

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 - 2024

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				1	2A	2B	3	4	5A	5B	6	7
				RAW LAKE	OUTLETS		***DISTRIBUTION SOUTH	RAW LAKE	OUTLETS		***DISTRIBUTION	
					73rd Street	79th Street			North	Central	Central	North
TEMPERATURE ‡		°C	EPA 170.1	5	5	6	7	3	6	4	7	7
TURBIDITY	TT	NTU	SM 2130 B- 2001	2.0	0.10	0.10	0.20	3.0	0.15	0.10	0.10	0.15
THRESHOLD ODOR, STRAIGHT ‡	*3	TON	JWPP -0059 V	1 E	1 Cc	1 Cc	2 Cc	1 E	1 Cc	1 Cc	1 Cc	1 Cc
THRESHOLD ODOR, DECHLORINATED ‡	*3	TON	JWPP -0059 V	1 E	1 Mm	1 Mm	1 M	1 E	1Mm	1 Mm	1 M	1 M
COLOR‡	*15	Apparent CU	SM 2120 C	9.8	<5	<5	<5	15.6	<5	<5	<5	<5
pH	*6.5-8.5	pH Unit	EPA 150.1 1982	7.9	7.5	7.4	7.6	7.8	7.4	7.4	7.5	7.5
FREE CHLORINE RESIDUAL ‡		CL ₂ , mg/L	SM 4500-Cl D - 2000	ND	1.55	1.55	1.18	ND	1.56	1.52	1.28	1.31
SATURATION INDEX, LANGELIER ‡		UNITS +/-	SM 2330 B - 2000	-0.44	-0.86	-0.88	-0.61	-0.52	-0.92	-0.97	-0.76	-0.80
ALKALINITY, PHENOLPHTHALEIN		as CaCO ₃ , mg/L	SM 2320 B - 1997	0	0	0	0	0	0	0	0	0
ALKALINITY, TOTAL		as CaCO ₃ , mg/L	SM 2320 B - 1997	110	102	103	103	107	100.0	100	99.8	99.7
CONDUCTIVITY		uS/cm @25°C	SM 2510 B - 1997	318	322	323	320	307	312	315	307	304
BROMIDE ‡		Br, mg/L	EPA 300.0 2.1 1993	O/S	O/S	O/S	O/S	O/S	O/S	O/S	<0.25	<0.25
CHLORIDE	*250	Cl, mg/L	EPA 300.0 2.1 1993	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S
FLUORIDE	4	F, mg/L	SM4500 F - C 1997	<0.5	0.660	0.651	0.653	<0.5	0.730	0.732	0.736	0.735
SULFATE	*250	SO ₄ , mg/L	EPA 300.0 2.1 1993	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S
HARDNESS (EDTA)		as CaCO ₃ , mg/L	SM 2340 C - 1997	141	141	141	143	141	140	141	142	140
CALCIUM		Ca, mg/L	EPA 200.7 4.4 1994	35.8	36.2	36.1	36.6	35.1	35.4	35.4	35.1	34.4
MAGNESIUM ‡		Mg, mg/L	EPA 200.7 4.4 1994	12.3	12.4	12.4	12.7	12.1	12.2	12.1	12.1	11.8
POTASSIUM ‡		K, mg/L	EPA 200.7 4.4 1994	1.59	1.28	1.28	1.29	1.53	1.23	1.25	1.22	1.18
SODIUM		Na, mg/L	EPA 200.7 4.4 1994	9.72	9.79	9.83	9.96	8.56	9.04	9.07	9.02	8.78
SOLIDS, TOTAL DISSOLVED ‡	*500	TDS, mg/L	SM 2540 C - 1997	175	176	177	180	171	174	173	174	172
SOLIDS, TOTAL ‡		Tot. Sol., mg/L	EPA 160.3 - 1971	184	188	194	185	183	174	185	184	186
TOTAL ORGANIC CARBON		TOC, mg/L	SM 5310 C - 2000	1.72	1.47	1.48	1.47	1.65	1.41	1.42	1.42	1.44
OXYGEN DEMAND, CHEMICAL ‡		O, mg/L	EPA 410.4 - 1993	4.83	2.59	2.79	3.42	4.24	2.95	1.93	3.17	3.86
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	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S
NITROGEN, NITRITE	1	N, mg/L	EPA 300.0 2.1 1993	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	<0.25
ORTHOPHOSPHATE		PO ₄ , mg/L	SM 4500 P E 1999	<0.06	0.538	0.670	0.660	<0.06	0.546	0.538	0.574	0.557
PHOSPHATE, TOTAL ‡		PO ₄ , mg/L	SM 4500 P E 1999	<0.06	1.31	1.54	1.43	<0.06	1.28	1.29	1.27	1.23
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.

