Metropolitan Water Reclamation District of Greater Chicago

MONITORING AND RESEARCH DEPARTMENT

REPORT NO. 10-38

MONTHLY CONTROLLED SOLIDS

DISTRIBUTION REPORT

MAY 2010

AUGUST 2010

Protecting Our Water Environment

Metropolitan Water Reclamation District of Greater Chicago
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August 4, 2010

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: Metropolitan Water Reclamation District of Greater Chicago – Controlled Solids Distribution Program Illinois Environmental Protection Agency Permit No. 2005-SC-3793, May 2010

This letter transmits information and data for the Metropolitan Water Reclamation District of Greater Chicago - Controlled Solids Distribution Program for May 2010, as required by Illinois Environmental Protection Agency Permit No. 2005-SC-3793.

Sludge flow schematic diagrams for solids processed during May 2010 are shown in Figure 1 - John E. Egan Water Reclamation Plant (WRP), Figure 2 - Calumet WRP, and Figure 3 - Stickney WRP.

Biosolids were distributed to nine sites in May. The user information report for those sites are presented in Table 1, and the analyses of the composited biosolids delivered to those sites are presented in Tables 2 - 10.

Very truly yours,

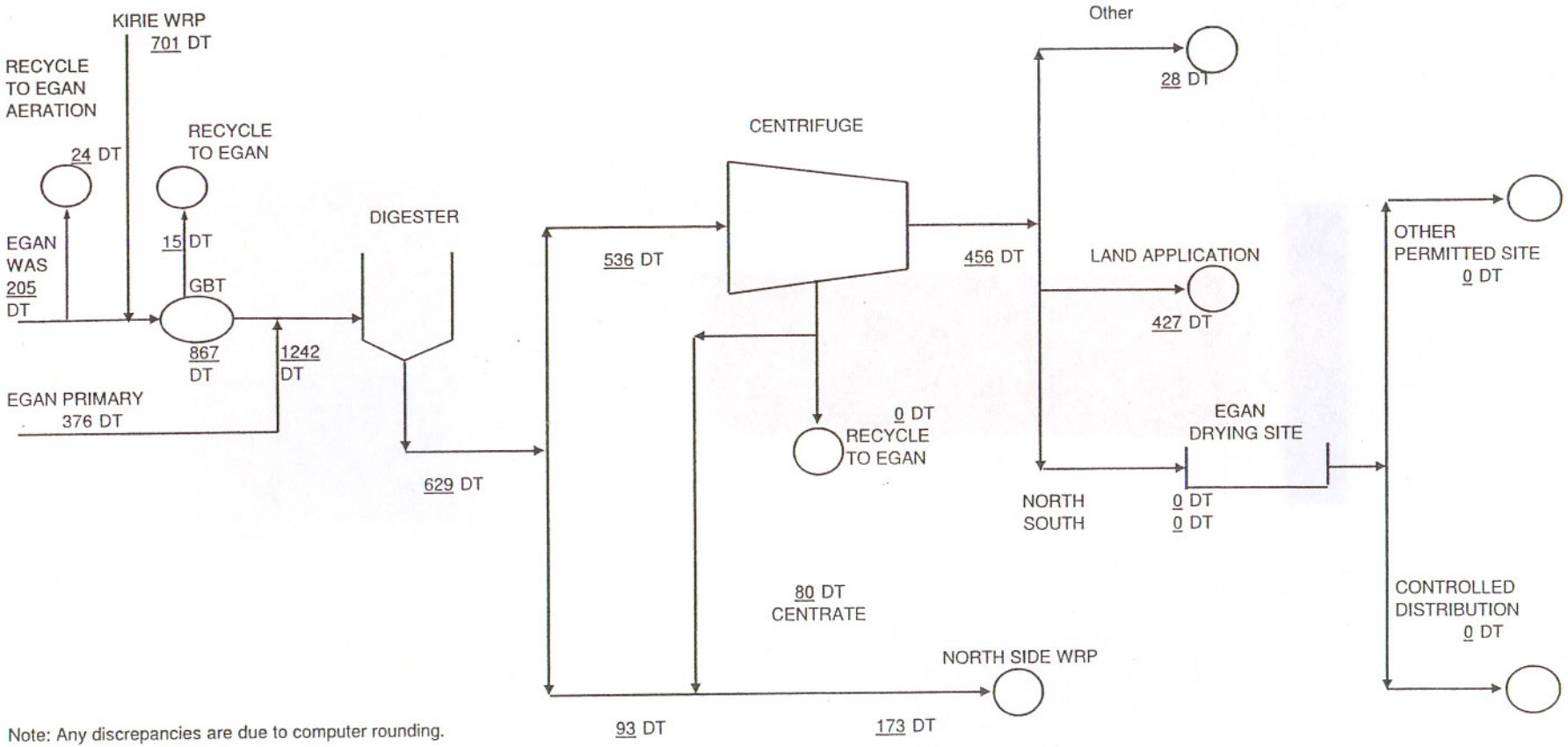
Louis Kollias
Director
Monitoring and Research

