Metropolitan Water Reclamation District of Greater Chicago

RESEARCH AND DEVELOPMENT DEPARTMENT

REPORT NO. 07-51

MONTHLY CONTROLLED SOLIDS

DISTRIBUTION REPORT

JUNE 2007

AUGUST 2007

Protecting Our Water Environment

Metropolitan Water Reclamation District of Greater Chicago

100 EAST ERIE STREET CHICAGO, ILLINOIS 60611-3154 312·751·5600

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

August 20, 2007

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 IEPA Permit No. 2005-SC-3793, June 2007

This letter transmits information and data for the Metropolitan Water Reclamation District of Greater Chicago (District) - Controlled Solids Distribution Program for June 2007, as required by Illinois Environmental Protection Agency Permit No. 2005-SC-3793.

Sludge flow schematic diagrams for solids processed during June 2007 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 five sites in June. The user information report for the Luther Burbank Elementary School, 2035 N. Mobile Avenue, Chicago is presented in Table 1, and the analysis of composite biosolids delivered in June to that site presented in Table 2.

The user information report for the Summit Park District, 5700 S. Archer Avenue, Summit is presented in Table 3, and the analysis of composite biosolids delivered in June to that site is presented in Table 4.

The user information report for the Andrew High School, 9000 W. 171st Street, Tinley Park is presented in Table 5, and the analysis of composite biosolids delivered in June to that site is presented in Table 6.

The user information report for the Coyote Run Golf Course, 720 S. Kedzie Avenue, Flossmoor is presented in Table 7, and the analysis of composite biosolids delivered in June to that site is presented in Table 8.

Subject: Metropolitan Water Reclamation District of Greater Chicago – Controlled Solids Distribution Program IEPA Permit No. 2005-SC-3793, June 2007

The user information report for the Southwest Chicago Christian School, 12001 S. Oak Park Avenue, Palos Heights is presented in Table 9, and the analysis of composite biosolids delivered in June to that site is presented in Table 10.

Very truly yours,

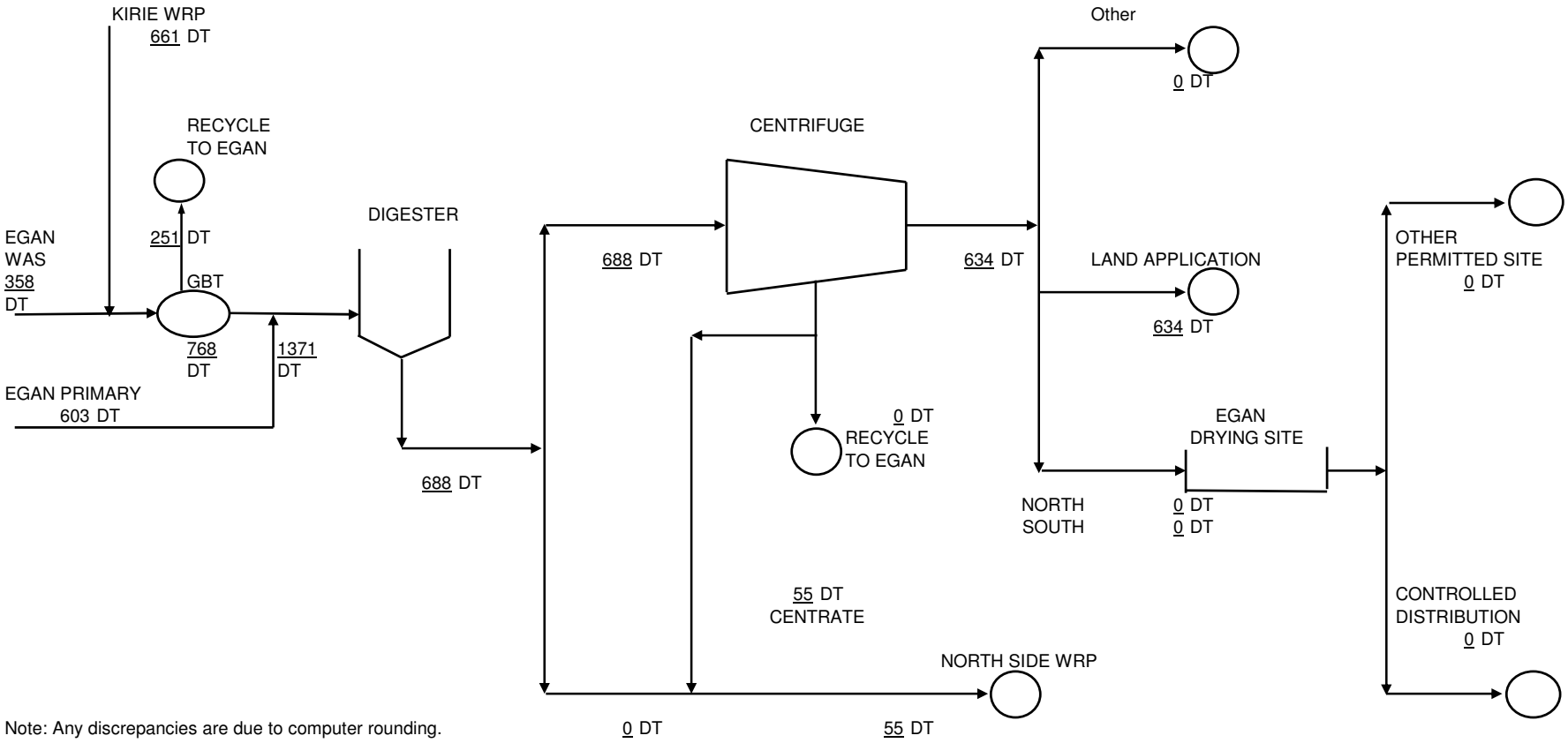
Louis Kollias
Director
Research and Development