H - Holding Time Exceeded

R - Data rejected

NA - Data Not Available

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 - 2024

Sample Date	2/5/2024	2/5/2024	2/5/2024	2/6/2024	2/5/2024	2/5/2024	2/5/2024	2/7/24 & 2/6/24	2/7/2024
LAB ID Nos.	24C0847	24C0849	24C0850	24C0876 - 24C0881	24C0843	24C0845	24C0846	24C0897-24C0899 24C0882-24C0883	24C0900-24C0904

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	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	93.6	46.3	45.3	40.7	83.2	47.2	48.5	44.7	43.9
ANTIMONY	6	Sb, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	1.52	1.81
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	21.2	19.7	19.8	19.6	20.7	19.6	19.4	19.2	18.8
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	25.2	25.0	25.3	25.3	23.6	24.2	23.8	24.2	23.6
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	<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 200.8 5.4 1994	2.25	<1	<1	1.04	<1	<1	<1	1.01	1.51
IRON	*300	Fe, µg/L	EPA 200.7 4.4 1994	69.8	<1	<1	6.13	88.9	<1	<1	6.07	5.46
LEAD	**15.0	Pb, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	<1	1.18
LITHIUM ‡		Li, µg/L	EPA 200.7 4.4 1994	1.77	2.28	2.1	2.40	1.76	2.37	2.26	2.33	2.31
MANGANESE	*50	Mn, µg/L	EPA 200.8 5.4 1994	1.69	<1	<1	<1	2.75	<1	<1	<1	1.37
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	1.12	1.06	<1	1.02	1.24	<1	<1	1.02	<1
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	1178	1142	1137	1166	1199	1216	1214	1193	1165
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	126	118	107	112	121	106	105	112	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	2.48	<1	<1	<1	2.89	<1	<1	<1	<1
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	4.81	<1	<1	7.35	4.09	<1	<1	27.5	20.3

