

**COMPREHENSIVE CHEMICAL ANALYSIS  
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY  
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES**

SAMPLES COLLECTED FEBRUARY 23, 2004

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	SOUTH WATER PURIFICATION PLANT					JARDINE WATER PURIFICATION PLANT				
				RAW LAKE	OUTLETS		**DISTRIBUTION SOUTH	RAW LAKE	OUTLETS		***DISTRIBUTION		
					7 <sup>th</sup> Street	7 <sup>th</sup> Street			Central	North		Central	North
TEMPERATURE		°C	00010	2	3	3	4	2	3	2	3	5	
TURBIDITY	0.5	N.T.U.	82079	1.10	0.15	0.15	0.15	1.75	0.15	0.15	0.10	0.10	
THRESHOLD ODOR, STRAIGHT	*3	T.O.N	00086	1M	1Cc	1Cc	1Cc	1Df	1Cc	1Cc	1Cc	1Cc	
THRESHOLD ODOR, DECHLORINATED	*3	T.O.N.			1Mm	1Mm	1M		1Mm	1Mm	1Mm	1Mm	
COLOR	*15	Pt.-Co. Units	00080	1	0	0	0	1	0	0	0	0	
pH	*6.5-8.5	STD. Units	00040	8.11	7.47	7.47	7.55	8.15	7.47	7.45	7.55	7.60	
FREE CHLORINE RESIDUAL		Cl <sub>2</sub> , mg/L	50064	0.00	0.87	0.90	0.64	0.00	0.93	0.91	0.64	0.56	
SATURATION INDEX, LANGELIER		UNITS +/-		0.21	-0.46	-0.46	-0.38	0.26	-0.40	-0.40	-0.35	-0.30	
ALKALINITY, PHENOLPHTHALEIN		CaCO <sub>3</sub> , mg/L	00415	0	0	0	0	0	0	0	0	0	
ALKALINITY, TOTAL		CaCO <sub>3</sub> , mg/L	00410	116	107	107	107	118	110	116	111	111	
BROMIDE		Br, mg/L	71870	0.023	<0.006	<0.006	<0.006	0.025	<0.006	<0.006	<0.006	<0.006	
CHLORIDE	*250	Cl, mg/L	00940	12.0	13.4	13.5	13.5	12.8	14.8	14.8	15.0	15.2	
FLUORIDE	4	F, mg/L	00951	0.17	0.98	0.92	0.94	0.17	1.02	1.04	1.03	1.03	
SULFATE	*250	SO <sub>4</sub> , mg/L	00945	23.5	30.1	30.0	29.6	23.9	30.3	30.4	30.3	30.3	
HARDNESS		CaCO <sub>3</sub> , mg/L	00900	155	154	153	146	159	156	159	159	159	
CALCIUM		Ca, mg/L	00916	39.5	40.4	40.4	40.2	40.2	42.1	41.8	42.4	42.0	
MAGNESIUM		Mg, mg/L	00927	12.5	12.8	12.8	12.9	12.9	12.7	13.1	13.1	13.1	
POTASSIUM		K, mg/L	00937	1.6	1.7	1.7	1.5	1.7	1.7	1.5	1.3	1.2	
SODIUM		Na, mg/L	00006	6.2	6.7	6.7	6.6	6.5	7.2	7.1	7.1	7.3	
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	00150	160	167	160	163	163	174	172	170	171	
SOLIDS, TOTAL		Tot. Sol., mg/L	00500	175	188	183	182	179	185	191	192	191	
TOTAL ORGANIC CARBON		NPOC, mg/L	00680	1.84	1.73	2.00	1.73	1.91	1.60	1.59	1.68	2.02	
OXYGEN DEMAND, CHEMICAL		O, mg/L	00335	<5	<5	<5	<5	<5	<5	<5	<5	<5	
NITROGEN, AMMONIA		N, mg/L	00610	0.04	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	
NITROGEN, NITRATE	10	N, mg/L	00620	0.365	0.351	0.353	0.353	0.371	0.382	0.382	0.384	0.385	
NITROGEN, NITRITE	1	N, mg/L	00615	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
NITROGEN, TOTAL KJELDAHL		N, mg/L	00625	0.177	0.100	0.123	0.108	0.159	0.132	0.123	0.115	0.126	
ORTHOPHOSPHATE		PO <sub>4</sub> , mg/L	00660	<0.05	0.488	0.512	0.510	<0.05	0.485	0.459	0.514	0.501	
PHOSPHATE, TOTAL		PO <sub>4</sub> , mg/L	00650	<0.05	1.119	1.329	1.137	<0.05	1.110	0.989	1.087	1.065	
CYANIDE, TOTAL	0.2	CN, mg/L	00720	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
FOAMING AGENT	*0.5	MBAS, mg/L	38260	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
PHENOLICS, TOTAL		Phenol, µg/L	32730	<1	<1	<1	<1	<1	<1	<1	<1	<1	
RADIOACTIVITY, GROSS ALPHA	15	pc/iL	01501	<1	<1	<1	<1	<1	<1	<1	<1	<1	
RADIOACTIVITY, GROSS BETA	50	pc/iL	03501	1.2	1.0	1.1	2.3	1.8	2.5	1.9	1.3	1.4	

