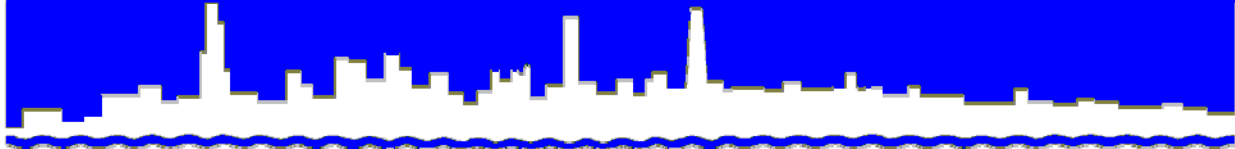


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

*MONITORING AND RESEARCH
DEPARTMENT*

REPORT NO. 16-27

CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS

MONITORING REPORT FOR

SECOND QUARTER 2016

August 2016

Protecting Our Water Environment

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THOMAS C. GRANATO, Ph.D., BCES

Director of Monitoring and Research

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August 23, 2016

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 No. 2015-AO-59622, Monitoring Report for April, May, and June 2016

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for April, May, and June 2016 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2015-AO-59622. Biosolids were placed in the Calumet East Solids Management Area in May and in the Calumet West Solids Management Area in June 2016.

Table 1 Analysis of Water From Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on May 18, 2016.

Table 2 Analysis of Water From Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on May 18, 2016.

Table 3 Analysis of Biosolids Placed in the Calumet East Solids Management Area During May 2016.

Mr. S. Alan Keller

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August 23, 2016

Subject: Calumet East and West Solids Management Areas - Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2015-AO-59622, Monitoring Report for April, May, and June 2016

Table 4 Analysis of Biosolids Placed in the Calumet West Solids Management Area During June 2016.

Very truly yours,

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

TCG:HZ:DB:cm

TCG:HZ:GT:DB:cm

Attachments

cc/att: Mr. J. Patel, IEPA
Records Unit, IEPA
Dr. H. Zhang
Dr. A. Cox
Dr. G. Tian
Dr. D. Brose

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON MAY 18, 2016

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH ¹	7.5	7.6	7.5	7.4	7.6	8.0
	----- mg L ⁻¹ -----					
Cl ⁻	163	123	37	797	209	18
SO ₄ ²⁻	2,049	1,945	1,370	2,644	584	758
NO ₂ +NO ₃ -N	0.71	<0.15	<0.15	<0.15	0.31	0.20

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
 MAY 18, 2016

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH ¹	7.9	8.2	7.6
	----- mg L ⁻¹ -----		
Cl ⁻	36	22	55
SO ₄ ²⁻	1,843	2,030	2,400
NO ₂ +NO ₃ -N	<0.15	<0.15	0.39

¹pH analyzed beyond recommended holding time of 15 minutes.

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET
EAST SOLIDS MANAGEMENT AREA DURING
MAY 2016

Parameter	Analysis ¹
pH	7.3
	---- % ----
Total Solids	7.9
Total Volatile Solids ²	48

¹Mean of two samples.

²Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET
WEST SOLIDS MANAGEMENT AREA DURING
JUNE 2016

Parameter	Analysis ¹
pH	7.7
	---- % ----
Total Solids	14
Total Volatile Solids ²	34

¹Mean of three samples.

²Total volatile solids as a percentage of total solids.