LK:KK:spy
Attachments
cc w/att.: Aistars (USEPA)
Sulski (IEPA)
Sobanski
Granato/O'Connor/Cox
cc wo/att: Levy/Quintanilla
Sharma /Carmody
Frost/Collins

J.E. EGAN WRP SOLIDS DISTRIBUTION-

June-07

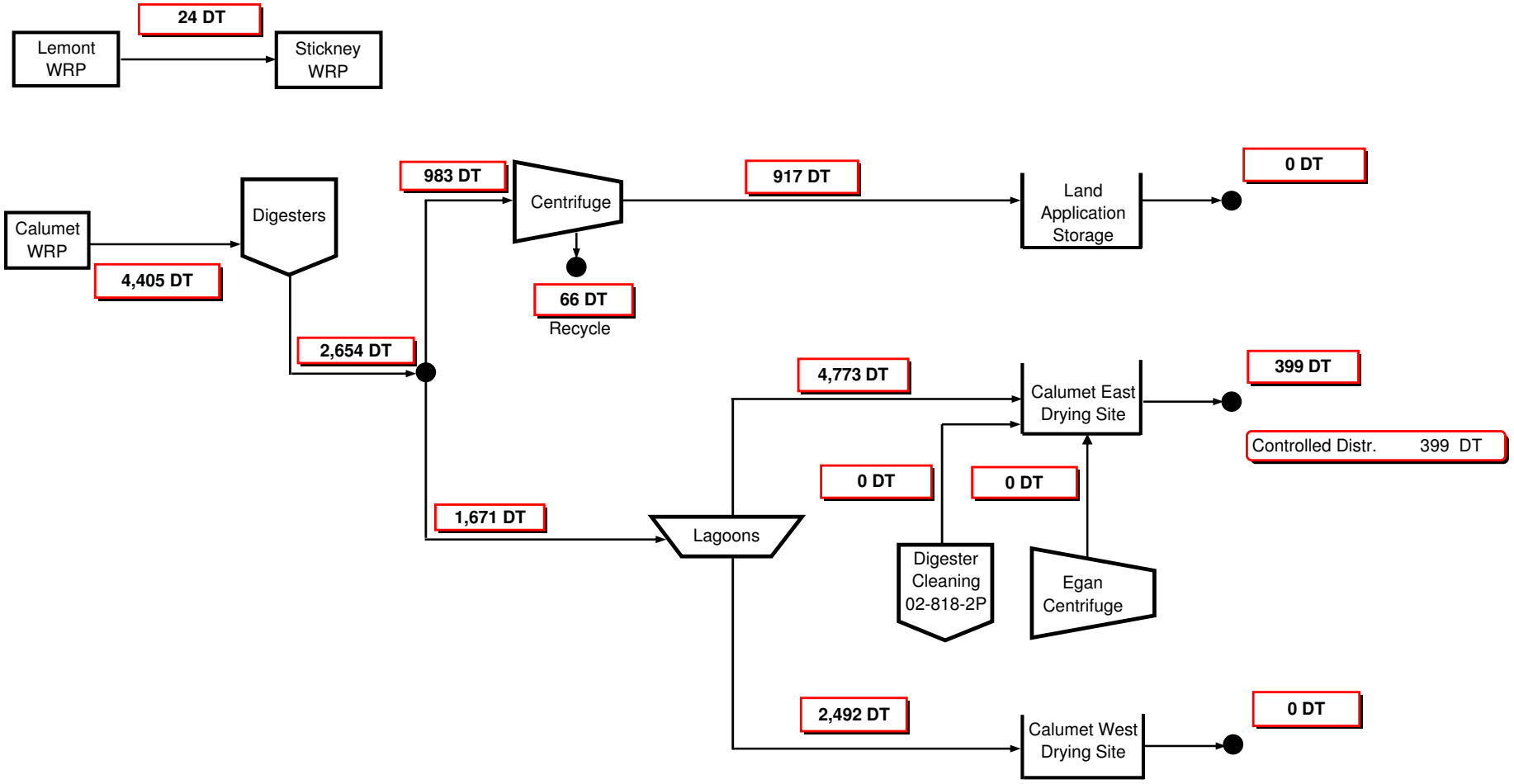
FIGURE 1



Note: Any discrepancies are due to computer rounding.