\* Federal/State Secondary MCL's      \*\* Action Level      \*\*\*Distribution samples are composited.

**COMPREHENSIVE CHEMICAL ANALYSIS  
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY  
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES**

SAMPLES COLLECTED FEBRUARY 23, 2004

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				RAW LAKE	OUTLETS		***DISTRIBUTION South	RAW LAKE	OUTLETS		***DISTRIBUTION Central	North
					73rd Street	79th Street			Central	North		
ALUMINUM		Al, µg/L	01105	14	34	32	40	32	32	35	20	30
ANTIMONY	6	Sb, µg/L	01268	<2	<2	<2	<2	<2	<2	<2	<2	<2
ARSENIC	50	As, µg/L	01002	<3	<3	<3	<3	<3	<3	<3	<3	<3
BARIUM	2000	Ba, µg/L	01007	27	26	26	26	28	26	27	26	26
BERYLLIUM	4	Be, µg/L	01012	<2	<2	<2	<2	<2	<2	<2	<2	<2
BORON		B, µg/L	01022	12	29	16	13	16	3	3	12	27
CADMIUM	5	Cd, µg/L	01027	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM	100	Cr, µg/L	01034	1	<1	<1	2	<1	<1	<1	1	<1
COBALT		Co, µg/L	01037	<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	01042	<3	<3	<3	<3	<3	<3	<3	<3	<3
IRON	*300	Fe, µg/L	01045	14	<7	<7	<7	31	<7	<7	<7	<7
LEAD	**15	Pb, µg/L	01051	<3	<3	<3	<3	<3	<3	<3	<3	<3
LITHIUM		Li, µg/L	01132	<2	<2	<2	<2	<2	<2	<2	<2	<2
MANGANESE	*50	Mn, µg/L	01055	<8	<8	<8	<8	<8	<8	<8	<8	<8
MERCURY	2	Hg, µg/L	71900	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MOLYBDENUM		Mo, µg/L	01062	<10	<10	<10	<10	<10	<10	<10	<10	<10
NICKEL	100	Ni, µg/L	01067	<2	<2	<2	<2	2	<2	<2	<2	<2
SELENIUM	50	Se, µg/L	01147	<2	<2	<2	<2	<2	<2	<2	<2	<2
SILICON		Si, µg/L	01142	880	1092	1078	1099	1004	1159	1200	1213	1177
SILVER	*100	Ag, µg/L	01077	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM		Sr, µg/L	01082	121	120	122	119	121	121	120	122	121
THALLIUM	2	Tl, µg/L	01059	<2	<2	<2	<2	<2	<2	<2	<2	<2
TITANIUM		Ti, µg/L	01152	3	8	15	8	<3	<3	16	<3	12
VANADIUM		V, µg/L	00985	15	<3	3	22	9	10	21	<3	9
ZINC	*5000	Zn, µg/L	01092	<7	<7	<7	<7	<7	<7	<7	<7	<7

\* Federal/State Secondary MCL's

\*\* Action Level

\*\*\* Distribution samples are composited.

