

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

SAMPLE COLLECTION DATE: March 12, 2009 - 1st Quarter

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	SOUTH		North	Central	Central	North
TEMPERATURE		°C	00010	4	3	3	5	4	8	7	4	4
TURBIDITY	0.5	N.T.U.	82079	6.4	0.10	0.10	0.10	4.3	0.10	0.10	0.10	0.10
THRESHOLD ODOR, STRAIGHT	*3	T.O.N	00086	1 E	1 Cc	1 Cc	2 Cc	1 E	1 Cc	1 Cc	1 E	1 E
THRESHOLD ODOR, DECHLORINATED	*3	T.O.N.		1 E	1 M	1 M	2 M	1 E	1 M	1 M	1 E	1 E
COLOR	*15	Pt.-Co. Units	00080	0	0	0	0	0	0	0	0	0
pH	*6.5-8.5	STD. Units	00040	8.17	7.87	7.86	7.60	8.27	7.93	7.92	7.68	7.69
FREE CHLORINE RESIDUAL		CL <sub>2</sub> , mg/L	50064	--	1.00	1.00	0.69	--	1.01	1.00	0.74	0.70
SATURATION INDEX, LANGELIER		UNITS +/-		0.29	-0.07	-0.05	-0.28	0.35	0.00	0.00	-0.29	-0.24
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	118	103	103	102	115	104	104	103	103
BROMIDE		Br, mg/L	71870	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHLORIDE	*250	Cl, mg/L	00940	16.0	15.0	15.2	14.6	17.3	16.0	15.7	14.3	14.4
FLUORIDE	4	F, mg/L	00951	0.13	1.04	1.03	0.97	0.01	0.91	0.90	0.90	0.91
SULFATE	*250	SO <sub>4</sub> , mg/L	00945	24.7	29.9	28.9	28.8	24.9	28.5	28.5	28.0	27.9
HARDNESS		CaCO <sub>3</sub> , mg/L	00900	144	141	141	142	142	138	137	137	135
CALCIUM		Ca, mg/L	00916	31.4	30.6	32.7	30.3	34.4	32.7	33.9	28.9	31.6
MAGNESIUM		Mg, mg/L	00927	11.7	11.4	11.7	11.9	12.8	12.4	12.3	11.0	11.6
POTASSIUM		K, mg/L	00937	1.1	1.4	1.4	1.1	1.5	1.3	1.3	1.5	1.5
SODIUM		Na, mg/L	00006	9.2	8.2	8.5	7.9	10.0	8.8	8.7	7.3	7.7
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	00150	135	137	177	129	170	167	167	164	156
SOLIDS, TOTAL		Tot. Sol., mg/L	00500	191	185	186	185	190	191	191	179	183
TOTAL ORGANIC CARBON		NPOC, mg/L	00680	1.62	1.31	1.32	1.32	1.73	1.40	1.35	1.32	1.32
OXYGEN DEMAND, CHEMICAL		O, mg/L	00335	6.5	<5	<5	<5	<5	<5	<5	<5	<5
NITROGEN, AMMONIA		N, mg/L	00610	0.05	0.03	<0.03	0.03	0.04	<0.03	<0.03	<0.03	0.03
NITROGEN, NITRATE	10	N, mg/L	00620	0.500	0.420	0.329	0.328	0.562	0.349	0.346	0.326	0.325
NITROGEN, NITRITE	1	N, mg/L	00615	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
NITROGEN, TOTAL KJELDAHL		N, mg/L	00625	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S
ORTHOPHOSPHATE		PO <sub>4</sub> , mg/L	00660	<0.05	0.530	0.536	0.547	<0.05	0.426	0.426	0.439	0.426
PHOSPHATE, TOTAL		PO <sub>4</sub> , mg/L	00650	<0.05	1.166	1.198	1.164	<0.05	0.958	0.966	0.888	0.912
CYANIDE, TOTAL	200	CN, ug/L	00720	<5	<5	<5	<5	<5	<5	<5	<5	<5
RADIOACTIVITY, GROSS ALPHA	15	pCi/L	01501	<1	<1	<1	<1	<1	<1	<1	<1	<1
RADIOACTIVITY, GROSS BETA	50	pCi/L	03501	4	2	3	4	2	2	3	2	2

\* Federal/State Secondary MCL's

\*\* Action Level

\*\*\*Distribution samples are composited.

