg/L	EPA 300.0 2.1 1993		<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
CHLORIDE	*250	Cl, mg/L	EPA 300.0 2.1 1993		13.3	15.3	15.3	15.3	13.2	15.2	15.2	15.2	15.3
FLUORIDE	4	F, mg/L	SM4500 F - C 1997		0.111	0.751	0.726	0.730	0.109	0.742	0.741	0.743	0.742
SULFATE	*250	SO4, mg/L	EPA 300.0 2.1 1993		21.4	24.7	24.4	24.4	21.4	24.4	24.6	24.5	24.4
HARDNESS (CALC)		as CaCO3, mg/L	SM 2340 B - 1997		137	137	137	138	137	137	137	136	136
CALCIUM		Ca, mg/L	EPA 200.7 4.4 1994		34.8	34.7	34.9	35.2	34.6	34.8	34.7	34.3	34.5
MAGNESIUM ‡		Mg, mg/L	EPA 200.7 4.4 1994		12.2	12.2	12.3	12.3	12.3	12.2	12.2	12.2	12.3
POTASSIUM ‡		K, mg/L	EPA 200.7 4.4 1994		1.43	1.48	1.50	1.50	1.44	1.46	1.47	1.47	1.48
SODIUM		Na, mg/L	EPA 200.7 4.4 1994		8.67	8.98	9.08	9.10	8.57	8.95	8.94	8.99	8.98
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	SM 2540 C - 1997		165	170	144	183	184	172	169	178	173
SOLIDS, TOTAL ‡		Tot. Sol., mg/L	EPA 160.3 - 1971		184	194	195	220	194	188	194	194	186
TOTAL ORGANIC CARBON		TOC, mg/L	SM 5310 C - 2000		1.66	1.61	1.62	1.67	1.73	1.62	1.62	1.66	1.66
OXYGEN DEMAND, CHEMICAL ‡		O, mg/L	EPA 410.4 - 1993		3.79	3.25	2.41	3.95	5.22	2.72	3.80	4.29	4.69
NITROGEN, AMMONIA ‡		N, mg/L	EPA 350.1 - 2 1993		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
NITROGEN, NITRATE	10	N, mg/L	EPA 300.0 2.1 1993		0.269	0.260	0.261	0.275	0.262	<0.25	0.251	0.261	0.260
NITROGEN, NITRITE	1	N, mg/L	EPA 300.0 2.1 1993		<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
ORTHOPHOSPHATE		PO4, mg/L	SM 4500 P E 1999		<0.06	0.651	0.632	0.723	<0.06	0.600	0.602	0.652	0.651
PHOSPHATE, TOTAL ‡		PO4, mg/L	SM 4500 P E 1999		<0.06	1.12	1.19	1.32	<0.06	1.24	1.30	1.31	1.26
CYANIDE	200	CN, ug/L	LACHAT 10-204-00-1-X 2.1		<20	<20	<20	<20	<20	<20	<20	<20	<20

* Federal Primary/Secondary MCLs ** Action Level TT - Treatment Technique ND - not detected Distribution samples results are averages

‡ - Non-NELAP Accredited ‡ - Non-NELAP Accredited *WPL pH sample exceeded holding time of 15 minutes.* *H - Holding Time Exceeded* *R - Data rejected* *NA - Data Not Available*

Cyanide MS & MSD - samples 23C2620-23C2622 (6S ,4C, 5C) did not meet QC Criteria

COMPREHENSIVE CHEMICAL ANALYSIS
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES
LABORATORY ACCREDITATION NUMBER: 100228

3rd Quarter - 2023

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	Sample Date	7/31/2023	7/31/2023	7/31/2023	8/1/2023	7/31/2023	7/31/2023	7/31/2023	8/2/23 & 8/1/23	8/2/2023
				LAB ID Nos.	23C5605	23C5607	23C5608	23C5632 - 23C5637	23C5601	23C5603	23C5604	23C5653 - 23C5655 23C5638 - 23C5639	23C5656 - 23C5660
					SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
					1	2A	2B	3	4	5A	5B	6	7
					RAW	OUTLETS		***DISTRIBUTION	RAW	OUTLETS		***DISTRIBUTION	
					LAKE	73rd Street	79th Street	SOUTH	LAKE	North	Central	Central	North
ALUMINUM	*50-200	Al, µg/L	EPA 200.7 4.4 1994		16.4	162	178	133	21.8	162	158	144	138
ANTIMONY	6	Sb, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	10	As, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
BARIUM	2000	Ba, µg/L	EPA 200.8 4.4 1994		19.0	18.8	19.0	19.3	19.0	18.9	19.0	19.3	19.1
BERYLLIUM	4	Be, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON ‡		B, µg/L	EPA 200.7 4.4 1994		23.7	23.6	23.8	24.0	24.0	23.6	23.3	23.8	23.7
CADMIUM ‡	5	Cd, µg/L	EPA 200.7 4.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM ‡	100	Cr, µg/L	EPA 200.7 4.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
COBALT ‡		Co, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	EPA 200.9 3 2001		1.60	<1	<1	<1	<1	<1	<1	1.74	1.63
IRON	*300	Fe, µg/L	EPA 200.7 4.4 1994		5.38	<1	<1	3.84	9.33	<1	<1	14.8	11.4
LEAD	**15.0	Pb, µg/L	EPA 200.9 3 2001		<1	<1	<1	1.14	<1	<1	<1	1.23	1.59
LITHIUM ‡		Li, µg/L	EPA 200.7 4.4 1994		<1	<1	1.24	<1	1.01	<1	<1	1.02	<1
MANGANESE	*50	Mn, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	1.10	1.13
MERCURY ‡	2	Hg, µg/L	EPA 245.1 3 1994		<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
MOLYBDENUM		Mo, µg/L	EPA 200.8 5.4 1994		1.07	1.07	1.06	1.08	1.02	1.18	1.04	<1	1.01
NICKEL		Ni, µg/L	EPA 200.8 5.4 1994		1.58	1.55	1.55	1.60	1.76	1.62	1.58	1.64	1.63
SELENIUM	50	Se, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
SILICON		Si, µg/L	EPA 200.7 4.4 1994		712	864	852	870	736	869	864	865	866
SILVER	*100	Ag, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM ‡		Sr, µg/L	EPA 200.8 5.4 1994		107	108	107	107	109	108	108	107	106
THALLIUM	2	Tl, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
TITANIUM ‡		Ti, µg/L	EPA 200.8 5.4 1994		<1	2.37	2.52	2.62	<1	2.58	2.58	2.63	2.62
VANADIUM ‡		V, µg/L	EPA 200.8 5.4 1994		<1	<1	<1	<1	<1	<1	<1	<1	<1
ZINC	*5000	Zn, µg/L	EPA 200.7 4.4 1994		<1	<1	<1	5.16	<1	<1	<1	28.0	20.4

* Federal Primary/Secondary MCLs ** Action Level TT - Treatment Technique ND - not detected Distribution samples results are averages

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Rachel Dale
CHIEF WATER CHEMIST

Hassen Sabek
DIRECTOR OF LABORATORIES