LK:OO:kq
Attachments
cc: Aistars (USEPA)
Sulski (IEPA)
Kits
O'Connor

J.E. EGAN WRP SOLIDS DISTRIBUTION-

April-10

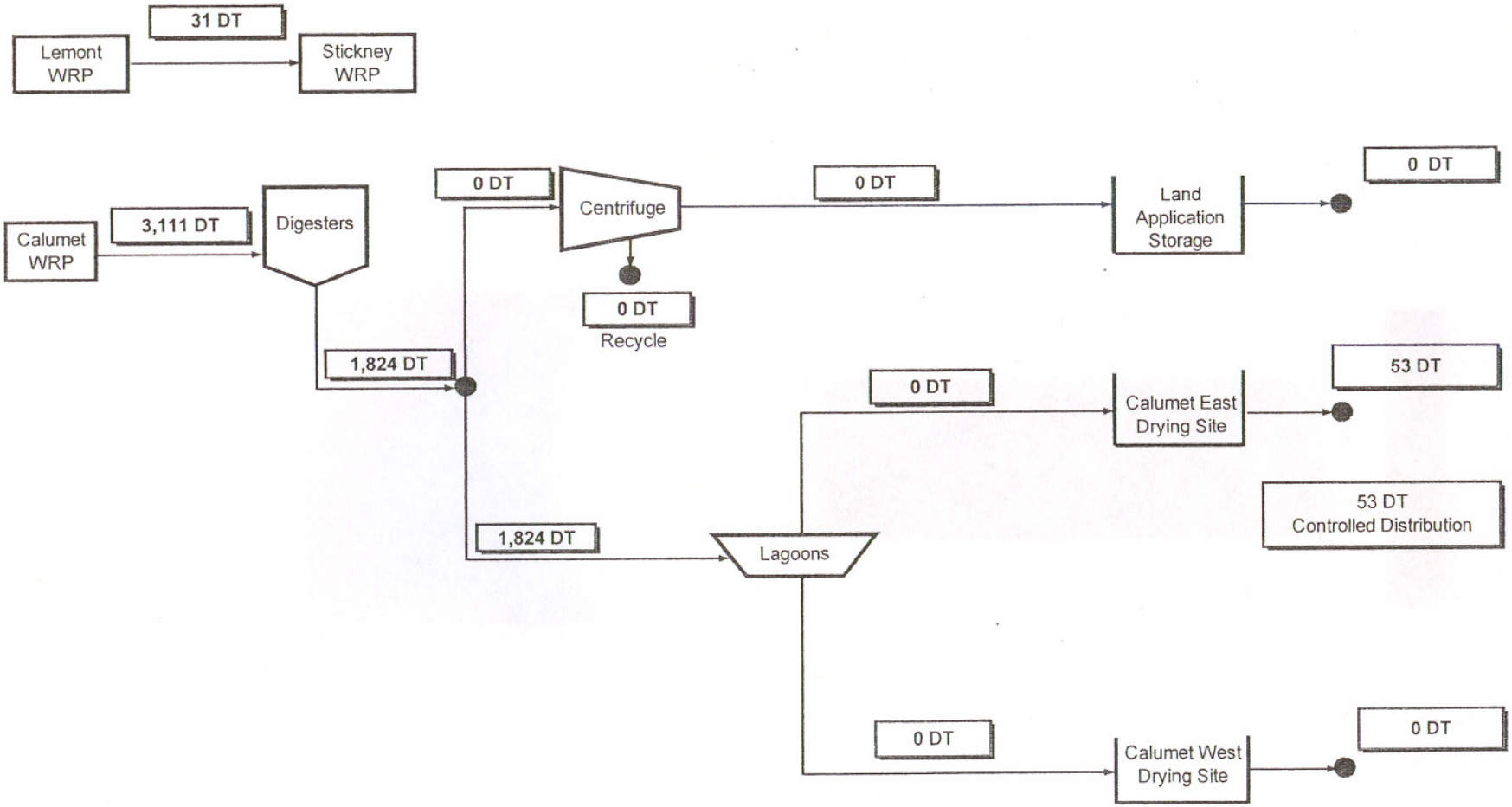
FIGURE 1



Note: Any discrepancies are due to computer rounding.