ND - non detected

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

SAMPLE COLLECTION DATE: March 12, 2009 - 1st Quarter

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	South		North	Central	Central	North
ALUMINUM		Al, µg/L	01105	66	36	35	31	53	37	36	39	36
ANTIMONY	6	Sb, µg/L	01268	<1	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	10	As, µg/L	01002	<1	<1	<1	<1	<1	<1	<1	<1	<1
BARIUM	2000	Ba, µg/L	01007	23	21	20	20	22	20	20	20	20
BERYLLIUM	4	Be, µg/L	01012	<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON		B, µg/L	01022	8	7	8	9	8	8	8	7	7
CADMIUM	5	Cd, µg/L	01027	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM	100	Cr, µg/L	01034	6	7	5	6	8	4	2	6	4
COBALT		Co, µg/L	01037	<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	01042	<1	<1	<1	1	2	<1	<1	<1	<1
IRON	*300	Fe, µg/L	00031	183	77	70	82	149	73	72	87	128
LEAD		Pb, µg/L	01051	<1	<1	<1	<1	<1	<1	<1	<1	<1
LITHIUM		Li, µg/L	01132	<2	<2	<2	<2	<2	<2	<2	<2	<2
MANGANESE	*50	Mn, µg/L	01055	3	<1	<1	<1	3	<1	<1	<1	<1
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	<1	<1	<1	<1	<1	<1	<1	<1
NICKEL	100	Ni, µg/L	01067	<1	<1	<1	<1	<1	<1	<1	<1	<1
SELENIUM	50	Se, µg/L	01147	<1	1	1	1	<1	1	1	1	1
SILICON		Si, µg/L	01142	836	967	1001	976	869	1038	1052	1016	1024
SILVER	*100	Ag, µg/L	01077	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM		Sr, µg/L	01082	138	135	131	131	141	134	132	132	131
THALLIUM	2	Tl, µg/L	01059	<1	<1	<1	<1	<1	<1	<1	<1	<1
TITANIUM		Ti, µg/L	01152	<5	<5	<5	<5	<5	<5	<5	<5	<5
VANADIUM		V, µg/L	00985	<1	<1	<1	<1	<1	<1	<1	<1	<1
ZINC	*5000	Zn, µg/L	01092	<2	<2	<2	2.2	<2	<2	<2	25	23

\* Federal/State Secondary MCL's

\*\* Action Level

\*\*\*Distribution samples are composited.

