

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 09-32

122ND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA

MONITORING REPORT

FIRST QUARTER 2009

MAY 2009

Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET CHICAGO, ILLINOIS 60611-3154 312.751.5190

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May 18, 2009

Mr. S. Allan Keller, P.E.
Manager, Permit Section
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Dear Mr. Keller:

Subject: 122nd and Stony Island Avenue Solids Management Area – Stickney Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2005-AO-4283, Monitoring Report for January, February, and March 2009

The attached three tables contain the monitoring data for the 122nd and Stony Island Avenue Solids Management Area for January, February, and March 2009, as required by the Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2005-AO-4283.

The data reported are as follows:

- Table 1, Analysis of Water from Lysimeters L-1 through L-4 at the 122nd and Stony Island Avenue Solids Management Area Sampled on January 7, 2009
- Table 2, Analysis of Water from Lysimeters L-1 through L-4 at the 122nd and Stony Island Avenue Solids Management Area Sampled on February 9, 2009
- Table 3, Analysis of Water from Lysimeters L-1 through L-4 at the 122nd and Stony Island Avenue Solids Management Area Sampled on March 4, 2009

No biosolids were placed in or removed from the solids drying area during January, February, and March 2009.

Very truly yours,

Louis Kollias
Director
Monitoring and Research

LK:PL:kq
Attachments
cc: Mr. R. Sulski, IEPA
Records Unit, IEPA
Stuba/Granato/Cox/Lindo/M. Patel

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS
L-1 THROUGH L-4 AT THE 122ND AND STONY ISLAND AVENUE
SOLIDS MANAGEMENT AREA SAMPLED ON JANUARY 7, 2009

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ¹		7.8	8.0	7.5	8.0
EC	mS/m	298	263	310	176
Total Dissolved Solids	mg/L	1,952	1,444	2,588	1,324
Total Diss. Org. Carbon	"	37	17	42	19
Cl ⁻	"	219	409	113	293
SO ₄ ⁼	"	271	80	622	35
TKN	"	31	4	10	6
NH ₃ -N	"	31	2	7	5
NO ₂ + NO ₃ -N	"	0.33	0.09	0.07	0.07
Total P	"	<0.1	<0.1	<0.1	<0.1
Alkalinity as CaCO ₃	"	1,193	589	1,226	718
Al	"	0.067	<0.035	0.059	<0.035
B	"	3.5	1.2	0.39	1.3
Ca	"	278	131	513	153
Cd	"	<0.002	<0.002	<0.002	<0.002
Cr	"	<0.003	<0.003	<0.003	<0.003
Cu	"	<0.01	<0.01	<0.01	<0.01
Fe	"	1.0	0.29	6.6	0.64
Hg	μg/L	<0.20	<0.20	<0.20	<0.20
K	mg/L	34	38	7	19
Mg	"	129	71	159	75
Mn	"	0.304	0.797	0.558	0.139
Na	"	194	259	59	214
Ni	"	<0.002	<0.002	<0.002	<0.002
Pb	"	0.06	0.05	0.04	0.05
Zn	"	<0.01	<0.01	<0.01	<0.01

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS
L-1 THROUGH L-4 AT THE 122ND AND STONY ISLAND AVENUE
SOLIDS MANAGEMENT AREA SAMPLED ON FEBRUARY 9, 2009

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ¹		7.5	7.8	7.5	7.9
EC	mS/m	241	185	246	181
Total Dissolved Solids ²	mg/L	2,284	1,300	2,668	1,308
Total Diss. Org. Carbon	"	35	15	41	19
Cl ⁻	"	229	376	95	310
SO ₄ ⁼	"	244	88	623	26
TKN	"	32	2	9	4
NH ₃ -N	"	30	0.4	8	3
NO ₂ + NO ₃ -N	"	0.64	0.05	<0.04	0.31
Total P	"	<0.1	0.8	<0.1	<0.1
Alkalinity as CaCO ₃	"	1,235	512	1,237	745
Al	"	0.038	<0.035	0.044	<0.035
B	"	4.2	0.93	0.42	1.4
Ca	"	261	97	495	138
Cd	"	<0.002	<0.002	<0.002	<0.002
Cr	"	<0.003	<0.003	<0.003	<0.003
Cu	"	<0.01	<0.01	<0.01	<0.01
Fe	"	0.43	0.33	1.2	0.19
Hg	μg/L	<0.20	<0.20	<0.20	<0.20
K	mg/L	29	31	6	19
Mg	"	130	55	151	69
Mn	"	0.290	0.761	0.529	0.124
Na	"	190	211	46	196
Ni	"	<0.002	<0.002	<0.002	<0.002
Pb	"	0.05	0.05	0.05	0.05
Zn	"	<0.01	<0.01	<0.01	<0.01

¹pH analyzed beyond recommended holding time of 15 minutes.

²Total dissolved solids analyzed beyond recommended holding time of 7 days.

TABLE 3: ANALYSIS OF WATER FROM LYSIMETERS
L-1 THROUGH L-4 AT THE 122ND AND STONY ISLAND AVENUE
SOLIDS MANAGEMENT AREA SAMPLED ON MARCH 4, 2009

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH ¹		8.0	7.9	7.5	8.0
EC	mS/m	287	212	282	232
Total Dissolved Solids	mg/L	1,984	1,320	2,848	1,364
Total Diss. Org. Carbon	"	34	15	40	21
Cl ⁻	"	204	343	98	286
SO ₄ ⁼	"	248	105	630	17
TKN	"	32	2	10	5
NH ₃ -N	"	30	0.5	7	4
NO ₂ + NO ₃ -N	"	0.37	<0.04	0.06	<0.04
Total P	"	<0.1	<0.1	<0.1	<0.1
Alkalinity as CaCO ₃	"	1,115	456	1,111	696
Al	"	0.052	<0.035	0.079	<0.035
B	"	4.1	0.85	0.43	1.5
Ca	"	239	104	503	135
Cd	"	<0.002	<0.002	<0.002	<0.002
Cr	"	<0.003	<0.003	<0.003	<0.003
Cu	"	<0.01	<0.01	<0.01	<0.01
Fe	"	0.24	0.21	6.8	0.45
Hg	μg/L	<0.20	<0.20	<0.20	<0.20
K	mg/L	27	30	6	21
Mg	"	120	58	159	75
Mn	"	0.254	0.684	0.790	0.148
Na	"	189	225	51	217
Ni	"	<0.002	<0.002	<0.002	<0.002
Pb	"	0.06	0.04	0.07	0.04
Zn	"	<0.01	<0.01	0.02	0.02

¹pH analyzed beyond recommended holding time of 15 minutes.