

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 25-13

CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS

MONITORING REPORT FOR

FOURTH QUARTER 2024

May 2025

Kari K. Steele
President
Patricia Theresa Flynn
Vice President
Marcelino García
Chairman of Finance
Precious Brady-Davis
Yumeka Brown
Cameron Davis
Beth McElroy Kirkwood
Eira L. Corral Sepúlveda
Sharon Waller

Metropolitan Water Reclamation District of Greater Chicago

CECIL LUE-HING RESEARCH AND DEVELOPMENT COMPLEX
6001 WEST PERSHING ROAD CICERO, ILLINOIS 60804-4112

February 21, 2025

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section, Mail Code #19
2520 W. Iles Ave.
P.O. Box 19276
Springfield, Illinois 62794-9274

Dear Sir or Madam:

Subject: Calumet East and West Solids Management Areas – Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2024-AO-71828, Monitoring Report for October, November, and December 2024

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for October, November, and December 2024, as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2024-AO-71828. Biosolids were placed in the Calumet East Solids Management Area in October and November 2024, and in the West Solids Management Areas in October and November 2024.

Table 1: Analysis of Water from Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on November 8, 2024.

Table 2: Analysis of Water from Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on November 8, 2024.

Table 3: Analysis of Biosolids Placed in the Calumet East Solids Management Area During October and November 2024.

Table 4: Analysis of Biosolids Placed in the Calumet West Solids Management Area During October and November 2024.

Very truly yours,



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

AC:EE:lf
Attachment
cc: Mr. T. Bennett, IEPA
Mr. B. Fleming, IEPA
Dr. H. Zhang

Metropolitan Water Reclamation District of Greater Chicago
100 East Erie Street Chicago, Illinois 60611-2803 (312) 751-5600

**CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS
MONITORING REPORT FOR
FOURTH QUARTER 2024**

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 8, 2024

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH	7.6	7.7	7.3	7.1	7.3	7.9
	-----mg L ⁻¹ -----					
Cl ⁻	150	137	30	844	261	19
SO ₄ ²⁻	2,107	1,791	927	2,597	545	683
NO ₂ ⁻ +NO ₃ ⁻ -N	<0.50	0.79	<0.50	<0.50	<0.50	<0.50

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON NOVEMBER 8, 2024

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH	7.6	7.8	7.5
	-----mg L ⁻¹ -----		
Cl ⁻	39	23	64
SO ₄ ²⁻	1,850	1,980	2,257
NO ₂ ⁻ +NO ₃ ⁻ -N	<0.50	<0.50	<0.50

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT AREA DURING OCTOBER AND NOVEMBER 2024

Parameter	October	November
pH	7.3	7.2
	-----%-----	
Total Solids	7.9	9.4
Total Volatile Solids ¹	51.0	46.9

¹Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS MANAGEMENT AREA DURING OCTOBER AND NOVEMBER 2024

Parameter	October	November
pH	7.3	7.3
	-----%-----	
Total Solids	8.4	7.8
Total Volatile Solids ¹	49.9	49.9

¹Total volatile solids as a percentage of total solids.