*Rosalee Partr*

*Hassan Saleh*

*SE E RA*

*Dennis Lento*

CHIEF WATER CHEMIST

DIRECTOR OF LABORATORIES    MANAGER OF WATER QUALITY

DEPUTY COMMISSIONER

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

SAMPLE COLLECTION DATE: June 11, 2009 - 2nd Quarter

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	SOUTH		North	Central	Central	North
TEMPERATURE		°C	00010	16	15	15	15	15	15	15	16	16
TURBIDITY	0.5	N.T.U.	82079	0.50	0.10	0.10	0.20	1.7	0.10	0.10	0.10	0.20
THRESHOLD ODOR, STRAIGHT	*3	T.O.N	00086	1 M	1 M	1 M	2 Cc	2 M	1 Cc	1 Cc	2 E	1 Cc
THRESHOLD ODOR, DECHLORINATED	*3	T.O.N.		1 M	1 M	1 M	1 E	1 E	1 E	1 E	1 E	1 E
COLOR	*15	Pt.-Co. Units	00080	0	0	0	0	0	0	0	0	0
pH	*6.5-8.5	STD. Units	00040	8.41	7.67	7.67	7.55	8.51	7.63	7.62	7.56	7.57
FREE CHLORINE RESIDUAL		CL <sub>2</sub> , mg/L	50064	NA	0.94	0.97	0.76	NA	1.01	1.00	0.71	0.62
SATURATION INDEX, LANGELIER		UNITS +/-		0.40	-0.38	-0.40	-0.51	0.49	-0.44	-0.43	-0.47	-0.47
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	114	108	104	106	117	105	109	106	105
BROMIDE		Br, mg/L	71870	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHLORIDE	*250	Cl, mg/L	00940	11.9	13.2	13.3	13.3	12.2	13.6	13.6	13.6	13.7
FLUORIDE	4	F, mg/L	00951	ND	0.95	0.96	1.11	ND	0.99	1.00	1.01	1.01
SULFATE	*250	SO <sub>4</sub> , mg/L	00945	23.2	26.8	26.6	26.5	23.5	27.0	27.2	27.0	26.6
HARDNESS		CaCO <sub>3</sub> , mg/L	00900	142	133	140	139	135	134	138	152	142
CALCIUM		Ca, mg/L	00916	34.7	35.7	36.1	35.9	36.4	36.3	36.5	35.8	35.9
MAGNESIUM		Mg, mg/L	00927	11.6	11.7	11.7	12.0	11.7	11.8	11.8	11.6	11.5
POTASSIUM		K, mg/L	00937	1.2	1.2	1.3	1.2	1.2	1.2	1.3	1.2	0.92
SODIUM		Na, mg/L	00006	7.6	8.2	8.3	8.0	8.1	8.1	8.2	8.1	8.3
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	00150	176	178	178	178	177	175	173	173	175
SOLIDS, TOTAL		Tot. Sol., mg/L	00500	1	4	2	2	6	1	0	0	2
TOTAL ORGANIC CARBON		NPOC, mg/L	00680	1.57	1.50	1.46	1.49	1.67	1.47	1.46	1.48	1.52
OXYGEN DEMAND, CHEMICAL		O, mg/L	00335	12.4	11.4	13.8	15.8	16.3	13.2	14.8	23.4	18.1
NITROGEN, AMMONIA		N, mg/L	00610	0.05	<0.03	<0.03	<0.03	0.03	<0.03	<0.03	0.04	0.08
NITROGEN, NITRATE	10	N, mg/L	00620	0.309	0.263	0.257	0.259	0.367	0.284	0.285	0.312	0.278
NITROGEN, NITRITE	1	N, mg/L	00615	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
NITROGEN, TOTAL KJELDAHL		N, mg/L	00625	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S
ORTHOPOSPHATE		PO <sub>4</sub> , mg/L	00660	0.084	0.534	0.566	0.583	<0.05	0.408	0.417	0.424	0.431
PHOSPHATE, TOTAL		PO <sub>4</sub> , mg/L	00650	0.146	1.17	1.10	1.19	<0.05	0.874	0.826	0.851	0.822
CYANIDE, TOTAL	200	CN, ug/L	00720	<5	<5	<5	<5	<5	<5	<5	<5	<5
RADIOACTIVITY, GROSS ALPHA	15	pCi/L	01501	<1	1.8	1.7	1.0	1.6	<1	<1	1.7	<1
RADIOACTIVITY, GROSS BETA	50	pCi/L	03501	5.0	4.6	5.6	5.9	5.6	5.8	5.9	5.5	3.6

\* Federal/State Secondary MCL's

\*\* Action Level

\*\*\*Distribution samples are composited.

ND - not detected

NA - not applicable

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

SAMPLE COLLECTION DATE: June 11, 2009 - 2nd Quarter

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	South		North	Central	Central	North
ALUMINUM		Al, µg/L	01105	25.3	75.9	66.4	51.9	36.6	63.0	61.5	39.6	47.7
ANTIMONY	6	Sb, µg/L	01268	1.6	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	10	As, µg/L	01002	<1	<1	<1	<1	<1	<1	<1	<1	<1
BARIUM	2000	Ba, µg/L	01007	20	20	21	19	21	19	19	18	19
BERYLLIUM	4	Be, µg/L	01012	<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON		B, µg/L	01022	28	19	21	25	25	29	30	22	23
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	<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	2	1	2	4	4	<1	<1	<1	3
IRON	*300	Fe, µg/L	00031	18	<7	<7	20	47	<7	<7	8	65
LEAD	**15	Pb, µg/L	01051	<1	<1	<1	<1	<1	<1	<1	<1	1
LITHIUM		Li, µg/L	01132	<2	<2	<2	<2	<2	<2	<2	<2	<2
MANGANESE	*50	Mn, µg/L	01055	<2	<2	<2	<2	2	<2	<2	<2	2
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	3	5	5	5	4	5	5	6	5
NICKEL	100	Ni, µg/L	01067	2	2	3	<1	<1	<1	<1	<1	1
SELENIUM	50	Se, µg/L	01147	<1	<1	<1	<1	<1	<1	<1	<1	<1
SILICON		Si, µg/L	01142	182	392	431	453	632	569	584	594	608
SILVER	*100	Ag, µg/L	01077	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM		Sr, µg/L	01082	58	59	61	61	60	60	61	58	58
THALLIUM	2	Tl, µg/L	01059	<1	<1	<1	<1	<1	<1	<1	<1	<1
TITANIUM		Ti, µg/L	01152	12	<5	<5	<5	5	<5	5	<5	<5
VANADIUM		V, µg/L	00985	56	52	53	53	57	53	54	54	53
ZINC	*5000	Zn, µg/L	01092	<4	<4	<4	8	<4	<4	<4	31	22