*Harold C. ...*  
CHIEF WATER CHEMIST

*DA S ...*  
DIRECTOR, WATER PURIFICATION LABORATORIES

*John ...*  
DEPUTY COMMISSIONER

**COMPREHENSIVE CHEMICAL ANALYSIS  
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY  
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES**

SAMPLES COLLECTED : May 11, 2004

Revised Corrected on 7/21/04

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT					
				RAW LAKE	OUTLETS		***DISTRIBUTION SOUTH	RAW LAKE	OUTLETS		***DISTRIBUTION CENTRAL	***DISTRIBUTION NORTH	
					73rd Street	79th Street			Central	North			Central
TEMPERATURE		°C	00010	13	14	14	14	13	14	14	14	14	14
TURBIDITY	0.5	NTU	82079	0.70	0.15	0.20	0.15	1.35	0.15	0.15	0.15	0.15	0.20
THRESHOLD ODOR, STRAIGHT	*3	T.O.N	00086	1M	1Cc	1Cc	1Cc	1M	1Cc	1Cc	1Cc	1Cc	1Cc
THRESHOLD ODOR, DECHLORINATED	*3	T.O.N.			1M	1M	1M		1M	1M	1M	1M	1M
COLOR	*15	Pt-Co. Units	00080	1	0	0	0	0	0	0	0	0	0
pH	*6.5-8.5	STD. Units	00040	8.25	7.60	7.62	7.63	8.20	7.54	7.56	7.56	7.65	7.65
FREE CHLORINE RESIDUAL		CL <sub>2</sub> , mg/L	50064	0.00	0.99	0.96	0.61	0.00	0.95	0.97	0.63	0.63	0.56
SATURATION INDEX, LANGELIER		UNITS +/-		0.37	-0.33	-0.29	-0.30	0.33	-0.37	-0.37	-0.37	-0.26	-0.29
ALKALINITY, PHENOLPHTHALEIN		CaCO <sub>3</sub> , mg/L	00415	0	0	0	0	0	0	0	0	0	0
ALKALINITY, TOTAL		CaCO <sub>3</sub> , mg/L	00410	111	102	103	103	114	105	104	104	104	105
BROMIDE		Br, mg/L	71870	0.025	<0.006	<0.006	<0.006	0.024	<0.006	<0.006	<0.006	<0.006	<0.006
CHLORIDE	*250	Cl, mg/L	00940	13.1	14.4	14.5	15.0	17.3	18.7	18.7	18.7	17.2	18.8
FLUORIDE	4	F, mg/L	00951	0.15	0.92	0.93	0.92	0.15	0.88	0.88	0.88	0.90	0.90
SULFATE	*250	SO <sub>4</sub> , mg/L	00945	22.5	26.8	26.6	26.5	23.5	29.0	28.6	27.9	27.9	28.2
HARDNESS		CaCO <sub>3</sub> , mg/L	00900	140	139	133	141	139	144	138	133	133	139
CALCIUM		Ca, mg/L	00916	33.1	32.4	32.5	33.2	33.6	33.5	33.5	33.5	33.5	33.8
MAGNESIUM		Mg, mg/L	00927	11.1	11.1	11.3	11.3	11.7	11.4	11.5	11.5	11.5	11.4
POTASSIUM		K, mg/L	00937	1.5	1.2	1.2	1.4	1.6	1.7	1.3	1.6	1.6	1.2
SODIUM		Na, mg/L	00006	7.0	7.0	7.1	7.4	9.3	9.3	9.4	8.5	8.5	9.4
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	00150	176	176	181	174	184	189	182	181	181	177
SOLIDS, TOTAL		Tot. Sol., mg/L	00500	189	191	192	193	197	204	204	204	201	202
TOTAL ORGANIC CARBON		NPOC, mg/L	00680	1.65	1.39	1.40	1.56	2.37	1.46	1.43	1.43	1.81	1.72
OXYGEN DEMAND, CHEMICAL		O, mg/L	00335	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
NITROGEN, AMMONIA		N, mg/L	00610	0.03	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.02	0.02
NITROGEN, NITRATE	10	N, mg/L	00620	0.304	0.294	0.293	0.306	0.362	0.352	0.353	0.336	0.336	0.355
NITROGEN, NITRITE	1	N, mg/L	00615	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NITROGEN, TOTAL KJELDAHL		N, mg/L	00625	0.174	0.195	0.174	<0.10	0.162	0.137	0.140	<0.10	<0.10	0.227
ORTHOPHOSPHATE		PO <sub>4</sub> , mg/L	00660	0.053	0.558	0.560	0.552	<0.05	0.550	0.617	0.609	0.599	0.599
PHOSPHATE, TOTAL		PO <sub>4</sub> , mg/L	00650	0.059	0.625	0.739	0.755	0.051	0.720	0.635	0.776	0.753	0.753
CYANIDE, TOTAL	0.2	CN, mg/L	00720	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FOAMING AGENT	*0.5	MBAS, mg/L	38260	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
PHENOLICS, TOTAL		Phenol, µg/L	32730	<1	<1	1.1	<1	<1	<1	<1	<1	<1	<1
RADIOACTIVITY, GROSS ALPHA	15	pCi/L	01501	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
RADIOACTIVITY, GROSS BETA	50	pCi/L	03501	1.1	1.6	<1	2.0	<1	<1	<1	<1	<1	<1