* 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 - 2024

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	Sample Date	4/1/2024	4/1/2024	4/1/2024	4/3/2024	4/1/2024	4/1/2024	4/1/2024	4/2/2024 - 4/3/2024	4/2/2024			
				LAB ID Nos.	24C2208	24C2210	24C2211	24C2262 - 24C2267	24C2204	24C2206	24C2207	24C2243 - 24C2245 24C2268 - 24C2269	24C2246 - 24C2250			
				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	9	9	8	9	6	8	8	10	10				
TURBIDITY	TT	NTU	SM 2130 B - 2001	1.2	0.10	0.10	0.10	1.7	0.10	0.10	0.15	0.10				
THRESHOLD ODOR, STRAIGHT ‡	*3	TON	JWPP -0059 V	1 Ep	1 Cc	1 Cc	1 Cc	1 Ep	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 Mm	1 Mm	1 M	1 Mm	1 Mm				
COLOR‡	*15	Apparent CU	SM 2120 C	11.0	<5	<5	<5	12.1	<5	<5	<5	<5				
pH **	*6.5-8.5	pH Unit	EPA 150.1 1982	8.2	7.6	7.7	7.6	8.2	7.6	7.6	7.5	7.5				
FREE CHLORINE RESIDUAL ‡		CL ₂ , mg/L	SM 4500-Cl D - 2000	ND	1.55	1.55	1.21	ND	1.71	1.64	1.36	1.12				
SATURATION INDEX, LANGELIER ‡		UNITS +/-	SM 2330 B - 2000	0.03	-0.58	-0.55	-0.61	-0.08	-0.67	-0.65	-0.68	-0.71				
ALKALINITY, PHENOLPHTHALEIN		as CaCO ₃ , mg/L	SM 2320 B - 1997	0	0	0	0	0	0	0	0	0				
ALKALINITY, TOTAL		as CaCO ₃ , mg/L	SM 2320 B - 1997	108	102	102	101	108	97.6	102	101	102				
CONDUCTIVITY		uS/cm @25°C	SM 2510 B - 1997	326	329	329	329	322	332	332	328	334				
BROMIDE ‡		Br, mg/L	EPA 300.0 2.1 1993	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S				
CHLORIDE	*250	Cl, mg/L	EPA 300.0 2.1 1993	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S				
FLUORIDE	4	F, mg/L	SM4500 F - C 1997	<0.50	0.636	0.618	0.638	0.057	0.607	0.612	0.654	0.686				
SULFATE	*250	SO ₄ , mg/L	EPA 300.0 2.1 1993	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S				
HARDNESS (Calc.)		as CaCO ₃ , mg/L	SM 2340 B - 1997	138	145	145	144	139	145	146	144	145				
CALCIUM		Ca, mg/L	EPA 200.7 4.4 1994	34.5	36.7	36.6	36.2	35.0	36.8	37.0	36.3	36.6				
MAGNESIUM ‡		Mg, mg/L	EPA 200.7 4.4 1994	12.6	13.0	12.9	13.0	12.5	13.0	13.1	13.0	13.1				
POTASSIUM ‡		K, mg/L	EPA 200.7 4.4 1994	1.34	1.38	1.37	1.37	1.34	1.42	1.41	1.36	1.38				
SODIUM		Na, mg/L	EPA 200.7 4.4 1994	11.0	11.4	11.4	11.2	10.7	12.0	12.0	11.4	11.8				
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	SM 2540 C - 1997	180	184	181	179	178	183	184	180	181				
SOLIDS, TOTAL ‡		Tot. Sol., mg/L	EPA 160.3 - 1971	190	193	196	195	185	197	195	193	195				
TOTAL ORGANIC CARBON		TOC, mg/L	SM 5310 C - 2000	1.74	1.53	1.52	1.54	1.72	1.56	1.55	1.52	1.53				
OXYGEN DEMAND, CHEMICAL ‡		O, mg/L	EPA 410.4 - 1993	5.07	4.46	4.24	4.34	5.60	4.95	6.14	4.58	4.35				
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	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S				
NITROGEN, NITRITE	1	N, mg/L	EPA 300.0 2.1 1993	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S				
ORTHOPHOSPHATE		PO ₄ , mg/L	SM 4500 P E 1999	<0.06	0.468	0.534	0.529	<0.06	0.537	0.483	0.613	0.566				
PHOSPHATE, TOTAL ‡		PO ₄ , mg/L	SM 4500 P E 1999	<0.06	1.04	1.20	1.12	<0.06	1.18	1.06	1.31	1.19				
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

** Field pH for sites (24C2208 - 24C2211(1, 2A, 2B)) & (24C2204 - 24C2207(4, 5A, 5B))

O/S - Out of Service

COMPREHENSIVE CHEMICAL ANALYSIS
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WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES