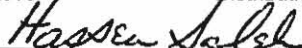
\* Federal/State Secondary MCL's

\*\* Action Level

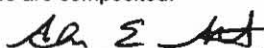
\*\*\*Distribution samples are composited.



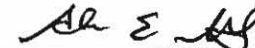
CHIEF WATER CHEMIST



DIRECTOR OF LABORATORIES



MANAGER OF WATER QUALITY



DEPUTY COMMISSIONER

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

SAMPLE COLLECTION DATE: August 27, 2009 - 3rd Quarter

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	SOUTH		North	Central	Central	North
TEMPERATURE		°C	00010	20	20	21	20	18	17	17	18	19
TURBIDITY	0.5	N.T.U.	82079	0.35	0.35	0.20	0.15	0.65	0.15	0.10	0.15	0.20
THRESHOLD ODOR, STRAIGHT	*3	T.O.N	00086	1 M	1 G	1 G	1 Cc	1 G	1 Cc	1 Cc	2 Ep	1 G
THRESHOLD ODOR, DECHLORINATED	*3	T.O.N.		1 Mm	1 Mm	1 Mm	1 Mm	1 Mm	1 Mm	1 Mm	1 Mm	1 Mm
COLOR	*15	Pt.-Co. Units	00080	0	0	0	0	0	0	0	0	0
pH	*6.5-8.5	STD. Units	00040	8.25	7.67	7.64	7.87	8.14	7.63	7.61	7.89	7.81
FREE CHLORINE RESIDUAL		CL <sub>2</sub> , mg/L	50064	ND	0.92	0.92	0.62	ND	1.08	1.01	0.72	0.69
SATURATION INDEX, LANGELIER		UNITS +/-		0.32	-0.28	-0.31	-0.08	0.15	-0.42	-0.43	-0.09	-0.18
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	112	105	101	104	109	102	102	103	102
BROMIDE		Br, mg/L	71870	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHLORIDE	*250	Cl, mg/L	00940	12.2	13.9	14.0	14.0	12.2	13.9	13.9	13.9	14.0
FLUORIDE	4	F, mg/L	00951	ND	1.02	1.02	1.02	0.02	0.88	0.96	0.93	0.96
SULFATE	*250	SO <sub>4</sub> , mg/L	00945	23.7	28.0	28.0	28.2	23.9	27.3	27.5	27.3	27.2
HARDNESS		CaCO <sub>3</sub> , mg/L	00900	139	140	134	136	150	143	138	140	137
CALCIUM		Ca, mg/L	00916	34.4	34.5	34.4	34.9	34.3	34.4	34.7	34.9	34.6
MAGNESIUM		Mg, mg/L	00927	11.1	11.2	11.1	11.3	11.0	10.9	10.8	10.8	10.5
POTASSIUM		K, mg/L	00937	1.3	1.4	1.5	1.7	1.3	1.4	1.6	1.3	1.5
SODIUM		Na, mg/L	00006	6.9	7.2	7.3	7.5	6.9	7.2	7.1	7.3	7.2
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	00150	225	225	238	217	223	219	200	198	200
SOLIDS, TOTAL		Tot. Sol., mg/L	00500	200	192	183	197	199	200	185	195	192
TOTAL ORGANIC CARBON		NPOC, mg/L	00680	1.68	1.60	1.62	1.6	1.70	1.58	1.65	1.59	1.66
OXYGEN DEMAND, CHEMICAL		O, mg/L	00335	<5	<5	<5	10.7	<5	<5	<5	<5	<5
NITROGEN, AMMONIA		N, mg/L	00610	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
NITROGEN, NITRATE	10	N, mg/L	00620	0.271	0.265	0.287	0.265	0.307	0.264	0.291	0.267	0.270
NITROGEN, NITRITE	1	N, mg/L	00615	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
NITROGEN, TOTAL KJELDAHL		N, mg/L	00625	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S
ORTHOPHOSPHATE		PO <sub>4</sub> , mg/L	00660	<0.05	0.457	0.481	0.564	<0.05	0.445	0.454	0.466	0.443
PHOSPHATE, TOTAL		PO <sub>4</sub> , mg/L	00650	<0.05	1.05	1.10	0.951	<0.05	0.951	0.984	0.942	0.951
CYANIDE, TOTAL	200	CN, ug/L	00720	<5	<5	<5	<5	<5	<5	<5	<5	<5
RADIOACTIVITY, GROSS ALPHA	15	pCi/L	01501	<1	<1	<1	1.4	<1	<1	<1	<1	<1
RADIOACTIVITY, GROSS BETA	50	pCi/L	03501	6.0	5.6	5.5	4.5	5.7	5.8	5.3	5.5	4.9

