

*Protecting Our Water Environment*



*Metropolitan Water Reclamation District of Greater Chicago*

***RESEARCH AND DEVELOPMENT  
DEPARTMENT***

**REPORT NO. 06-56**

**122<sup>ND</sup> AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA**

**MONITORING DATA FOR**

**SECOND QUARTER 2006**

**August 2006**

August 31, 2006

Mr. S. Alan 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: 122<sup>nd</sup> and Stony Island Avenue Solids Management Area - Stickney WRP,  
IEPA Permit No. 2005-AO-4283, Monitoring Data for April, May, and June  
2006

The attached four tables contain the monitoring data for the 122<sup>nd</sup> and Stony Island Avenue Solids Management Area for April, May, and June 2006 as required by 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 122<sup>nd</sup> and Stony Island Avenue Solids Management Area Sampled on April 5, 2006

Table 2, Analysis of Water from Lysimeters L-1 through L-4 at the 122<sup>nd</sup> and Stony Island Avenue Solids Management Area Sampled on May 3, 2006

Table 3, Analysis of Water from Lysimeters L-1 through L-4 at the 122<sup>nd</sup> and Stony Island Avenue Solids Management Area Sampled on June 28, 2006

Table 4, Analysis of Monthly Compositated Digested Biosolids Placed in the 122<sup>nd</sup> and Stony Island Avenue Solids Management Drying Area During June 2006

Subject: 122<sup>nd</sup> and Stony Island Avenue Solids Management Area - Stickney WRP,  
IEPA Permit No. 2005-AO-4283, Monitoring Data for April, May, and June  
2006

Biosolids were placed in the solids drying area during June only. However, no biosolids were removed from the area during this quarter.

Very truly yours,

Louis Kollias  
Director  
Research and Development

LK:PL:spy

Enclosure

cc w/enc: Records Unit (IEPA)  
Sulski (IEPA)

cc via MWRDGC Web Site:  
Levy/Sharma  
Stuba/Granato  
O'Connor/Cox  
Lindo/Patel, M.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 1

ANALYSIS OF WATER FROM LYSIMETERS L-1 THROUGH L-4  
AT THE 122<sup>ND</sup> AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA  
SAMPLED ON APRIL 5, 2006

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH <sup>1</sup>		7.7	8.0	7.8	8.0
EC	mS/m	274	328	276	183
Total Dissolved Solids	mg/L	2,060	2,366	2,716	1,222
Total Dissolved Organic Carbon	"	32	15	41	18
Cl <sup>-</sup>	"	244	816	94	298
SO <sub>4</sub> <sup>=</sup>	"	273	158	734	42
TKN	"	41	6.8	9.9	5.8
NH <sub>3</sub> -N	"	35	4.2	5.4	3.7
NO <sub>2</sub> + NO <sub>3</sub> -N	"	0.48	0.87	0.15	0.05
Total P	"	0.05	< 0.05	0.05	< 0.05
Alkalinity as CaCO <sub>3</sub>	"	1,209	574	1,260	618
Al	"	0.020	0.010	0.020	< 0.007
B	"	4.96	1.27	0.487	1.38
Ca	"	290	163	523	139
Cd	"	< 0.0004	0.0019	< 0.0004	< 0.0004
Cr	"	< 0.0005	0.0007	< 0.0005	0.0011
Cu	"	< 0.002	< 0.002	< 0.002	0.002
Fe	"	0.318	0.072	3.29	0.317
Hg	μg/L	< 0.05	< 0.05	< 0.05	< 0.05
K	mg/L	32	55	6	11
Mg	"	140	116	173	64.5
Mn	"	0.3191	0.9253	0.5109	0.1358
Na	"	172	389	48	196
Ni	"	0.0010	0.0070	0.0010	0.0020
Pb	"	0.004	< 0.004	< 0.004	< 0.004
Zn	"	0.009	0.013	0.006	0.008

<sup>1</sup>pH analyzed beyond recommended holding time of 15 minutes.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2

ANALYSIS OF WATER FROM LYSIMETERS L-1 THROUGH L-4  
AT THE 122<sup>ND</sup> AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA  
SAMPLED ON MAY 3, 2006