\* Federal/State Secondary MCL's

\*\* Action Level

\*\*\*Distribution samples are composited

COMPREHENSIVE CHEMICAL ANALYSIS  
 CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY  
 WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES

SAMPLES COLLECTED : May 11, 2004

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				RAW LAKE	OUTLETS		***DISTRIBUTION South	RAW LAKE	OUTLETS		***DISTRIBUTION Central	North
					73rd Street	79th Street			Central	North		
ALUMINUM		Al, µg/L	01105	18	76	75	58	34	59	55	44	55
ANTIMONY	6	Sb, µg/L	01268	<1	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	50	As, µg/L	01002	<3	<3	<3	<3	<3	<3	<3	<3	<3
BARIUM	2000	Ba, µg/L	01007	18	16	16	17	16	16	17	16	16
BERYLLIUM	4	Be, µg/L	01012	<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON		B, µg/L	01022	25	24	23	20	25	21	29	21	35
CADMIUM	5	Cd, µg/L	01027	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM	100	Cr, µg/L	01034	<1	<1	<1	<1	12	<1	<1	<1	<1
COBALT		Co, µg/L	01037	<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	01042	<3	<3	<3	<3	<3	<3	<3	<3	<3
IRON	*300	Fe, µg/L	01045	13	<7	<7	<7	36	<7	<7	<7	21
LEAD	**15	Pb, µg/L	01051	<3	<3	<3	<3	<3	<3	<3	<3	<3
LITHIUM		Li, µg/L	01132	<2	2	<2	<2	<2	<2	<2	<2	<2
MANGANESE	*50	Mn, µg/L	01055	<8	<8	<8	<8	<8	<8	<8	<8	<8
MERCURY	2	Hg, µg/L	71900	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MOLYBDENUM		Mo, µg/L	01062	<10	<10	<10	<10	<10	<10	<10	<10	<10
NICKEL	100	Ni, µg/L	01067	<2	<2	<2	<2	<2	<2	<2	<2	<2
SELENIUM	50	Se, µg/L	01147	<2	<2	<2	<2	<2	<2	<2	<2	<2
SILICON		Si, µg/L	01142	82	257	240	216	71	142	143	176	142
SILVER	*100	Ag, µg/L	01077	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM		Sr, µg/L	01082	122	122	120	121	129	130	131	126	127
THALLIUM	2	Tl, µg/L	01059	<2	<2	<2	<2	<2	<2	<2	<2	<2
TITANIUM		Ti, µg/L	01152	5	<3	5	<3	<3	<3	<3	<3	<3
VANADIUM		V, µg/L	00985	4	<3	<3	5	<3	4	<3	3	<3
ZINC	*5000	Zn, µg/L	01092	<4	<4	14	7	<4	<4	<4	<4	21

\* Federal/State Secondary MCL's

\*\* Action Level

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*Shirley D. Corvino*  
 CHIEF WATER CHEMIST