CALUMET WRP SOLIDS DISTRIBUTION - April 2010

Figure 2



STICKNEY WATER RECLAMATION PLANT SOLIDS DISTRIBUTION FOR APRIL 2010

Figure 3

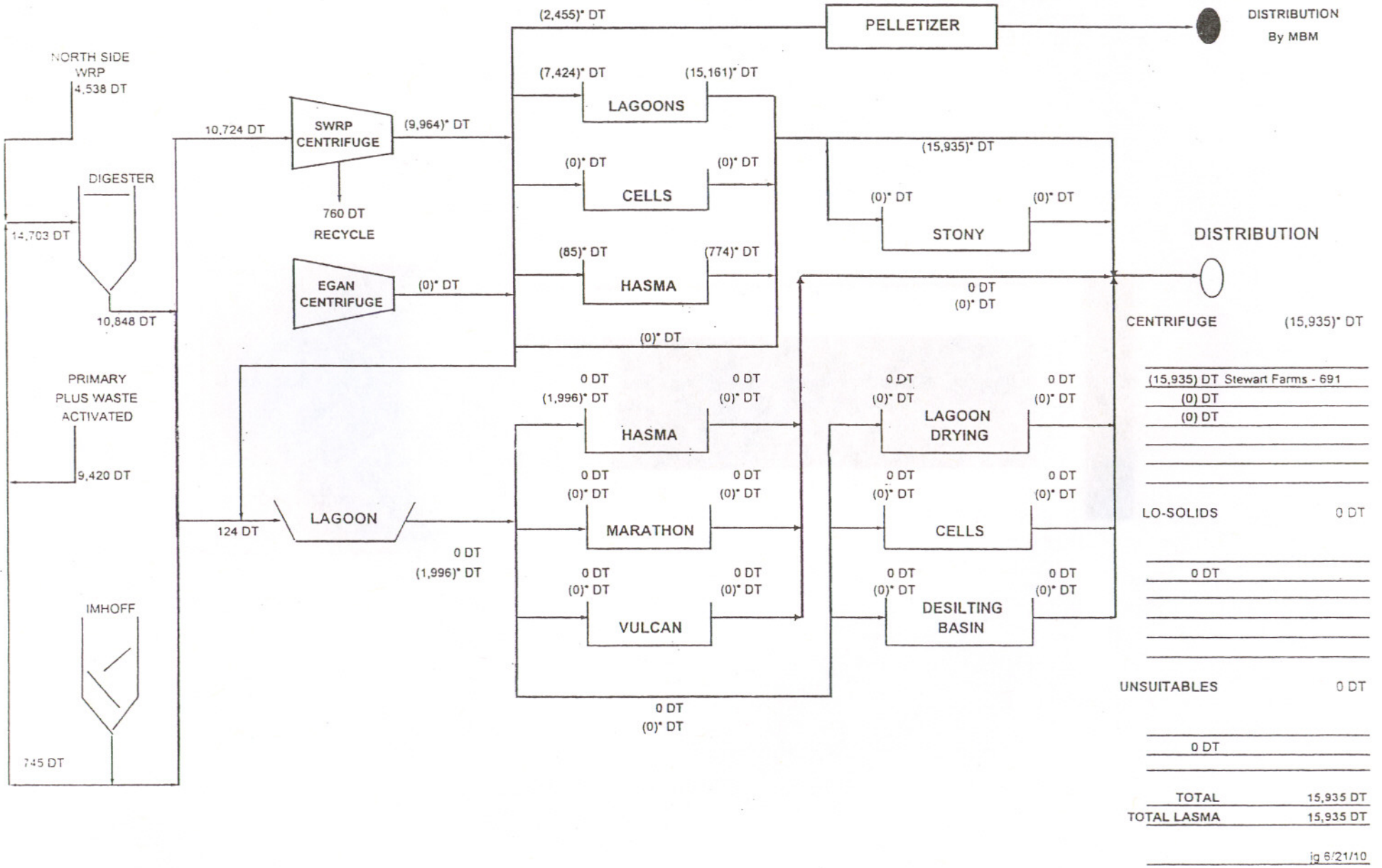


TABLE 1: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT
FOR AGITATION-DRIED, ANAEROBICALLY-DIGESTED SOLIDS

No.	Name and Address of User	Source	Dates	Quantity (dry tons) 2010 May	Quantity (dry tons) 2010 Cumulative	Biosolids Use	Application Area (acres)	Application Rate (tons/acre)	Analysis
1.	Mount Olive Cemetery 3800 N. Narragansett Ave. Chicago	Calumet WRP[1] – East drying area	5	9.4	9.4	Soil amendment to establish turf on graves.	0.1	94.0	Table 2
2.	Oakwood Cemetary 1035 East 67th Street Chicago	Calumet WRP – East drying area	5	9.8	9.8	Nutrient sources to establish turf on graves.	0.1	98.0	Table 3
3.	Union Creek Park Frankfort Sq. Park District 19000 S. 80th Ave. Frankfort	Calumet WRP – East drying area	6	65.7	65.7	Fertilizer topdressing for football fields.	15	4.4	Table 4
4.	Cinder Ridge Golf Course 24801 Lakepoint Drive Wilmington	Calumet WRP – East drying area	20, 27	75.8	75.8	Topdressing on the fairway.	100	0.8	Table 5