\* Federal/State Secondary MCL's

\*\* Action Level

\*\*\*Distribution samples are composited.

ND - not detected

NA - not applicable

√ - The accuracy of the reported values could not be verified because a Quality Control (QC) parameter, the Laboratory Fortified Blank (LFB), did not meet acceptance 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

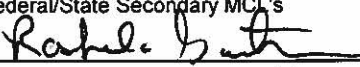
SAMPLE COLLECTION DATE: August 27, 2009 - 3rd Quarter

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			South	North		Central
ALUMINUM		Al, µg/L	01105	4.5	118	108	93.1	14.2	107	85.2	81.4	89.6
ANTIMONY	6	Sb, µg/L	01268	1.27	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC	10	As, µg/L	01002	1.21	1.05	1.01	1.18	1.19	1.1	1.38	1.15	0.93
BARIUM	2000	Ba, µg/L	01007	21	20	20	21	22	22	21	21	21
BERYLLIUM	4	Be, µg/L	01012	<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON		B, µg/L	01022	39.1	27.6	27.0	26.3	27.5	29.7	31.7	18.4	22.8
CADMIUM	5	Cd, µg/L	01027	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM	100	Cr, µg/L	01034	3.21	2.65	3.92	6.14	3.61	4.20	3.64	5.90	1.74
COBALT		Co, µg/L	01037	<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	01042	2.58	<1	<1	<1	4.89	<1	<1	<1	1.09
IRON	*300	Fe, µg/L	00031	<7	<7	<7	<7	24.1	<7	<7	<7	51
LEAD	**15	Pb, µg/L	01051	<1	<1	<1	<1	<1	<1	<1	<1	<1
LITHIUM		Li, µg/L	01132	<2	<2	<2	<2	2.2	<2	<2	<2	2.5
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	1	<1	<1	<1	<1	<1	<1	<1	<1
NICKEL	100	Ni, µg/L	01067	<3	<3	<3	<3	<3	<3	<3	<3	<3
SELENIUM	50	Se, µg/L	01147	<1	<1	<1	<1	<1	<1	<1	<1	<1
SILICON		Si, µg/L	01142	493	720	723	637	472	590	602	657	654
SILVER	*100	Ag, µg/L	01077	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM		Sr, µg/L	01082	115	106	106	112	116	119	109	110	105
THALLIUM	2	Tl, µg/L	01059	<1	<1	<1	<1	<1	<1	<1	<1	<1
TITANIUM		Ti, µg/L	01152	<5	<5	<5	<5	<5	<5	<5	<5	<5
VANADIUM		V, µg/L	00985	<2	<2	<2	<2	<2	<2	<2	<2	<2
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.