*BO S*  
 DIRECTOR, WATER PURIFICATION LABORATORIES

*John Sparty*  
 DEPUTY COMMISSIONER

**COMPREHENSIVE CHEMICAL ANALYSIS  
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY  
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES**

SAMPLES COLLECTED:AUGUST 23, 2004

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	SOUTH WATER PURIFICATION PLANT					JARDINE WATER PURIFICATION PLANT					
				RAW LAKE	OUTLETS		***DISTRIBUTION SOUTH	RAW LAKE	OUTLETS		***DISTRIBUTION Central	North	Central	North
					73rd Street	79th Street			Central	North				
TEMPERATURE		*C	00010	20	21	21	21	20	21	21	22	22	23	
TURBIDITY	0.5	N.T.U.	82079	0.55	0.25	0.20	0.30	1.05	0.15	0.15	0.20	0.20	0.30	
THRESHOLD ODOR, STRAIGHT	*3	T.O.N	00086	1M	1Cc	1Cc	1Cc	1M	1Cc	1Cc	1Cc	1Cc	1Cc	
THRESHOLD ODOR, DECHLORINATED	*3	T.O.N			1M	1M	1M		1M	1M	1M	1M	1M	
COLOR	*15	Pl-Co. Units	00080	0	0	0	0	0	0	0	0	0	0	
pH	*6.5-8.5	STD. Units	00040	8.22	7.47	7.46	7.73	8.35	7.62	7.65	7.68	7.68	7.70	
FREE CHLORINE RESIDUAL		CL <sub>2</sub> , mg/L	50064	0.00	0.86	0.89	0.49	0.00	0.92	0.94	0.57	0.57	0.50	
SATURATION INDEX, LANGELIER		UNITS +/-		0.38	-0.35	-0.42	-0.18	0.46	-0.28	-0.25	-0.23	-0.23	-0.22	
ALKALINITY, PHENOLPHTHALEIN		CaCO <sub>3</sub> , mg/L	00415	1	0	0	0	1	0	0	0	0	0	
ALKALINITY, TOTAL		CaCO <sub>3</sub> , mg/L	00410	107	94	96	98	107	99	99	98	98	98	
BROMIDE		Br, mg/L	71870	0.025	<0.006	<0.006	<0.006	0.027	<0.006	<0.006	<0.006	<0.006	<0.006	
CHLORIDE	*250	Cl, mg/L	00940	11.8	13.4	13.4	13.3	11.5	13.1	13.1	13.2	13.2	13.2	
FLUORIDE	4	F, mg/L	00951	0.16	0.95	0.95	0.94	0.15	0.95	0.96	0.95	0.95	0.94	
SULFATE	*250	SO <sub>4</sub> , mg/L	00945	21.8	27.8	27.7	27.3	21.5	26.1	26.0	26.0	26.0	25.9	
HARDNESS		CaCO <sub>3</sub> , mg/L	00900	137	137	137	138	137	141	139	139	139	136	
CALCIUM		Ca, mg/L	00916	35.5	35.3	35.2	35.2	35.1	34.8	34.9	35.0	35.0	34.4	
MAGNESIUM		Mg, mg/L	00927	10.8	11.1	11.1	10.9	11.0	10.7	10.9	10.8	10.8	10.7	
POTASSIUM		K, mg/L	00937	1.6	1.4	1.4	1.2	1.0	1.5	1.3	1.3	1.3	1.3	
SODIUM		Na, mg/L	00006	6.4	6.5	6.4	6.4	5.9	6.1	6.2	6.2	6.2	6.1	
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	00150	169	180	173	175	172	175	176	173	173	174	
SOLIDS, TOTAL		Tot. Sol., mg/L	00500	183	192	193	193	187	189	192	192	192	189	
TOTAL ORGANIC CARBON		NPOC, mg/L	00680	2.08	1.70	1.69	2.13	1.80	1.59	1.61	1.99	1.99	1.60	
OXYGEN DEMAND, CHEMICAL		O, mg/L	00335	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
NITROGEN, AMMONIA		N, mg/L	00610	0.03	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.03	
NITROGEN, NITRATE	10	N, mg/L	00620	0.243	0.226	0.226	0.228	0.206	0.206	0.203	0.276	0.276	0.228	
NITROGEN, NITRITE	1	N, mg/L	00615	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
NITROGEN, TOTAL KJELDAHL		N, mg/L	00625	0.151	0.193	0.175	0.148	0.177	0.148	0.156	0.135	0.135	0.208	
ORTHOPHOSPHATE		PO <sub>4</sub> , mg/L	00660	<0.05	0.453	0.490	0.531	<0.05	0.539	0.481	0.533	0.533	0.516	
PHOSPHATE, TOTAL		PO <sub>4</sub> , mg/L	00650	<0.05	0.804	0.745	0.910	<0.05	0.847	0.769	0.997	0.997	0.711	
CYANIDE, TOTAL	0.2	CN, mg/L	00720	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
FOAMING AGENT	*0.5	MBAS, mg/L	38260	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	
PHENOLICS, TOTAL		Phenol, µg/L	32730	1.4	1.5	1.7	1.2	1.0	1.7	1.1	<1	<1	<1	
RADIOACTIVITY, GROSS ALPHA	15	pCi/L	01501	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
RADIOACTIVITY, GROSS BETA	50	pCi/L	03501	<1	1.8	2.8	1.4	1.3	2.5	2.0	3.1	3.1	2.5	