LABORATORY ACCREDITATION NUMBER: 100228

2nd Quarter - 2024

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	Sample Date	4/1/2024	4/1/2024	4/1/2024	4/3/2024	4/1/2024	4/1/2024	4/1/2024	4/2/2024 - 4/3/2024	4/2/2024			
				LAB ID Nos.	24C2208	24C2210	24C2211	24C2262 - 24C2267	24C2204	24C2206	24C2207	24C2243 - 24C2245 24C2268 - 24C2269	24C2246 - 24C2250			
				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	52.5	63.4	55.7	50.5	66.5	62.2	62.1	57.9	56.3				
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	21.0	20.4	19.5	19.3	20.9	19.5	20.1	19.5	19.5				
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	23.5	25.0	24.6	24.6	23.6	24.9	24.9	24.7	24.9				
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	1.62	<1	<1	1.10	<1	<1	<1	1.78	1.68				
IRON	*300	Fe, µg/L	EPA 200.7 4.4 1994	46.3	2.06	3.26	6.96	54.7	2.81	2.63	6.61	30.8				
LEAD	**15.0	Pb, µg/L	EPA 200.9 3 2001	<1	<1	<1	<1	<1	<1	<1	1.26	1.18				
LITHIUM ‡		Li, µg/L	EPA 200.7 4.4 1994	1.09	1.86	2.43	1.96	1.12	2.23	2.03	2.03	1.88				
MANGANESE	*50	Mn, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	1.12	<1	<1	1.12	1.51				
MERCURY ‡	2	Hg, µg/L	EPA 245.1 3 1994	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20				
MOLYBDENUM		Mo, µg/L	EPA 200.8 5.4 1994	1.06	1.09	1.04	1.02	1.06	1.06	1.05	1.02	1.05				
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	1127	1240	1229	1250	1098	1227	1239	1205	1223				
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	121	122	116	118	122	114	119	118	120				
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	1.79	<1	<1	<1	1.49	<1	<1	<1	<1				
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	1.68	<1	9.04	1.42	<1	<1	21.6	18.4				

* Federal Primary/Secondary MCLs

** Action Level

TT - Treatment Technique

ND - not detected

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WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES

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3rd Quarter - 2024

Sample Date	8/5/2024	8/5/2024	8/5/2024	8/7/2024	8/5/2024	8/5/2024	8/5/2024	8/6/2024 - 8/7/24	8/6/2024
LAB ID Nos.	24C5555	24C5557	24C5558	24C5615-24C5620	24C5551	24C5553	24C5554	24C5593-24C5595 24C5613-24C5614	24C5596-24C5600

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	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	24	25	25	24	22	23	23	22	21
TURBIDITY	TT	NTU	SM 2130 B - 2001	0.4	0.10	0.10	0.20	0.5	0.10	0.10	0.15	0.10
THRESHOLD ODOR, STRAIGHT ‡	*3	TON	JWPP -0059 V	1 E	1 Cc	1 Cc	2 Cc	1 E	1 Cc	1 Cc	2 Cc	2 Cc
THRESHOLD ODOR, DECHLORINATED ‡	*3	TON	JWPP -0059 V	1 E	1 Mm	1 Mm	1 M	1 E	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	8.4	7.6	7.6	8.0	8.4	7.6	7.6	8.0	8.0
FREE CHLORINE RESIDUAL ‡		CL ₂ , mg/L	SM 4500-Cl D - 2000	ND	1.51	1.49	1.07	ND	1.55	1.64	1.25	1.08
SATURATION INDEX, LANGELIER ‡		UNITS +/-	SM 2330 B - 2000	0.53	-0.31	-0.27	-0.61	0.48	-0.35	-0.35	0.05	0.05
ALKALINITY, PHENOLPHTHALEIN		as CaCO ₃ , mg/L	SM 2320 B - 1997	2	0	0	0	2	0	0	0	0
ALKALINITY, TOTAL		as CaCO ₃ , mg/L	SM 2320 B - 1997	106	99.1	99.4	99.3	105	98.7	98.8	99.1	98.7
CONDUCTIVITY		uS/cm @25°C	SM 2510 B - 1997	298	303	303	308	294	302	302	304	302
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	14.1	16.0	16.3	15.6	13.8	16.0	16.0	15.8	16.0
FLUORIDE	4	F, mg/L	SM4500 F - C 1997	0.109	0.754	0.741	0.742	0.108	0.737	0.740	0.743	0.737
SULFATE	*250	SO ₄ , mg/L	EPA 300.0 2.1 1993	22.8	24.4	24.6	24.8	22.6	24.4	24.5	24.5	24.5
HARDNESS (Calc.)		as CaCO ₃ , mg/L	SM 2340 B - 1997	133	132	132	130	131	133	132	132	134
CALCIUM		Ca, mg/L	EPA 200.7 4.4 1994	33.3	32.9	32.9	32.3	32.7	33.1	32.9	32.9	33.1
MAGNESIUM ‡		Mg, mg/L	EPA 200.7 4.4 1994	12.2	12.1	12.1	12.0	12.0	12.2	12.1	12.2	12.3
POTASSIUM ‡		K, mg/L	EPA 200.7 4.4 1994	1.18	1.20	1.19	1.21	1.18	1.21	1.22	1.21	1.21
SODIUM		Na, mg/L	EPA 200.7 4.4 1994	8.30	8.19	8.19	8.49	8.03	8.21	8.17	8.42	8.60
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	SM 2540 C - 1997	177	180	186	189	183	193	192	182	187
SOLIDS, TOTAL ‡		Tot. Sol., mg/L	EPA 160.3 - 1971	190	202	201	194	184	187	195	197	194
TOTAL ORGANIC CARBON		TOC, mg/L	SM 5310 C - 2000	1.86	1.83	1.79	1.81	1.88	1.82	1.80	1.74	1.64
OXYGEN DEMAND, CHEMICAL ‡		O, mg/L	EPA 410.4 - 1993	6.24	5.86	6.23	5.48	5.66	5.08	6.28	3.96	3.25
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	0.285	0.269	0.272	<0.25	0.264	0.256	0.257	0.250	0.256
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		PO ₄ , mg/L	SM 4500 P E 1999	<0.06	0.483	0.499	0.547	<0.06	0.578	0.596	0.627	0.606
PHOSPHATE, TOTAL ‡		PO ₄ , mg/L	SM 4500 P E 1999	0.132	1.12	1.07	1.08	0.112	1.30	1.25	1.27	1.23
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