CALUMET WRP SOLIDS DISTRIBUTION - June 2007

Figure 2



STICKNEY WATER RECLAMATION PLANT SOLIDS DISTRIBUTION FOR JUNE 2007

Figure 3

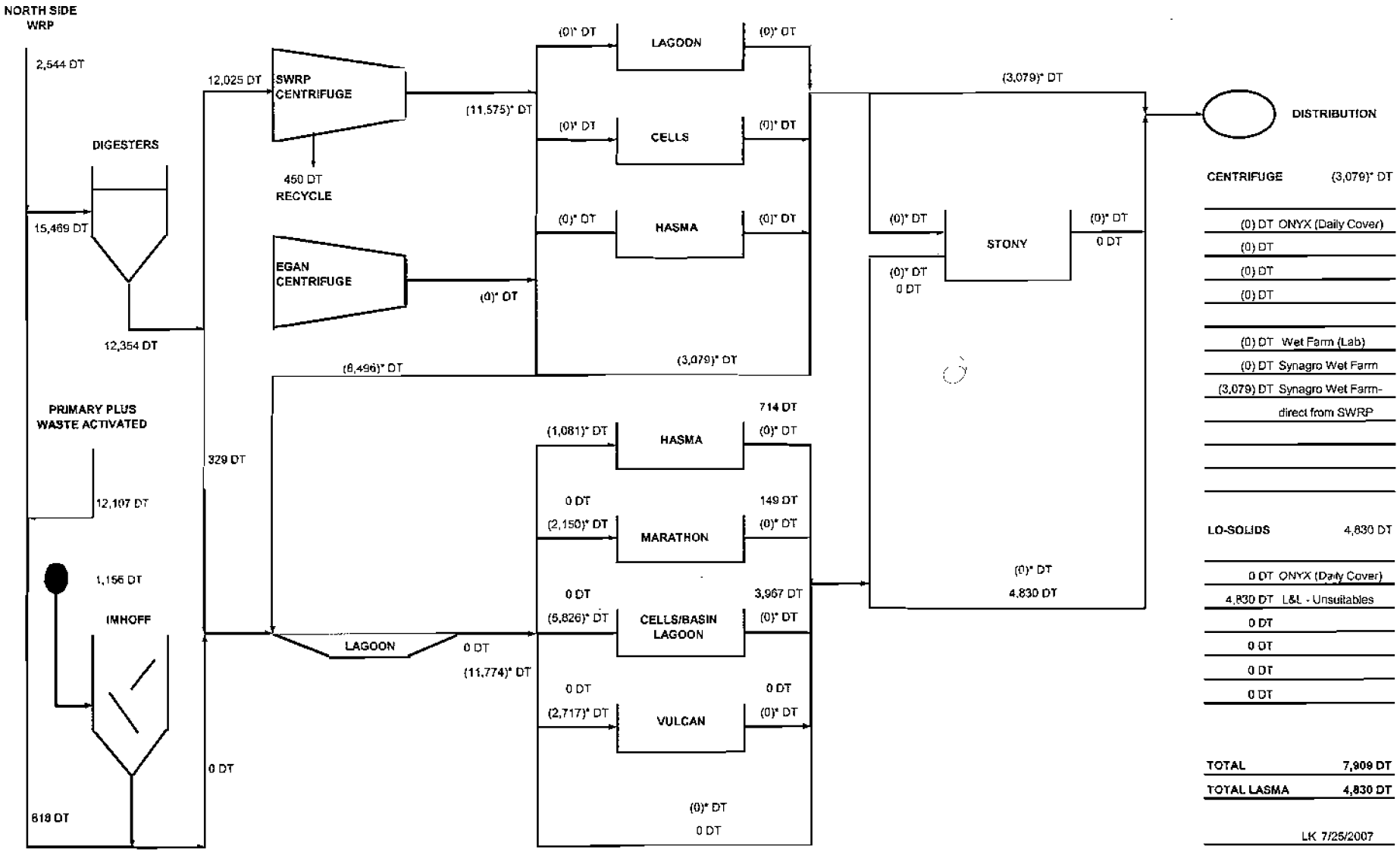


TABLE 1: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	Luther Burbank Elementary School
2.	Address of User:	2035 N. Mobile Ave. Chicago, IL 60639
3.	Type of Solids and Source:	Agitation dried anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.
4.	Quantity Received (June 2007) :	101.74 dry tons
	Cumulative Quantity Received in 2007 :	101.74 dry tons
5.	Date Biosolids Received:	June 1, 4, and 13, 2007
6.	Use of Biosolids at Site:	Used as soil conditioner and nutrient source for seeding turf on soccer fields
7.	Size of Application Area:	3.01 acres
8.	Application Rate:	33.8 dry tons/acre

TABLE 2: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE LUTHER BURBANK ELEMENTARY SCHOOL SOCCER FIELDS AT 2035 NORTH MOBILE AVENUE, CHICAGO, IL FROM THE CALUMET EAST DRYING AREA DURING JUNE 2007

Constituent	Unit	Concentration
pH		6.5
Total Solids	%	69.7
Total Volatile Solids	"	31.8
Volatile Acids as Acetic Acid	mg/dry kg	70
Total Kjeldahl-N	"	13,337
NH_3-N	"	206
Total P	"	16,983
K	"	4,811
Cd	"	8.7
Cr	"	127
Cu	"	292
Pb	"	106
Hg	"	1.18
Mo	"	8.9
As	"	6.9
Mn	"	685
Ni	"	35.0
Se	"	5.5
Zn	"	911

*Results based on two samples.

TABLE 3: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	Summit Park District
2.	Address of User:	5700 S. Archer Avenue Summit, IL 60501
3.	Type of Solids and Source:	Agitation dried anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.
4.	Quantity Received (June 2007):	157.62 dry tons
	Cumulative Quantity Received in 2007:	157.62 dry tons
5.	Date Biosolids Received:	June 6 and 13, 2007
6.	Use of Biosolids at Site:	Used as soil conditioner and nutrient source for enhancing turf growth on athletic fields