  
 CHIEF WATER CHEMIST

  
 DIRECTOR OF LABORATORIES

  
 MANAGER OF WATER QUALITY

  
 DEPUTY COMMISSIONER

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

SAMPLE COLLECTION DATE: - December 10, 2009 (Revised 6/11/10 to show correct collection date) - 4th Quarter

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	SOUTH		North	Central	Central	North
TEMPERATURE		°C	00010	7	6	7	9	4	8	8	10	11
TURBIDITY	TT	N.T.U.	82079	12.6	0.10	0.10	0.15	9.3	0.10	0.10	0.20	0.15
THRESHOLD ODOR, STRAIGHT	*3	T.O.N	00086	┆	┆	┆	┆	┆	┆	┆	┆	┆
THRESHOLD ODOR, DECHLORINATED	*3	T.O.N.		┆	┆	┆	┆	┆	┆	┆	┆	┆
COLOR	*15	Pt.-Co. Units	00080	0	0	0	0	0	0	0	0	0
pH	*6.5-8.5	STD. Units	00040	8.21	7.55	7.56	7.55	8.20	7.51	7.56	7.66	7.66
FREE CHLORINE RESIDUAL		CL <sub>2</sub> , mg/L	50064	ND	0.96	0.94	0.76	ND	1.04	1.07	0.72	0.76
SATURATION INDEX, LANGELIER		UNITS +/-		-0.01	-0.78	-0.73	-0.69	-0.13	-0.77	-0.72	-0.55	-0.52
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	108	107	111	112	106	107	108	108
BROMIDE		Br, mg/L	71870	ND	ND	ND	ND	ND	ND	ND	ND	ND
CHLORIDE	*250	Cl, mg/L	00940	12.8	15.2	15.2	14.6	13.3	14.2	14.3	14.3	14.3
FLUORIDE	4	F, mg/L	00951	0.15	1.05	1.05	1.07	0.14	1.10	1.08	1.04	1.05
SULFATE	*250	SO <sub>4</sub> , mg/L	00945	23.5	29.1	29.1	27.6	24.2	26.6	26.6	26.5	26.4
HARDNESS		CaCO <sub>3</sub> , mg/L	00900	138	141	142	156	144	142	145	141	142
CALCIUM		Ca, mg/L	00916	35.4	31.9	32.7	32.4	34.4	32.2	32.2	32.8	32.8
MAGNESIUM		Mg, mg/L	00927	13.4	12.4	12.3	12.3	13.0	12.3	12.3	12.2	12.1
POTASSIUM		K, mg/L	00937	1.6	1.4	1.5	1.4	1.4	1.4	1.3	1.3	1.5
SODIUM		Na, mg/L	00006	7.5	8.5	8.6	8.0	7.8	7.6	7.7	7.8	7.7
SOLIDS, TOTAL DISSOLVED	*500	TDS, mg/L	00150	178	179	181	176	169	191	184	184	175
SOLIDS, TOTAL		Tot. Sol., mg/L	00500	186	182	187	176	183	193	185	184	175
TOTAL ORGANIC CARBON		NPOC, mg/L	00680	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S
OXYGEN DEMAND, CHEMICAL		O, mg/L	00335	┆	┆	┆	┆	┆	┆	┆	┆	┆
NITROGEN, AMMONIA		N, mg/L	00610	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
NITROGEN, NITRATE - √	10	N, mg/L	00620	0.260	0.287	0.287	0.259	0.284	0.244	0.243	0.244	0.239
NITROGEN, NITRITE - √	1	N, mg/L	00615	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
NITROGEN, TOTAL KJELDAHL		N, mg/L	00625	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S	O/S
ORTHOPHOSPHATE		PO <sub>4</sub> , mg/L	00660	0.054	0.516	0.515	0.522	0.028	0.562	0.562	0.612	0.593
PHOSPHATE, TOTAL		PO <sub>4</sub> , mg/L	00650	0.038	1.20	1.20	1.04	0.052	1.30	1.23	1.36	1.40
CYANIDE, TOTAL	200	CN, ug/L	00720	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
RADIOACTIVITY, GROSS ALPHA	15	pCi/L	01501	<1	<1	<1	<1	<1	<1	<1	<1	<1
RADIOACTIVITY, GROSS BETA	50	pCi/L	03501	3.6	3.5	3.3	3.7	3.1	3.7	3.7	3.6	3.5

\* Federal/State Secondary MCL's

\*\* Action Level

\*\*\*Distribution samples are composited.