\* Federal/State Secondary MCL's

\*\* Action Level

\*\*\*Distribution samples are composited.

**COMPREHENSIVE CHEMICAL ANALYSIS  
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY  
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES**

SAMPLES COLLECTED: AUGUST 23, 2004

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
					73rd Street	79th Street			Central	North		Central
ALUMINUM		Al, µg/L	01105	12	136	126	108	20	102	112	85	101
ANTIMONY	6	Sb, µg/L	01268	<1	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	50	As, µg/L	01002	<3	<3	<3	<3	<3	<3	<3	<3	<3
BARIUM	2000	Ba, µg/L	01007	12	14	13	13	13	12	12	11	11
BERYLLIUM	4	Be, µg/L	01012	<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON		B, µg/L	01022	21	17	31	18	25	20	19	18	26
CADMIUM	5	Cd, µg/L	01027	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM	100	Cr, µg/L	01034	6	<1	<1	<1	1	<1	<1	<1	<1
COBALT		Co, µg/L	01037	<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	01042	<3	<3	<3	<3	3	<3	<3	<3	<3
IRON	*300	Fe, µg/L	01045	<7	<7	<7	8	24	<7	<7	<7	60
LEAD	**15	Pb, µg/L	01051	<3	<3	<3	<3	<3	<3	<3	<3	<3
LITHIUM		Li, µg/L	01132	<2	<2	<2	<2	<2	<2	<2	<2	2
MANGANESE	*50	Mn, µg/L	01055	<5	<5	<5	<5	<5	<5	<5	<5	<5
MERCURY	2	Hg, µg/L	71900	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MOLYBDENUM		Mo, µg/L	01062	<10	<10	<10	<10	<10	<10	<10	<10	<10
NICKEL	100	Ni, µg/L	01067	<2	<2	<2	<2	3	<2	<2	<2	<2
SELENIUM	50	Se, µg/L	01147	<2	<2	<2	<2	<2	<2	<2	<2	<2
SILICON		Si, µg/L	01142	455	660	650	742	501	694	694	725	712
SILVER	*100	Ag, µg/L	01077	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM		Sr, µg/L	01082	132	135	135	132	133	131	133	130	135
THALLIUM	2	Tl, µg/L	01059	<2	<2	<2	<2	<2	<2	<2	<2	<2
TITANIUM		Ti, µg/L	01152	<3	<3	<3	<3	<3	<3	<3	<3	<3
VANADIUM		V, µg/L	00985	<3	<3	<3	<3	<3	<3	<3	<3	<3
ZINC	*5000	Zn, µg/L	01092	<4	<4	15	<4	<4	<4	<4	15	<4

\* Federal/State Secondary MCL's      \*\* Action Level      \*\*\* Distribution samples are composted.

