

Metropolitan Water Reclamation District of Greater Chicago

MONITORING AND RESEARCH DEPARTMENT

REPORT NO. 13-41

122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT

AREA MONITORING REPORT FOR

THIRD QUARTER 2013

NOVEMBER 2013

Protecting Our Water Environment

Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street

Chicago, Illinois 60611-3154

312.751.5190

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THOMAS C. GRANATO, Ph.D.

Director of Monitoring and Research

312.751.5190 f: 312.751.5194 thomas.granato@mwrd.org

November 18, 2013

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: 122nd and Stony Island Avenue Solids Management Area – Stickney Water

Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2010-

AO-0267, Monitoring Report for July, August, and September 2013

The attached two tables contain the monitoring data for the 122nd and Stony Island Avenue Solids Management Area for July, August, and September 2013 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2010-AO-0267.

The data reported are as follows:

Table 1, Analysis of Water from Lysimeter L-1 at the 122nd and Stony Island Avenue Solids Management Area Sampled During July, August, and September 2013

Table 2, Analysis of Water from Lysimeters L-2 Through L-4 at the 122nd and Stony Island Avenue Solids Management Area Sampled During July and September 2013

No biosolids were placed in or removed from the solids drying area during July, August, and September 2013.

Very truly yours,

Thomas C. Granato, Ph.D. Director Monitoring and Research

TCG:PL:cm Attachments

cc w/att: Mr. J. Patel, IEPA Records Unit, IEPA

TABLE 1: ANALYSIS OF WATER FROM LYSIMETER L-1 AT THE $122^{\rm ND}$ AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA SAMPLED DURING JULY, AUGUST, AND SEPTEMBER 2013

Parameter	Unit	Date Sampled		
		07/17/13	08/07/13	09/04/13
pH ¹		7.3	7.5	7.9
EC	mS/m	284	268	265
Total Dissolved Solids	mg/L	2,246	2,224	1,152
Total Dissolved Organic Carbon	,,	39	37	38
Cl-	75	204	191	193
$SO_4^=$	59	208	230	246
Alkalinity as CaCO ₃	22	1,482	1,420	1,350
TKN	,,	36	32	33
NH ₃ -N	,,	33	34	34
$NO_2 + NO_3 - N$,,	< 0.15	0.36	< 0.15
Total P	17	0.25	< 0.20	< 0.20
Al	**	< 1.0	< 1.0	< 1.0
В	,,	NR^2	10	11
Ca	,,	293	305	302
Cd	,,	< 0.001		< 0.001
Cr	,,	< 0.005	< 0.005	< 0.005
Cu	"	< 0.005	< 0.005	< 0.005
Fe	,,	22	18	18
Hg	μg/L	< 0.20	< 0.20	< 0.20
K	mg/L	31	33	31
Mg	,,	144	147	142
Mn	,,	0.281	0.269	
Na	7.7	183	193	183
Ni	,,	< 0.005		
Pb	17	< 0.02	< 0.02	< 0.02
Zn	"	< 0.01	< 0.01	< 0.01

¹pH analyzed beyond recommended holding time of 15 minutes.

²No result.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-2 THROUGH L-4 AT THE 122ND AND STONY ISLAND AVENUE SOLIDS MANAGEMENT AREA SAMPLED DURING JULY AND SEPTEMBER 2013

Parameter	Unit	Date Sampled		
		07/18/13 09/04/13		
		L-2	L-3	L-4
pH ¹		7.8	7.5	7.9
EC	mS/m	173	306	228
Total Dissolved Solids	mg/L	1,296	1,422	1,236
Total Dissolved Organic Carbon	,,	19	17	51
Cl	"	258	35	89
$SO_4^=$	**	12	830	462
Alkalinity as CaCO ₃	27	711	401	1,107
TKN	,,	6	2	13
NH ₃ -N	27	5	0.8	11
$NO_2 + NO_3 - N$	55	< 0.15	< 0.15	< 0.15
Total P	,,	< 0.20	0.71	0.40
Al	,,	< 1.0	< 1.0	< 1.0
В	,,	1.7	1.3	0.70
Ca	1)	112	202	418
Cd	,,	< 0.001	< 0.001	< 0.001
Cr	3.5	< 0.005	< 0.005	< 0.005
Cu	>3	< 0.005	< 0.005	< 0.005
Fe	,,	5	38	10
Hg	μg/L	< 0.20	< 0.20	< 0.20
K	mg/L	22	67	9
Mg	,,	67	147	158
Mn	,,	0.108	1.88	0.382
Na	"	180	282	63
Ni	,,	< 0.005	< 0.005	< 0.005
Pb	,,	< 0.02	< 0.02	< 0.02
Zn	,,	< 0.01	< 0.01	< 0.01

¹pH analyzed beyond recommended holding time of 15 minutes.