

*Protecting Our Water Environment*



*Metropolitan Water Reclamation District of Greater Chicago*

***MONITORING AND RESEARCH  
DEPARTMENT***

*REPORT NO. 22-01*

*CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS*

*MONITORING REPORT FOR*

*FOURTH QUARTER 2021*

*February 2022*

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**Edward W. Podczewinski, P.E.**  
Director of Monitoring and Research

February 17, 2022

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 2021

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for October, November, and December 2021, as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2020-AO-64905. Biosolids were placed in the Calumet East and West Solids Management Areas in October 2021.

Table 1: Analysis of Water From Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on November 22, 2021.

Table 2: Analysis of Water From Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on November 22, 2021.

Table 3: Analysis of Biosolids Placed in the Calumet East Solids Management Area During October 2021.

Table 4: Analysis of Biosolids Placed in the Calumet West Solids Management Area During October 2021.

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 2021**

**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 22, 2021

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH	7.5	7.4	7.5	7.1	7.4	7.7
	-----mg L <sup>-1</sup> -----					
Cl <sup>-</sup>	158	148	36	892	264	21
SO <sub>4</sub> <sup>2-</sup>	2,188	1,903	1,281	2,673	583	749
NO <sub>2</sub> <sup>-</sup> +NO <sub>3</sub> <sup>-</sup> -N	0.60	0.27	<0.25	<0.25	0.27	<0.25

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON NOVEMBER 22, 2021

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH	7.6	8.4	7.4
	-----mg L <sup>-1</sup> -----		
Cl <sup>-</sup>	41	24	66
SO <sub>4</sub> <sup>2-</sup>	1,861	2,013	2,267
NO <sub>2</sub> <sup>-</sup> +NO <sub>3</sub> <sup>-</sup> -N	<0.25	<0.25	<0.25

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS  
MANAGEMENT AREA DURING OCTOBER 2021

Parameter	October
pH	7.3
	-----%-----
Total Solids	7.1
Total Volatile Solids <sup>1</sup>	52.5

<sup>1</sup>Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS  
MANAGEMENT AREA DURING OCTOBER 2021

Parameter	October
pH	7.5
	-----%-----
Total Solids	7.2
Total Volatile Solids <sup>1</sup>	52.3

<sup>1</sup>Total volatile solids as a percentage of total solids.