

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

*MONITORING AND RESEARCH
DEPARTMENT*

REPORT NO. 15-30

CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS

MONITORING REPORT FOR

SECOND QUARTER 2015

August 2015

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Director of Monitoring and Research

August 24, 2015

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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 and West Solids Management Areas - Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit Nos. 2015-AO-59622 and 2010-AO-0265-1, Monitoring Report for April, May, and June 2015

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for April, May, and June 2015 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit Nos. 2015-AO-59622 and 2010-AO-0265-1. Biosolids were placed in the solids drying areas during May and June 2015.

Table 1, Analysis of Water From Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on June 3, 2015.

Table 2, Analysis of Water From Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on June 3, 2015.

Table 3, Analysis of Compositated Biosolids Placed in the Calumet East Solids Management Area During May and June 2015.

Table 4, Analysis of Compositated Biosolids Placed in the Calumet West Solids Management Area During June 2015.

Very truly yours,

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

TCG:DB:cm

Attachment

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

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N
 AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON
 JUNE 3, 2015

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH ¹	7.4	7.4	7.5	7.0	7.6	7.9
	----- mg L ⁻¹ -----					
Cl ⁻	177	142	42	901	225	20
SO ₄ ²⁻	2,133	1,818	1,418	2,623	572	755
NO ₂ +NO ₃ -N	1.8	<0.15	<0.15	<0.15	0.46	0.18

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON JUNE 3, 2015

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH ¹	7.8	8.1	8.0
	----- mg L ⁻¹ -----		
Cl ⁻	70	24	55
SO ₄ ²⁻	1,859	1,920	2,321
NO ₂ +NO ₃ -N	<0.15	<0.15	0.38

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 3: ANALYSIS OF COMPOSITED BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT DRYING AREA DURING MAY AND JUNE 2015

Parameter	Analysis ¹
pH	7.6
	---- % ----
Total Solids	8.2
Total Volatile Solids ²	46

¹Mean of five samples.

²Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF COMPOSITED BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS MANAGEMENT DRYING AREA DURING JUNE 2015

Parameter	Analysis ¹
pH	7.4
	---- % ----
Total Solids	9.0
Total Volatile Solids ²	45

¹Mean of two samples.

²Total volatile solids as a percentage of total solids.