5.	Pioneer Park West Chicago Park District 479 W. Forest Ave. West Chicago	Stickney WRP – LASMA drying area	6, 27	115.1	115.1	Topdressing of athletic field.	2	57.6	Table 6
6.	Coal City High School 655 W. Division Coal City	Stickney WRP – LASMA drying area	20, 25	24.0	24.0	Topdressing of athletic field.	1.3	18.4	Table 7
7.	Thornton Fractional South High School 18500 S. Burnham Ave. Lansing	Calumet WRP – East drying area	6	25.4	25.4	Topdressing of athletic field.	1.3	19.5	Table 8

TABLE 1: CONTROLLED SOLIDS DISTRIBUTION PROGRAM USER INFORMATION REPORT
FOR AGITATION-DRIED, ANAEROBICALLY-DIGESTED SOLIDS

No.	Name and Address of User	Source	Dates	Quantity (dry tons) 2010 May	Quantity (dry tons) 2010 Cumulative	Biosolids Use	Application Area (acres)	Application Rate (tons/acre)	Analysis
8.	Thornton Fractional North High School 755 S. Pulaski Ave. Calumet City	Stickney WRP – LASMA drying area	25, 27	25.9	25.9	Topdressing of athletic field.	1.6	16.2	Table 9
9.	Podmajersky, Inc. 1945 S. Halsted St. Chicago	Stickney WRP – LASMA drying area	20	37.2	37.2	Soil amendment to established turf.	0.2	186.0	Table 10

[1]WRP – Water Reclamation Plant.

