

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

*MONITORING AND RESEARCH
DEPARTMENT*

REPORT NO. 20-30

CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS

MONITORING REPORT FOR

THIRD QUARTER 2020

November 2020

Metropolitan Water Reclamation District of Greater Chicago
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**CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS
MONITORING REPORT FOR THIRD QUARTER 2020**

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November 2020

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Edward W. Podczewski, P.E.
Director of Monitoring and Research

November 12, 2020

Mr. Jim Miles
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. Miles:

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

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for July, August, and September 2020 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 July, August, and September, and in the Calumet West Solids Management Areas in July and August.

Table 1 Analysis of Water From Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on August 5, 2020.

Table 2 Analysis of Water From Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on August 5, 2020.

Table 3 Analysis of Biosolids Placed in the Calumet East Solids Management Area During July, August, and September 2020.

Table 4 Analysis of Biosolids Placed in the Calumet West Solids Management Area During July and August 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/Ms. C. Siders, IEPA
Dr. H. Zhang

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON AUGUST 5, 2020¹

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH	7.0	7.1	7.0	6.9	7.3	7.6
	----- mg L ⁻¹ -----					
Cl ⁻	150	133	34	876	254	19
SO ₄ ²⁻	2,073	1,723	1,295	2,718	580	723
NO ₂ ⁻ +NO ₃ ⁻ 0N	0.74	<0.25	<0.25	<0.25	0.53	<0.25

¹Lysimeters were re-sampled on October 1, 2020, for SO₄ analyses, as the results of the August sampling were canceled by the analytical lab due to cold room-temperature reading above the acceptable range.

TABLE 2: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-3N AT THE CALUMET WEST SOLIDS MANAGEMENT AREA SAMPLED ON AUGUST 5, 2020¹

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH ¹	7.5	8.6	7.4
	----- mg L ⁻¹ -----		
Cl ⁻	38	23	60
SO ₄ ²⁻	1,892	NDR ²	2,078
NO ₂ ⁻ +NO ₃ ⁻ 0N	<0.25	<0.25	0.35

¹Lysimeters were re-sampled on October 1, 2020, for SO₄ analyses, as the results of the August sampling were canceled by the analytical lab due to cold room-temperature reading above the acceptable range.

²No data reportable due to QA/QC failure.

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT AREA DURING JULY, AUGUST, AND SEPTEMBER 2020

Parameter	July	August	September
pH	7.4	7.6	7.5
	----- % -----		
Total Solids	7.3	6.6	6.5
Total Volatile Solids ¹	51.3	52.8	53.5

¹Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS
MANAGEMENT AREA DURING JULY AND AUGUST 2020

Parameter	July	August
pH	7.4	7.5
	----- % -----	
Total Solids	7.1	6.6
Total Volatile Solids ¹	51.0	53.5

¹Total volatile solids as a percentage of total solids.