

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 23-06

CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS

MONITORING REPORT FOR

FOURTH QUARTER 2022

February 2023

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Edward W. Podczerwinski, P.E.

Director of Monitoring and Research

February 2, 2023

Ms. Catherine Siders
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 Ms. Siders:

Subject: Calumet East and West Solids Management Areas – Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2020-AO-64905, Monitoring Report for October, November, and December 2022

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for October, November, and December 2022, as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2020-AO-64905. Biosolids were placed in the Calumet East Solids Management Area in October and November 2022, and in the West Solids Management Areas in October 2022.

Table 1: Analysis of Water from Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on November 3, 2022.

Table 2: Analysis of Water from Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on November 3, 2022.

Table 3: Analysis of Biosolids Placed in the Calumet East Solids Management Area During October and November 2022.

Table 4: Analysis of Biosolids Placed in the Calumet West Solids Management Area During October 2022.

Very truly yours,



Albert E. Cox, Ph.D.
Environmental Monitoring and Research Manager
Monitoring and Research Department

AC:lf

Attachment

cc: Mr. J. Patel, IEPA/Mr. T. Bennett, IEPA
Mr. B. Fleming, IEPA/Dr. H. Zhang

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**CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS
MONITORING REPORT FOR
FOURTH QUARTER 2022**

By

**Benjamin Morgan
Environmental Soil Scientist**

**Albert Cox
Environmental Monitoring and Research Manager**

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON NOVEMBER 3, 2022

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH	7.1	7.1	7.0	7.2	7.5	7.6
	-----mg L ⁻¹ -----					
Cl ⁻	145	129	31	808	249	19
SO ₄ ²⁻	2,065	1,746	1,095	2,521	563	711
NO ₂ ⁻ +NO ₃ ⁻ -N	0.63	0.57	<0.25	<0.25	0.55	0.28

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON NOVEMBER 3, 2022

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH	7.4	8.1	7.0
	-----mg L ⁻¹ -----		
Cl ⁻	39	20	59
SO ₄ ²⁻	1,924	1,722	2,243
NO ₂ ⁻ +NO ₃ ⁻ -N	<0.25	<0.25	0.27

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT AREA DURING OCTOBER AND NOVEMBER 2022

Parameter	October	November
pH	7.3	7.5
	-----%-----	
Total Solids	7.5	8.0
Total Volatile Solids ¹	54.1	53.2

¹Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS
MANAGEMENT AREA DURING OCTOBER 2022

Parameter	October
pH	7.3
Total Solids	% 6.7
Total Volatile Solids ¹	54.4

¹Total volatile solids as a percentage of total solids.