ND - not detected

NA - not applicable

┆ - Holding Time exceeded

O/S - Out of Service

TT - Treatment Technique

√ - Reported value is an estimate because certain Quality Control (QC) criteria were not met.

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

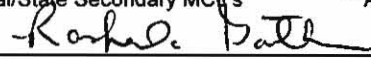
SAMPLE COLLECTION DATE: - December 10, 2009 (Revised 6/11/10 to show correct collection date) - 4th Quarter

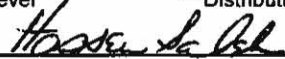
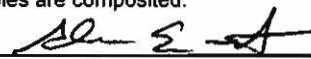
PARAMETER	IEPA MCL	DETERMINED AS	STORET NUMBER	SOUTH WATER PURIFICATION PLANT				JARDINE WATER PURIFICATION PLANT				
				RAW LAKE	OUTLETS		***DISTRIBUTION	RAW LAKE	OUTLETS		***DISTRIBUTION	
					73rd Street	79th Street	South		North	Central	Central	North
ALUMINUM		Al, µg/L	01105	174	53.8	47.5	58.6	81.3	63.7	61.2	55.3	54.8
ANTIMONY	6	Sb, µg/L	01268	<1	<1	<1	<1	<1	<1	<1	<1	<1
ARSENIC - √	10	As, µg/L	01002	<1	<1	<1	<1	<1	<1	<1	<1	<1
BARIUM	2000	Ba, µg/L	01007	25.0	22.2	22.3	21.2	22.7	20.4	19.9	17.9	19.2
BERYLLIUM	4	Be, µg/L	01012	<1	<1	<1	<1	<1	<1	<1	<1	<1
BORON - √		B, µg/L	01022	26.7	27.2	23.4	30.4	22.6	27.9	24.1	26.3	29.1
CADMIUM	5	Cd, µg/L	01027	<1	<1	<1	<1	<1	<1	<1	<1	<1
CHROMIUM	100	Cr, µg/L	01034	1.4	2.2	1.8	1.9	1.7	<1	<1	1.6	<1
COBALT		Co, µg/L	01037	<1	<1	<1	<1	<1	<1	<1	<1	<1
COPPER	**1300	Cu, µg/L	01042	<1	<1	<1	<1	<1	<1	<1	<1	<1
IRON	*300	Fe, µg/L	00031	790	<4	<4	5.3	<4	<4	<4	7.1	26.1
LEAD	**15	Pb, µg/L	01051	<1	<1	<1	<1	<1	<1	<1	<1	<1
LITHIUM		Li, µg/L	01132	4.2	3.5	3.1	3.5	3.3	2.6	3.0	3.2	3.1
MANGANESE	*50	Mn, µg/L	01055	17.2	<1	<1	<1	9.71	<1	<1	<1	<1
MERCURY	2	Hg, µg/L	71900	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
MOLYBDENUM		Mo, µg/L	01062	<1	<1	<1	<1	<1	<1	<1	<1	<1
NICKEL	100	Ni, µg/L	01067	<1	<1	<1	1.7	<1	<1	<1	1.2	<1
SELENIUM - √	50	Se, µg/L	01147	<2	<2	<2	<2	<2	<2	<2	<2	<2
SILICON - √		Si, µg/L	01142	1253	873	886	881	2868	925	905	885	881
SILVER - √	*100	Ag, µg/L	01077	<1	<1	<1	<1	<1	<1	<1	<1	<1
STRONTIUM		Sr, µg/L	01082	136	139	127	134	128	122	126	131	122
THALLIUM	2	Tl, µg/L	01059	<1	<1	<1	<1	<1	<1	<1	<1	<1
TITANIUM - √		Ti, µg/L	01152	10.2	<4	<4	4.7	5.7	<4	<4	<4	<4
VANADIUM - √		V, µg/L	00985	2.5	<2	<2	5.9	6.6	3.3	3.4	6.2	2.2
ZINC - √	*5000	Zn, µg/L	01092	<2	<2	<2	10.0	<2	<2	<2	16.1	19.9

\* Federal/State Secondary MCL's

\*\* Action Level

\*\*\*Distribution samples are composited.

  
 CHIEF WATER CHEMIST

   
 DIRECTOR OF LABORATORIES    MANAGER OF WATER QUALITY

  
 DEPUTY COMMISSIONER