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH <sup>1</sup>		7.5	7.7	7.5	7.7
EC	mS/m	280	368	276	182
Total Dissolved Solids	mg/L	2,062	2,858	2,730	1,226
Total Dissolved Organic Carbon	"	35	16	43	17
Cl <sup>-</sup>	"	194	723	76	270
SO <sub>4</sub> <sup>=</sup>	"	267	402	703	31
TKN	"	41	6.8	10	6.0
NH <sub>3</sub> -N	"	33	4.3	5.5	3.8
NO <sub>2</sub> + NO <sub>3</sub> -N	"	0.19	0.50	0.16	0.07
Total P	"	0.10	0.06	0.09	0.09
Alkalinity as CaCO <sub>3</sub>	"	1,029	503	1,076	547
Al	"	< 0.007	< 0.007	< 0.007	< 0.007
B	"	5.44	1.44	0.517	1.64
Ca	"	305	211	519	132
Cd	"	0.0019	0.0035	0.0023	0.0019
Cr	"	0.0023	0.0022	0.0024	0.0018
Cu	"	< 0.002	< 0.002	< 0.002	< 0.002
Fe	"	0.500	0.298	4.15	0.125
Hg	μg/L	< 0.05	< 0.05	< 0.05	0.08
K	mg/L	34	69	6	14
Mg	"	152	157	180	65.7
Mn	"	0.3492	1.239	0.5381	0.2189
Na	"	188	408	48	232
Ni	"	< 0.0004	0.0075	< 0.0004	0.0011
Pb	"	0.010	0.009	0.013	0.010
Zn	"	0.008	0.005	0.010	0.004

<sup>1</sup>pH analyzed beyond recommended holding time of 15 minutes.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 3

ANALYSIS OF WATER FROM LYSIMETERS L-1 THROUGH L-4  
AT THE 122<sup>ND</sup> AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA  
SAMPLED ON JUNE 28, 2006

Parameter	Unit	Lysimeter No.			
		L-1	L-2	L-3	L-4
pH <sup>1</sup>		7.5	7.5	7.5	7.7
EC	mS/m	288	422	307	185
Total Dissolved Solids	mg/L	2,016	3,508	2,740	1,262
Total Dissolved Organic Carbon	"	34	15	41	17
Cl <sup>-</sup>	"	232	798	94	307
SO <sub>4</sub> <sup>=</sup>	"	225	795	549	56
TKN	"	37	7.4	10	5.4
NH <sub>3</sub> -N	"	34	4.7	5.6	3.5
NO <sub>2</sub> + NO <sub>3</sub> -N	"	0.37	0.48	0.10	0.10
Total P	"	< 0.05	< 0.05	0.05	< 0.05
Alkalinity as CaCO <sub>3</sub>	"	1,242	528	1,243	590
Al	"	0.036	0.031	0.046	0.022
B	"	4.53	1.38	0.490	1.39
Ca	"	300	274	508	141
Cd	"	0.0005	0.0020	0.0005	0.0006
Cr	"	< 0.0005	< 0.0005	< 0.0005	0.0005
Cu	"	< 0.002	< 0.002	< 0.002	< 0.002
Fe	"	0.598	2.62	6.69	0.146
Hg	μg/L	< 0.05	< 0.05	< 0.05	< 0.05
K	mg/L	29	60	6	11
Mg	"	139	174	165	69.1
Mn	"	0.3305	1.789	0.5294	0.1180
Na	"	161	463	49	197
Ni	"	0.0004	0.0081	0.0004	0.0017
Pb	"	0.005	0.004	< 0.004	0.005
Zn	"	0.013	0.010	0.033	0.016

<sup>1</sup>pH analyzed beyond recommended holding time of 15 minutes.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 4

ANALYSIS OF MONTHLY COMPOSITED DIGESTED BIOSOLIDS  
 PLACED IN THE 122<sup>ND</sup> AND STONY ISLAND AVENUE  
 SOLIDS MANAGEMENT DRYING AREA DURING JUNE 2006

Parameter	Unit	Concentration*
pH		8.2
Total Solids	%	27.2
Total Volatile Solids	”	48.6
TKN	mg/kg	37,304
NH <sub>3</sub> -N	”	5,219

\*Values for one sample only.