

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 19-04

CALUMET EAST AND WEST SOLIDS MANAGEMENT AREAS

MONITORING REPORT FOR

FOURTH QUARTER 2018

March 2019

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 2018**

Monitoring and Research Department
Edward W. Podczewinski, Director

March 2019

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

February 26, 2019

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. 2015-AO-59622, Monitoring Report for October, November, and December 2018

The attached tables contain the monitoring data for the Calumet East and West Solids Management Areas for October, November, and December 2018 as required by Illinois Environmental Protection Agency (IEPA) Operating Permit No. 2015-AO-59622. Biosolids were placed in the Calumet East Solids Management Area in October, November, and December and in the Calumet West Solids Management Area in October and November.

- Table 1 Analysis of Water From Lysimeters L-1N through L-6N at the Calumet East Solids Management Area Sampled on November 7, 2018.
- Table 2 Analysis of Water From Lysimeters L-1N through L-3N at the Calumet West Solids Management Area Sampled on November 7, 2018.
- Table 3 Analysis of Biosolids Placed in the Calumet East Solids Management Area During October 2018.
- Table 4 Analysis of Biosolids Placed in the Calumet East Solids Management Area During November 2018.
- Table 5 Analysis of Biosolids Placed in the Calumet East Solids Management Area During December 2018.

Mr. Roger Callaway

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February 26, 2019

Subject: Calumet East and West Solids Management Areas - Calumet Water Reclamation Plant, Illinois Environmental Protection Agency Permit No. 2015-AO-59622, Monitoring Report for October, November, and December 2018

Table 6 Analysis of Biosolids Placed in the Calumet West Solids Management Area During October 2018.

Table 7 Analysis of Biosolids Placed in the Calumet West Solids Management Area During November 2018.

Very truly yours,



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

AC:DB:cm

Attachments

cc/att: Mr. J. Patel, IEPA
Records Unit, IEPA
Dr. H. Zhang
Dr. G. Tian
Dr. D. Brose

TABLE 1: ANALYSIS OF WATER FROM LYSIMETERS L-1N THROUGH L-6N AT THE CALUMET EAST SOLIDS MANAGEMENT AREA SAMPLED ON NOVEMBER 7, 2018

Parameter	Lysimeter No.					
	L-1N	L-2N	L-3N	L-4N	L-5N	L-6N
pH	7.0	7.6	7.0	6.8	7.4	7.7
	----- mg L ⁻¹ -----					
Cl ⁻	146	139	37	819	248	22
SO ₄ ²⁻	1,999	1,901	1,342	2,421	563	732
NO ₂ +NO ₃ -N	0.65	<0.25	<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 7, 2018

Parameter	Lysimeter No.		
	L-1N	L-2N	L-3N
pH	7.5	8.8	7.6
	----- mg L ⁻¹ -----		
Cl ⁻	39	26	59
SO ₄ ²⁻	1,930	1,944	2,189
NO ₂ +NO ₃ -N	<0.25	<0.25	0.26

TABLE 3: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT AREA DURING OCTOBER 2018

Parameter	Analysis ¹
pH	7.9
	---- % ----
Total Solids	8.0
Total Volatile Solids ²	52

¹Mean of two samples.

²Total volatile solids as a percentage of total solids.

TABLE 4: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT AREA DURING NOVEMBER 2018

Parameter	Analysis ¹
pH	7.6
	---- % ----
Total Solids	7.3
Total Volatile Solids ²	51

¹One sample.

²Total volatile solids as a percentage of total solids.

TABLE 5: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET EAST SOLIDS MANAGEMENT AREA DURING DECEMBER 2018

Parameter	Analysis ¹
pH	8.4
	---- % ----
Total Solids	22
Total Volatile Solids ²	59

¹One sample.

²Total volatile solids as a percentage of total solids.

TABLE 6: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS MANAGEMENT AREA DURING OCTOBER 2018

Parameter	Analysis ¹
pH	7.8
	---- % ----
Total Solids	9.4
Total Volatile Solids ²	55

¹Mean of two samples.

²Total volatile solids as a percentage of total solids.

TABLE 7: ANALYSIS OF BIOSOLIDS PLACED IN THE CALUMET WEST SOLIDS MANAGEMENT AREA DURING NOVEMBER 2018

Parameter	Analysis ¹
pH	7.5
	---- % ----
Total Solids	7.3
Total Volatile Solids ²	51

¹One sample.

²Total volatile solids as a percentage of total solids.