*Harold D. Ciccarone*  
CHIEF WATER CHEMIST

*De S. St*  
DIRECTOR, WATER PURIFICATION LABORATORIES

*De S. St*  
DEPUTY COMMISSIONER

**COMPREHENSIVE CHEMICAL ANALYSIS  
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY  
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES**

SAMPLES COLLECTED: November 15, 2004

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				RAW LAKE	OUTLETS		***DISTRIBUTION SOUTH	RAW LAKE	OUTLETS		***DISTRIBUTION Central North Central North	
					73rd Street	79th Street			Central	North		Central
TEMPERATURE		°C	00010	13	11	11	13	9	15	12	14	16
TURBIDITY	0.5	N.T.U.	82079	2.15	0.15	0.20	0.20	4.05	0.15	0.15	0.15	0.25
THRESHOLD ODOR, STRAIGHT	*3	T.O.N	00086	1M	1Cc	1Cc	1Cc	1M	1Cc	1Cc	1Cc	1Cc
THRESHOLD ODOR, DECHLORINATED	*3	T.O.N.			1M	1M	1M		1M	1M	1M	1M
COLOR	*15	Pt.-Co. Units	00080	0	0	0	0	0	0	0	0	0
pH	*6.5-8.5	STD. Units	00040	8.20	7.45	7.43	7.51	8.10	7.48	7.47	7.62	7.62
FREE CHLORINE RESIDUAL		CL <sub>2</sub> , mg/L	50064	0.00	0.95	0.96	0.70	0.00	0.92	0.89	0.70	0.58
SATURATION INDEX, LANGELIER		UNITS +/-		0.23	-0.55	-0.57	-0.48	0.16	-0.50	-0.51	-0.39	-0.35
ALKALINITY, PHENOLPHTHALEIN		CaCO <sub>3</sub> , mg/L	00415	0	0	0	0	0	0	0	0	0
ALKALINITY, TOTAL		CaCO <sub>3</sub> , mg/L	00410	111	101	101	101	112	102	102	99	102
BROMIDE		Br, mg/L	71870	0.028	<0.006	<0.006	<0.006	0.028	<0.006	<0.006	<0.006	<0.006
CHLORIDE	*250	Cl, mg/L	00940	11.3	15.0	15.0	14.4	11.9	13.6	13.5	13.5	13.4
FLUORIDE	4	F, mg/L	00951	0.14	0.80	1.01	0.91	0.14	0.89	0.88	0.89	0.91
SULFATE	*250	SO <sub>4</sub> , mg/L	00945	22.2	31.4	31.1	30.7	23.2	29.3	29.3	29.0	28.8
HARDNESS		CaCO <sub>3</sub> , mg/L	00900	149	151	152	152	153	159	154	152	150
CALCIUM		Ca, mg/L	00916	35.2	36.0	36.3	34.6	35.0	34.7	34.8	34.2	33.9
MAGNESIUM		Mg, mg/L	00927	11.8	11.9	11.9	11.0	11.6	11.3	11.2	10.8	11.1
POTASSIUM		K, mg/L	00937	1.0	1.8	1.6	1.4	1.1	1.4	1.3	1.0	1.5
SODIUM		Na, mg/L	00006	6.1	7.6	7.6	6.9	6.3	6.6	6.5	6.5	6.5
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	00150	172	187	181	183	179	172	178	178	173
SOLIDS, TOTAL		Tot. Sol., mg/L	00500	183	200	198	196	186	194	193	190	190
TOTAL ORGANIC CARBON		NPOC, mg/L	00680	1.76	1.82	1.71	1.57	1.78	1.61	1.79	1.60	1.84
OXYGEN DEMAND, CHEMICAL		O, mg/L	00335	<5	<5	6.7	<5	<5	<5	<5	<5	<5
NITROGEN, AMMONIA		N, mg/L	00610	0.05	0.04	0.05	0.04	0.04	0.04	0.03	0.03	0.04
NITROGEN, NITRATE	10	N, mg/L	00620	0.229	0.322	0.325	0.280	0.256	0.271	0.268	0.263	0.258
NITROGEN, NITRITE	1	N, mg/L	00615	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NITROGEN, TOTAL KJELDAHL		N, mg/L	00625	0.165	0.400	0.167	0.557	0.622	0.243	0.262	0.167	0.167
ORTHOPHOSPHATE		PO <sub>4</sub> , mg/L	00660	0.162	0.757	0.676	0.681	0.148	0.634	0.700	0.712	0.690
PHOSPHATE, TOTAL		PO <sub>4</sub> , mg/L	00650	0.180	1.320	1.080	1.043	0.196	1.104	1.117	1.177	1.110
CYANIDE, TOTAL	0.2	CN, mg/L	00720	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FOAMING AGENT	*0.5	MBAS, mg/L	38260	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
PHENOLICS, TOTAL		Phenol, µg/L	32730	<1	<1	<1	<1	<1	<1	<1	<1	<1
RADIOACTIVITY, GROSS ALPHA	15	pCi/L	01501	<1	<1	<1	<1	<1	<1	<1	<1	<1
RADIOACTIVITY, GROSS BETA	50	pCi/L	03501	<1	1.6	1.1	1.4	1.5	1.7	2.4	1.8	<1