** Field pH for sites (24C5555 - 24C5558(1, 2A, 2B)) & (24C5551 - 24C5554(4, 5A, 5B))

O/S - Out of Service

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 - 2024

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	Sample Date	8/5/2024	8/5/2024	8/5/2024	8/7/2024	8/5/2024	8/5/2024	8/5/2024	8/6/2024 - 8/7/24	8/6/2024			
				LAB ID Nos.	24C5555	24C5557	24C5558	24C5615 - 24C5620	24C5551	24C5553	24C5554	24C5593-24C5595 24C5613-24C5614	24C5596-24C5600			
				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	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	14.5	225	224	187	37.7	197	197	172	163				
ANTIMONY	6	Sb, µg/L	EPA 200.8 5.4 1994	12.4	11.9	12.2	16.9	19.2	12.1	12.1	10.4	6.31				
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	21.1	20.6	20.7	21.2	20.6	20.4	20.5	20.8	20.7				
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	23.5	23.5	23.6	23.3	24.3	23.7	23.5	23.6	23.6				
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	<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 200.8 5.4 1994	2.14	1.24	<1	1.19	<1	1.05	1.21	1.09	2.01				
IRON	*300	Fe, µg/L	EPA 200.7 4.4 1994	6.55	1.39	1.33	6.75	16.5	1.79	1.64	3.36	6.98				
LEAD	**15.0	Pb, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	1.44	<1	<1	<1	1.88	1.77				
LITHIUM ‡		Li, µg/L	EPA 200.7 4.4 1994	2.75	2.75	2.72	2.28	2.51	2.67	2.65	2.49	2.54				
MANGANESE	*50	Mn, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	1.86	<1	<1	1.12	1.05				
MERCURY ‡	2	Hg, µg/L	EPA 245.1 3 1994	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20				
MOLYBDENUM		Mo, µg/L	EPA 200.8 5.4 1994	1.10	1.12	1.10	1.10	1.06	1.12	1.08	1.08	1.08				
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	714	868	861	863	781	904	903	892	909				
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	120	119	117	119	117	119	119	119	119				
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	<1	<1	<1	<1	<1	<1	<1	<1				
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 200.8 5.4 1994	<1	<1	<1	6.84	2.60	<1	<1	17.0	9.25				

