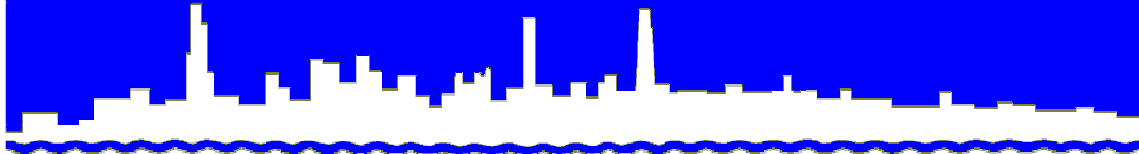


Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***RESEARCH AND DEVELOPMENT
DEPARTMENT***

REPORT NO. 06-25

CALUMET WEST SLUDGE DRYING AREA

FIRST QUARTER 2006

MAY 2006

Protecting Our Water Environment

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Louis Kollias, P.E., BCEE
Acting Director of Research and Development
312-751-5190

May 17, 2006

Mr. S. Alan Keller, P.E.
Manager, Permit Section
Illinois Environmental
Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, IL 62794-9276

Dear Mr. Keller:

Subject: Calumet WRP - Solids Drying Area (West), Contract No. 84-270-2P,
C175399, IEPA Permit No. 2005-AO-4281, Monitoring Data for January,
February, and March 2006

The attached three tables contain the monitoring data for the Calumet Solids Drying Area (West) site for January, February, and March 2006 as required by IEPA Operating Permit No. 2005-AO-4281.

The data reported are as follows:

Table 1, Analysis of Water from Lysimeters L-1 through L-3 at the Calumet Water Reclamation Plant Solids Drying Area (West) Sampled on January 11, 2006

Table 2, Analysis of Water from Lysimeters L-1 through L-3 at the Calumet Water Reclamation Plant Solids Drying Area (West) Sampled on February 8, 2006

Table 3, Analysis of Water from Lysimeters L-1 through L-3 at the Calumet Water Reclamation Plant Solids Drying Area (West) Sampled on March 8, 2006

Mr. S. Alan Keller

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May 17, 2006

Subject: Calumet WRP - Solids Drying Area (West), Contract No. 84-270-2P, C175399, IEPA Permit No. 2005-AO-4281, Monitoring Data for January, February, and March 2006

No biosolids were placed in the drying area during January, February, and March 2006.
No biosolids were removed from the drying area during January, February, and March 2006.

Very truly yours,

Richard Lanyon
Director
Research and Development

RL:KK:spy

Attachment

cc w/att.: Sulski (IEPA)
Records Unit (IEPA)

cc via MWRDGC web site:

Quintanilla
Sharma
Kollias
Granato
Cox
Kumar
Dennison

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 1

ANALYSIS OF WATER FROM LYSIMETERS L-1 THROUGH L-3
 AT THE CALUMET WATER RECLAMATION PLANT
 SOLIDS DRYING AREA (WEST)
 SAMPLED ON JANUARY 11, 2006

Parameter	Units	Lysimeter No.		
		L-1	L-2	L-3
pH*		7.5	7.9	7.7
EC	mS/m	284	296	286
Total Dissolved Solids	mg/L	2,894	NA	3,474
Total Dissolved Organic Carbon	"	1	NA	1
Cl ⁻	"	92	46	26
SO ₄ ⁻	"	1,414	NA	1,717
TKN	"	0.71	0.44	0.35
NH ₃ -N	"	0.22	0.04	0.12
Total P	"	<0.04	<0.08	<0.04
NO ₂ +NO ₃ -N	"	0.082	0.038	0.237
Alkalinity as CaCO ₃	"	161	184	158
Al	"	<0.07	<0.14	<0.07
Ca	"	320	347	356
Cd	"	<0.0003	<0.0006	<0.0003
Cr	"	<0.0007	<0.0014	<0.0007
Cu	"	<0.002	0.010	<0.002
Fe	"	2.1	0.29	0.03
Hg	µg/L	<0.05	<0.1	<0.05
K	mg/L	7.3	7.7	6.1
Mg	"	148	183	190
Mn	"	0.084	0.305	0.174
Na	"	187	191	187
Ni	"	<0.002	0.006	<0.002
Pb	"	<0.0009	0.0040	<0.0009
Zn	"	0.006	0.036	0.005

*pH was measured beyond the 15-minute holding time.

