

Metropolitan Water Reclamation District of Greater Chicago

## MONITORING AND RESEARCH DEPARTMENT

**REPORT NO. 11-31** 

CALUMET EAST SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

FIRST QUARTER 2011

**JUNE 2011** 



## Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street Chicago, Illinois 60611-3154 f: 312.751.5194 312.751.5190

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**Thomas C. Granato,** Ph.D. Acting Director of Monitoring and Research thomas.granato@mwrd.org

June 6, 2011

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: Calumet East Solids Management Area - Calumet Water

Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2010-AO-0265, Monitoring Report for January, February, and

March 2011

The attached table contains the monitoring data for the Calumet East Solids Management Area for January, February, and March 2011 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2010-AO-0265. The data reported are as follows:

<u>Table 1</u>, Analysis of Water From Lysimeters L-1N Through L-6N at the Calumet East Solids Management Area Sampled on March 9, 2011

No biosolids were placed in or removed from the solids drying area during January, February, and March 2011.

Very truly yours,

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

TCG:CO'C:AC:PL:cm TCG:PL:cm Attachments cc w/att: Mr. Sulski, IEPA

Records Unit, IEPA Granato/O'Connor

bcc: Cox/Lindo

## TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON MARCH 9, 2011

			Lysimeter No.			
Parameter	Unit	L-1N	L-2N	L-3N	L-4N	
pH <sup>1</sup>		0.0	9.0	0.1	7.8	
EC	mS/m	8.0 450	8.0 408	8.1 327	7.8	
Total Dissolved Solids	mg/L	4,008	3,692	2,892	6,164	
Total Dissolved Organic Carbon	ilig/L	4,008	17	6	11	
Cl <sup>-</sup>	,,	226	162	75	935	
SO <sub>4</sub> =	,,	1,998	1,795	1,478	2,352	
TKN	,,	12	3	1	3	
NH <sub>3</sub> -N	,,	4	2	0.3	2	
$NO_2 + NO_3 - N$		1.1	0.33	0.59	0.40	
Total P		0.15	4.3	0.13	0.36	
Alkalinity as CaCO <sub>3</sub>		531	582	459	663	
Al	,,	< 1.0	< 1.0	< 1.0	< 1.0	
Ca	,,	478	515	415	592	
Cd	,,	< 0.001	< 0.001	< 0.001	< 0.001	
Cr	,,	< 0.003	< 0.003	< 0.003	< 0.003	
Cu	**	< 0.005	< 0.005	< 0.005	< 0.005	
Fe		15	26	1	76	
Hg	$\mu$ g/L	< 0.20	< 0.20	< 0.20	< 0.20	
K	mg/L	10	10	6	12	
Mg	,,	272	237	198	318	
Mn		0.190	0.743	0.559	0.574	
Na		177	108	62	696	
Ni		< 0.008	< 0.008	< 0.008	< 0.008	
Pb		< 0.03	< 0.03	< 0.03	< 0.03	
Zn		< 0.02	< 0.02	< 0.02	< 0.02	

## TABLE 1 (Continued): ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON MARCH 9, 2011

Parameter	Unit	Lysimeter No.		
		L-5	L-6N	
pH <sup>1</sup>		8.0	8.2	
EC	mS/m	201	168	
Total Dissolved Solids	mg/L	1,580	1,516	
Total Dissolved Organic Carbon	,,	2	8	
Cl <sup>-</sup>		235	29	
SO <sub>4</sub> =		585	653	
TKN	,,	< 0.5	1	
NH <sub>3</sub> -N	,,	0.3	0.9	
$NO_2 + NO_3 - N$	,,	0.19	0.35	
Total P	,,	< 0.10	4.4	
Alkalinity as CaCO <sub>3</sub>	,,	248	366	
Al	,,	< 1.0	< 1.0	
Ca	"	192	203	
Cd	,,	< 0.001	< 0.001	
Cr	,,	< 0.003	< 0.003	
Cu	"	< 0.005	< 0.005	
Fe	,,	< 0.2	3	
Hg	μg/L	< 0.20	< 0.20	
K	mg/L	4	5	
Mg	,,	102	88.7	
Mn		0.013	0.259	
Na	,,	93	77	
Ni	,,	< 0.008	0.013	
Pb	,,	< 0.03	< 0.03	
Zn	,,	< 0.02	< 0.02	

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