* Federal Primary/Secondary MCLs

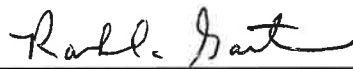
** Action Level

TT - Treatment Technique

ND - not detected

Distribution samples results are averages

‡ - Non-NELAP Accredited



CHIEF WATER CHEMIST



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

4th Quarter - 2024

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	Sample Date	10/7/2024	10/7/2024	10/7/2024	10/8/2024	10/7/2024	10/7/2024	10/7/2024	10/9/2024-10/8/2024	10/9/2024		
				LAB ID Nos.	24C6992	24C6994	24C6995	24C7031 - 24C7035	24C6988	24C6990	24C6991	24C7053-24C7055 24C7036-24C7037	24C7056 - 24C7060		
				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	RAW LAKE	OUTLETS		***DISTRIBUTION				
	73rd Street	79th Street	SOUTH		North	Central	Central	North							
TEMPERATURE †		°C	EPA 170.1	20	20	20	21	19	19	19	22	21			
TURBIDITY	TT	NTU	SM 2130 B - 23rd Ed	3.2	0.10	0.10	0.20	2.2	0.10	0.10	0.15	0.10			
THRESHOLD ODOR, STRAIGHT †	*3	TON	JWPP -0059 V	1 Mm	1 Cc	1 Cc	1 Cc	2 Mm	1 Cc	1 Cc	1 Cc	1 Cc			
THRESHOLD ODOR, DECHLORINATED †	*3	TON	JWPP -0059 V	1 M	1 M	1 M	1 Mm	1 Mm	1 M	1 M	1 M	1 M			
COLOR‡	*15	Apparent CU	SM 2120 C	23.1	<5	<5	<5	12.7	<5	<5	<5	6			
pH **	*6.5-8.5	pH Unit	EPA 150.1 1982	8.4	7.8	7.8	7.9	8.4	7.8	7.8	8.0	7.9			
FREE CHLORINE RESIDUAL †		CL ₂ , mg/L	SM 4500-Cl D - 2000	ND	1.56	1.65	0.98	ND	1.60	1.59	1.02	1.10			
SATURATION INDEX, LANGELIER †		UNITS +/-	SM 2330 B - 2000	0.37	-0.40	-0.39	-0.07	0.35	-0.43	-0.44	0.04	-0.01			
ALKALINITY, PHENOLPHTHALEIN		as CaCO ₃ , mg/L	SM 2320 B - 23rd Ed	1	0	0	0	1	0	0	0	0			
ALKALINITY, TOTAL		as CaCO ₃ , mg/L	SM 2320 B - 23rd Ed	109	101	101	101	109	102	102	103	102			
CONDUCTIVITY		uS/cm @25°C	SM 2510 B - 23rd Ed	304	313	313	311	308	311	310	314	315			
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	13.8	16.2	17.2	16.4	14.0	15.9	16.0	16.3	16.2			
FLUORIDE	4	F, mg/L	SM4500 F - C 1997	0.108	0.715	0.704	0.706	0.110	0.723	0.727	0.723	0.725			
SULFATE	*250	SO ₄ , mg/L	EPA 300.0 2.1 1993	22.5	26.2	26.4	27.3	23.2	25.0	25.1	25.6	25.6			
HARDNESS (Calc.)		as CaCO ₃ , mg/L	SM 2340 B - 23rd Ed	137	138	138	138	138	137	137	138	137			
CALCIUM		Ca, mg/L	EPA 200.7 4.4 1994	34.7	35.0	35.0	35.1	34.8	34.6	34.8	35.0	34.8			
MAGNESIUM †		Mg, mg/L	EPA 200.7 4.4 1994	12.3	12.3	12.2	12.2	12.4	12.2	12.2	12.3	12.3			
POTASSIUM †		K, mg/L	EPA 200.7 4.4 1994	1.26	1.33	1.31	1.30	1.26	1.29	1.29	1.30	1.30			
SODIUM		Na, mg/L	EPA 200.7 4.4 1994	7.97	8.56	8.55	8.47	8.11	8.38	8.38	8.56	8.57			
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	SM 2540 C - 23rd Ed	185	179	177	184	184	182	187	183	178			
SOLIDS, TOTAL †		Tot. Sol., mg/L	EPA 160.3 - 1971	181	188	190	192	187	190	192	191	192			
TOTAL ORGANIC CARBON		TOC, mg/L	SM 5310 C - 23rd Ed	1.57	1.47	1.52	1.62	1.60	1.51	1.51	1.67	1.72			
OXYGEN DEMAND, CHEMICAL †		O, mg/L	EPA 410.4 - 1993	5.94	4.58	4.40	4.19	7.43	5.10	4.69	4.58	4.44			
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	0.277	0.271	0.281	0.272	0.275	0.260	0.261	0.264	0.265			
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		PO ₄ , mg/L	SM 4500 P E 23rd Ed	<0.06	0.469	0.495	0.556	<0.06	0.531	0.547	0.676	0.633			
PHOSPHATE, TOTAL †		PO ₄ , mg/L	SM 4500 P E 23rd Ed	0.08	0.99	1.04	1.04	<0.06	1.18	1.16	1.30	1.23			
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