TABLE 2: ANALYSIS[1] OF DIGESTED BIOSOLIDS APPLIED TO LAND AT MOUNT OLIVE CEMETERY, 3800 N. NARRAGANSETT AVE., CHICAGO, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING MAY 2010

Constituent	Units	Concentration
pH		6.5
Total Solids	%	61.2
Total Volatile Solids	"	40.1
Volatile Acids as Acetic Acid	mg/kg	157
Total Kjeldahl-N	"	11,364
NH_3-N	"	812
Total P	"	14,585
As	"	<10
Cd	"	3.8
Cr	"	102
Cu	"	462
Hg	"	1.2
K	"	3,443
Mn	"	1,017
Mo	"	16.3
Ni	"	43.8
Pb	"	117
Se	"	5.3
Zn	"	1,138

[1]Results based on one sample.

TABLE 3: ANALYSIS[1] OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE OAKWOOD CEMETERY, 1035 E. 67TH STREET, CHICAGO, IL, FROM THE CALUMETWATER RECLAMATION PLANT EAST DRYING AREA DURING MAY 2010

Constituent	Units	Concentration
pH		6.5
Total Solids	%	61.2
Total Volatile Solids	"	40.1
Volatile Acids as Acetic Acid	mg/kg	157
Total Kjeldahl-N	"	11,364
NH_3-N	"	812
Total P	"	14,585
As	"	<10
Cd	"	3.8
Cr	"	102
Cu	"	462
Hg	"	1.2
K	"	3,443
Mn	"	1,017
Mo	"	16.3
Ni	"	43.8
Pb	"	117
Se	"	5.3
Zn	"	1,138

[1]Results based on one sample.

TABLE 4: ANALYSIS[1] OF DIGESTED BIOSOLIDS APPLIED TO LAND AT FRANKFORT SQUARE PARK DISTRICT, 19900 S. 80TH AVE., FRANKFORT, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING MAY 2010

Constituent	Units	Concentration
pH		6.5
Total Solids	%	61.2
Total Volatile Solids	"	40.1
Volatile Acids as Acetic Acid	mg/kg	157
Total Kjeldahl-N	"	11,364
NH_3-N	"	812
Total P	"	14,585
As	"	<10
Cd	"	3.8
Cr	"	102
Cu	"	462
Hg	"	1.2
K	"	3,443
Mn	"	1,017
Mo	"	16.3
Ni	"	43.8
Pb	"	117
Se	"	5.3
Zn	"	1,138

[1]Results based on one sample.

TABLE 5: ANALYSIS[1] OF DIGESTED BIOSOLIDS APPLIED TO LAND AT CINDER RIDGE GOLF COURSE, 24801 LAKEPOINT DR., WILMINGTON, IL, FROM THE CALUMET WATER RECLAMATION PLANT EAST DRYING AREA DURING MAY 2010

Constituent	Units	Concentration
pH		6.4
Total Solids	%	65.4
Total Volatile Solids	"	39.2
Volatile Acids as Acetic Acid	mg/kg	195
Total Kjeldahl-N	"	18,882
NH_3-N	"	157
Total P	"	27,169
As	"	<10
Cd	"	3.9
Cr	"	101
Cu	"	475
Hg	"	1.4
K	"	3,288
Mn	"	1,049
Mo	"	13.9
Ni	"	42.0
Pb	"	123
Se	"	4.0
Zn	"	1,187

[1]Results based on two samples.

TABLE 6: ANALYSIS[1] OF DIGESTED BIOSOLIDS APPLIED TO LAND AT PIONEER PARK, 479 W. FOREST AVE., WEST CHICAGO, IL, FROM THE STICKNEY WATER RECLAMATION PLANT LAWNDALE AVENUE SOLIDS MANAGMENT AREA DRYING AREA DURING MAY 2010

Constituent	Units	Concentration
pH		6.2
Total Solids	%	63.6
Total Volatile Solids	"	41.3
Volatile Acids as Acetic Acid	mg/kg	154
Total Kjeldahl-N	"	25,318
NH_3-N	"	1,612
Total P	"	24,418
As	"	<10
Cd	"	4.4
Cr	"	182
Cu	"	475
Hg	"	1.6
K	"	1,969
Mn	"	507
Mo	"	13.0
Ni	"	48.5
Pb	"	146
Se	"	<4
Zn	"	1,021

[1]Results based on two samples.

