

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 10-43

CALUMET WEST SOLIDS MANAGEMENT AREA

MONITORING REPORT FOR

SECOND QUARTER 2010

AUGUST 2010

Metropolitan Water Reclamation District of Greater Chicago

100 East Erie Street

Chicago, Illinois 60611-3154

312.751.5190

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Director of Monitoring and Research

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August 20, 2010

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 West Solids Management Area - Calumet Water Reclamation Plant,
Illinois Environmental Protection Agency Permit No. 2005-AO-4281-2,
Monitoring Report for April, May, and June 2010

The attached table contains the monitoring data for the Calumet West Solids Management Area for April, May, and June 2010 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2005-AO-4281-2.

The data reported are as follows:

Table 1, Analysis of Water from Lysimeters L-1 through L-3N at the Calumet West Solids Management Area Sampled on April 14, 2010

Three new lysimeters, L-1N, L-2N, and L-3N, were installed at this site in September 2008 as replacements for L-1, L-2, and L-3, respectively. By a letter dated June 10, 2010, the IEPA approved termination of monitoring of the old lysimeters. Data for these lysimeters will not be included in future quarterly reports.

No biosolids were placed in or removed from the solids drying area during April, May, and June 2010.

Very truly yours,

Louis Kollias
Director
Monitoring and Research

LK:PL:kq

Attachments

cc w/att: Mr. Sulski, IEPA
Records Unit, IEPA
Granato/O'Connor

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1
THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT
AREA SAMPLED ON APRIL 14, 2010

Parameter	Unit	Lysimeter No.			
		L-1	L-1N	L-2	L-2N
pH ¹		8.1	8.3	8.2	9.3
EC	mS/m	303	278	332	228
Total Dissolved Solids	mg/L	2,912	2,720	3,364	1,984
Total Dissolved Organic Carbon	"	2	3	3	6
Cl ⁻	"	102	31	15	29
SO ₄ ⁼	"	1,489	1,503	1,862	1,047
TKN	"	< 0.5	0.9	< 0.5	2
NH ₃ -N	"	0.4	0.7	0.2	2
NO ₂ + NO ₃ -N	"	0.17	0.06	0.23	0.10
Total P	"	< 0.10	< 0.10	< 0.10	< 0.10
Alkalinity as CaCO ₃	"	166	224	179	60
Al	"	0.139	0.111	0.172	0.199
Ca	"	322	286	378	316
Cd	"	< 0.003	< 0.003	< 0.003	< 0.003
Cr	"	< 0.003	< 0.003	< 0.003	< 0.003
Cu	"	< 0.008	< 0.008	< 0.008	< 0.008
Fe	"	6.80	0.064	2.11	0.088
Hg	µg/L	< 0.20	< 0.20	< 0.20	< 0.20
K	mg/L	7	14	8	32
Mg	"	146	174	191	11.8
Mn	"	0.162	0.053	0.087	0.014
Na	"	192	141	177	193
Ni	"	< 0.004	< 0.004	0.005	0.009
Pb	"	< 0.020	< 0.020	< 0.020	< 0.020
Zn	"	< 0.015	< 0.015	0.024	< 0.015

TABLE 1: (Continued) ANALYSIS OF WATER FROM LYSIMETERS L-1 THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON APRIL 14, 2010

Parameter	Unit	Lysimeter No.	
		L-3	L-3N
pH ¹		8.2	8.3
EC	mS/m	322	314
Total Dissolved Solids	mg/L	3,188	3,740
Total Dissolved Organic Carbon	"	1	3
Cl ⁻	"	15	50
SO ₄ ⁼	"	1,802	2,043
TKN	"	< 0.5	0.9
NH ₃ -N	"	< 0.1	1
NO ₂ + NO ₃ -N	"	0.26	< 0.04
Total P	"	< 0.10	< 0.10
Alkalinity as CaCO ₃	"	131	254
Al	"	0.135	0.136
Ca	"	371	390
Cd	"	< 0.003	< 0.003
Cr	"	< 0.003	< 0.003
Cu	"	< 0.008	< 0.008
Fe	"	0.109	2.09
Hg	μg/L	< 0.20	< 0.20
K	mg/L	6	10
Mg	"	171	236
Mn	"	0.011	0.344
Na	"	182	190
Ni	"	< 0.004	< 0.004
Pb	"	< 0.020	< 0.020
Zn	"	< 0.015	< 0.015

¹pH analyzed beyond recommended holding time of 15 minutes.