Non-NELAP Accredited - SM5310 B (North & Central Distribution)

Cyanide - LFM did not meet QC Criteria

O/S - Out of Service

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

4th Quarter - 2024

PARAMETER	IEPA MCL	DETERMINED AS	METHOD	Sample Date	10/7/2024	10/7/2024	10/7/2024	10/8/2024	10/7/2024	10/7/2024	10/7/2024	10/9/2024-10/8/2024	10/9/2024		
				LAB ID Nos.	24C6992	24C6994	24C6995	24C7031 - 24C7035	24C6988	24C6990	24C6991	24C7053-24C7055 24C7036-24C7037	24C7056 - 24C7060		
				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	41.0	132	132	126	53.8	159	157	130	125			
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	18.6	19.6	19.4	19.5	19.5	19.2	19.0	18.8	18.8			
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	23.8	25.7	25.9	25.6	24.2	25.4	25.6	25.7	25.8			
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	<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 200.8 5.4 1994	2.88	<1	1.05	1.12	<1	<1	<1	1.29	1.21			
IRON	*300	Fe, µg/L	EPA 200.7 4.4 1994	56.0	<1	1.75	21.0	59.4	<1	<1	35.4	3.38			
LEAD	**15.0	Pb, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	1.06	<1	<1	<1	1.94	1.12			
LITHIUM ‡		Li, µg/L	EPA 200.7 4.4 1994	1.57	2.27	2.32	2.21	1.63	2.34	2.12	2.17	1.99			
MANGANESE	*50	Mn, µg/L	EPA 200.8 5.4 1994	3.02	<1	<1	1.09	2.73	<1	<1	1.57	<1			
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	1.05	1.06	1.01	<1	<1	<1	1.01	1.01			
NICKEL		Ni, µg/L	EPA 200.8 5.4 1994	<1	<1	<1	<1	<1	<1	<1	1.23	1.05			
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	1193	1244	1240	1240	1284	1222	1219	1229	1233			
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	102	110	109	108	104	108	106	108	107			
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	1.76	<1	<1	<1	1.95	<1	<1	<1	<1			
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 200.8 5.4 1994	1.20	<1	<1	8.74	1.76	<1	<1	54.9	36.7			

* Federal Primary/Secondary MCLs

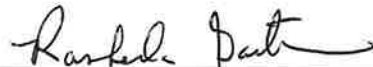
** Action Level

TT - Treatment Technique

ND - not detected

Distribution samples results are averages

‡ - Non-NELAP Accredited


 CHIEF WATER CHEMIST


 DIRECTOR OF LABORATORIES