TABLE 7: ANALYSIS[1] OF DIGESTED BIOSOLIDS APPLIED TO LAND AT COAL CITY HIGH SCHOOL, 655 W. DIVISION, COAL CITY, IL, FROM THE STICKNEY WATER RECLAMATION PLANT LAWNDALE AVENUE SOLIDS MANAGEMENT AREA DRYING AREA DURING MAY 2010

Constituent	Units	Concentration
pH		6.0
Total Solids	%	61.2
Total Volatile Solids	"	41.1
Volatile Acids as Acetic Acid	mg/kg	203
Total Kjeldahl-N	"	23,958
NH_3-N	"	1,486
Total P	"	24,330
As	"	<10
Cd	"	4.3
Cr	"	179
Cu	"	474
Hg	"	1.7
K	"	1,730
Mn	"	505
Mo	"	12.5
Ni	"	47.8
Pb	"	146
Se	"	5.0
Zn	"	1,007

[1]Results based on one sample.

TABLE 8: ANALYSIS[1] OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THORNTON FRACTIONAL SOUTH HIGH SCHOOL, 18500 S. BURNHAM AVE., LANSING, IL, FROM THE STICKNEY WATER RECLAMATION PLANT LAWNDALE AVENUE SOLIDS MANAGEMENT AREA DRYING AREA DURING MAY 2010

Constituent	Units	Concentration
pH		6.0
Total Solids	%	61.2
Total Volatile Solids	"	41.1
Volatile Acids as Acetic Acid	mg/kg	203
Total Kjeldahl-N	"	23,958
NH_3-N	"	1,486
Total P	"	24,330
As	"	<10
Cd	"	4.3
Cr	"	179
Cu	"	474
Hg	"	1.7
K	"	1,730
Mn	"	505
Mo	"	12.5
Ni	"	47.8
Pb	"	146
Se	"	5.0
Zn	"	1,007

[1]Results based on one sample.

TABLE 9: ANALYSIS[1] OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THORNTON FRACTIONAL NORTH HIGH SCHOOL, 755 S. PULASKI AVE., CALUMET CITY, IL, FROM THE STICKNEY WATER RECLAMATION PLANT LAWNDALE AVENUE SOLIDS MANAGEMENT AREA DRYING AREA DURING MAY 2010

Constituent	Units	Concentration
pH		6.2
Total Solids	%	63.6
Total Volatile Solids	"	41.3
Volatile Acids as Acetic Acid	mg/kg	154
Total Kjeldahl-N	"	25,318
NH_3-N	"	1,612
Total P	"	24,418
As	"	<10
Cd	"	4.4
Cr	"	182
Cu	"	475
Hg	"	1.6
K	"	1,969
Mn	"	507
Mo	"	13.0
Ni	"	48.5
Pb	"	146
Se	"	<4
Zn	"	1,021

[1]Results based on one sample.

TABLE 10: ANALYSIS[1] OF DIGESTED BIOSOLIDS APPLIED TO LAND AT PODMAJERSKY, INC., 1945 S. HALSTED ST., CHICAGO, IL, FROM THE STICKNEY WATER RECLAMATION PLANT LAWNDALE AVENUE SOLIDS MANAGEMENT AREA DRYING AREA DURING MAY 2010

Constituent	Units	Concentration
pH		6.0
Total Solids	%	61.2
Total Volatile Solids	"	41.1
Volatile Acids as Acetic Acid	mg/kg	203
Total Kjeldahl-N	"	23,958
NH_3-N	"	1,486
Total P	"	24,330
As	"	<10
Cd	"	4.3
Cr	"	179
Cu	"	474
Hg	"	1.7
K	"	1,730
Mn	"	505
Mo	"	12.5
Ni	"	47.8
Pb	"	146
Se	"	5.0
Zn	"	1,007

[1]Results based on one sample.