\* Federal/State Secondary MCL's      \*\* Action Level      \*\*\*Distribution samples are composited.

**COMPREHENSIVE CHEMICAL ANALYSIS  
CITY OF CHICAGO - DEPARTMENT OF WATER MANAGEMENT - BUREAU OF WATER SUPPLY  
WATER QUALITY DIVISION-WATER PURIFICATION LABORATORIES**

SAMPLES COLLECTED: November 15, 2004

PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
					7 <sup>th</sup> Street	7 <sup>th</sup> Street			Central	North		Central
ALUMINUM		Al, µg/L	01105	111	50	41	42	83	41	42	33	39
ANTIMONY	6	Sb, µg/L	01268	<1	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	50	As, µg/L	01002	<3	<3	<3	<3	<3	<3	<3	<3	<3
BARIUM	2000	Ba, µg/L	01007	20	19	19	18	20	19	18	18	18
BERYLLIUM	4	Be, µg/L	01012	<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON		B, µg/L	01022	27	25	26	19	16	17	18	18	17
CADMIUM	5	Cd, µg/L	01027	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM	100	Cr, µg/L	01034	5	5	5	<3	4	3	3	<3	<3
COBALT		Co, µg/L	01037	<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	01042	<3	<3	<3	<3	<3	<3	<3	<3	<3
IRON	*300	Fe, µg/L	01045	41	<9	<9	<9	140	<9	<9	<9	57
LEAD	**15	Pb, µg/L	01051	<3	<3	<3	<3	<3	<3	<3	<3	<3
LITHIUM		Li, µg/L	01132	<2	<2	<2	<2	<2	<2	<2	<2	<2
MANGANESE	*50	Mn, µg/L	01055	<5	<5	<5	<5	<5	<5	<5	<5	<5
MERCURY	2	Hg, µg/L	71900	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MOLYBDENUM		Mo, µg/L	01062	1.3	1.5	1.5	1.4	1.2	1.3	1.3	1.5	1.2
NICKEL	100	Ni, µg/L	01067	<2	<2	<2	<2	<2	<2	<2	<2	<2
SELENIUM	50	Se, µg/L	01147	<2	<2	<2	<2	<2	<2	<2	<2	<2
SILICON		Si, µg/L	01142	1024	903	986	1006	1590	1039	1043	1039	1021
SILVER	**100	Ag, µg/L	01077	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM		Sr, µg/L	01082	122	122	122	118	120	121	119	118	119
THALLIUM	2	Tl, µg/L	01059	<2	<2	<2	<2	<2	<2	<2	<2	<2
TITANIUM		Ti, µg/L	01152	25	23	17	21	23	28	20	28	24
VANADIUM		V, µg/L	00985	2.2	2.2	1.9	1.1	1.5	1.3	1.2	<1	1.1
ZINC	*5000	Zn, µg/L	01092	<4	<4	<4	<4	<4	<4	<4	<4	<4

\* Federal/State Secondary MCL's      \*\* Action Level      \*\*\*Distribution samples are composited.

*Ha 2 d Connor/ma*

CHIEF WATER CHEMIST

*AE S JSA*

DIRECTOR, WATER PURIFICATION LABORATORIES

*John Spitz*

DEPUTY COMMISSIONER