

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 20-25

CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS

MONITORING REPORT FOR

SECOND QUARTER 2020

July 2020

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Edward W. Podczewski, P.E.

Director of Monitoring and Research

July 30, 2020

Mr. Roger Callaway
Illinois Environmental Protection Agency
Bureau of Water
DWPC Compliance Section #19
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9274

Dear Mr. Callaway:

Subject: Calumet East and West Solids Management Areas - Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2020-AO-64905, Monitoring Report for April, May, and June 2020

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for April, May, and June 2020, as required by Illinois Environmental Protection Agency Operating Permit No. 2020-AO-64905. Biosolids were placed in the Calumet East Solids Management Area in May and June 2020, and in the Calumet West Solids Management Area in April, May, and June 2020.

Table 1 Analysis of Water From Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on May 12, 2020.

Table 2 Analysis of Water From Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on May 12, 2020.

Table 3 Analysis of Biosolids Placed in the Calumet East Solids Management Area During May and June 2020.

Table 4 Analysis of Biosolids Placed in the Calumet West Solids Management Area During April, May, and June 2020.

Very truly yours,



Albert E. Cox
Environmental Monitoring and Research Manager
Monitoring and Research Department

AC:BM:cm

Attachments

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

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**CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS
MONITORING REPORT FOR SECOND QUARTER 2020**

Monitoring and Research Department
Edward W. Podczewinski, Director

July 2020

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON MAY 12, 2020

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH	6.9	NC ¹	6.9	6.9	7.1	7.4
	----- mg L ⁻¹ -----					
Cl ⁻	147	NC	33	900	250	19
SO ₄ ²⁻	1,976	NC	1,187	2,618	560	691
NO ₂ ⁻ +NO ₃ ⁻ -N	0.71	NC	<0.25	<0.25	0.35	0.32

¹Sample could not be collected at lysimeter L-2N on May 12, 2020 because a vacuum could not be established and the lysimeter was not revisited during the second quarter due to the COVID-19 pandemic. An examination of the lysimeter is being conducted to determine whether repairs are necessary prior to sampling in the third quarter.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON MAY 12, 2020

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH	7.6	8.4	7.3
	----- mg L ⁻¹ -----		
Cl ⁻	37	25	65
SO ₄ ²⁻	1,858	2,239	2,367
NO ₂ ⁻ +NO ₃ ⁻ -N	<0.25	<0.25	0.42

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT AREA DURING MAY AND JUNE 2020

Parameter	May	June
pH	6.7	7.4
	----- % -----	
Total Solids	36.2	7.2
Total Volatile Solids ¹	45.9	54.3

¹Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS MANAGEMENT AREA DURING APRIL, MAY, AND JUNE 2020

Parameter	April	May	June
pH	7.3	7.5	7.5
	----- % -----		
Total Solids	6.6	8.3	6.3
Total Volatile Solids ¹	53.3	48.9	55.5

¹Total volatile solids as a percentage of total solids.