NA = No Analysis; insufficient sample volume.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 2

ANALYSIS OF WATER FROM LYSIMETERS L-1 THROUGH L-3
 AT THE CALUMET WATER RECLAMATION PLANT
 SOLIDS DRYING AREA (WEST)
 SAMPLED ON FEBRUARY 8, 2006

Parameter	Units	Lysimeter No.		
		L-1	L-2	L-3
pH*		7.4	7.4	7.4
EC	mS/m	263	281	317
Total Dissolved Solids	mg/L	2,816	3,530	3,386
Total Dissolved Organic Carbon	"	<2	2	<2
Cl ⁻	"	106	32	27
SO ₄ ⁻	"	1,593	1,927	2,047
TKN	"	1.45	0.33	0.19
NH ₃ -N	"	0.19	0.20	0.06
Total P	"	<0.04	<0.04	<0.04
NO ₂ +NO ₃ -N	"	0.12	0.16	0.51
Alkalinity as CaCO ₃	"	155	186	158
Al	"	<0.07	<0.07	<0.07
Ca	"	320	174	356
Cd	"	<0.0003	<0.0003	<0.0003
Cr	"	<0.0007	<0.0007	<0.0007
Cu	"	<0.002	0.005	<0.002
Fe	"	2.10	0.14	0.03
Hg	µg/L	<0.05	<0.05	<0.05
K	mg/L	7.3	3.9	6.1
Mg	"	148	91.5	190
Mn	"	0.084	0.152	0.174
Na	"	187	95.6	187
Ni	"	<0.002	0.003	<0.002
Pb	"	<0.0009	0.0020	<0.0009
Zn	"	0.006	0.018	0.005

*pH was measured beyond the 15-minute holding time.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

TABLE 3

ANALYSIS OF WATER FROM LYSIMETERS L-1 THROUGH L-3
 AT THE CALUMET WATER RECLAMATION PLANT
 SOLIDS DRYING AREA (WEST)
 SAMPLED ON MARCH 8, 2006

Parameter	Units	Lysimeter No.		
		L-1	L-2	L-3
pH*		7.5	7.6	7.5
EC	mS/m	283	297	320
Total Dissolved Solids	mg/L	2,800	3,382	3,448
Total Dissolved Organic Carbon	"	<4	<2	<2
Cl ⁻	"	161	33	27
SO ₄ ⁻	"	1,417	2,138	1,980
TKN	"	2.06	0.87	0.47
NH ₃ -N	"	<0.04	<0.02	<0.02
Total P	"	<0.08	<0.04	0.06
NO ₂ +NO ₃ -N	"	0.21	0.53	0.55
Alkalinity as CaCO ₃	"	140	179	145
Al	"	<0.14	<0.07	<0.07
Ca	"	301	365	371
Cd	"	<0.0006	0.0003	<0.0003
Cr	"	0.0060	0.0050	0.0050
Cu	"	<0.004	<0.002	<0.002
Fe	"	0.42	0.06	0.01
Hg	µg/L	<0.1	<0.05	<0.05
K	mg/L	7.2	7.9	6.3
Mg	"	138	193	196
Mn	"	0.041	0.120	0.076
Na	"	210	198	198
Ni	"	<0.004	0.005	<0.002
Pb	"	0.0120	0.0050	0.0040
Zn	"	0.006	0.007	0.006

*pH was measured beyond the 15-minute holding time.