7.	Size of Application Area:	14 acres
8.	Application Rate:	12.26 dry tons/acre

TABLE 4: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE SUMMIT PARK DISTRICT ATHLETIC FIELDS, 5700 S. ARCHER AVE., SUMMIT, IL FROM THE CALUMET EAST DRYING AREA DURING JUNE 2007

Constituent	Units	Concentration
pH		6.8
Total Solids	%	71.7
Total Volatile Solids	"	27.2
Volatile Acids as Acetic Acid	mg/dry kg	64
Total Kjeldahl-N	"	13,917
NH_3-N	"	292
Total P	"	15,412
K	"	4,710
Cd	"	7.2
Cr	"	114
Cu	"	369
Pb	"	105
Hg	"	0.55
Mo	"	12.1
As	"	6.2
Mn	"	893
Ni	"	36.5
Se	"	7
Zn	"	908

*Results based on two samples.

TABLE 5: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	Andrew High School
2.	Address of User:	9000 W. 171st Street Tinley Park, IL 60477
3.	Type of Solids and Source:	Agitation dried anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.
4.	Quantity Received (June 2007):	34.01 dry tons
	Cumulative Quantity Received in 2007:	34.01 dry tons
5.	Date Biosolids Received:	June 20, 2007
6.	Use of Biosolids at Site:	Used as soil conditioner and nutrient source for turf renovation on soccer fields
7.	Size of Application Area:	4 acres
8.	Application Rate:	8.5 dry tons/acre

TABLE 6: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE ANDREW HIGH SCHOOL SOCCER FIELDS, 9000 W. 171st ST., TINLEY PARK, IL DURING JUNE 2007

Constituent	Units	Concentration
pH		6.7
Total Solids	%	76.4
Total Volatile Solids	"	34.1
Volatile Acids as Acetic Acid	mg/dry kg	149
Total Kjeldahl-N	"	13,945
NH_3-N	"	682
Total P	"	15,613
K	"	5,439
Cd	"	9.3
Cr	"	145
Cu	"	363
Pb	"	116
Hg	"	1.00
Mo	"	11.4
As	"	11.2
Mn	"	783
Ni	"	39.6
Se	"	16.8
Zn	"	1,046

*Results based on one sample.

TABLE 7: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	Coyote Run Golf Course
2.	Address of User:	720 S. Kedzie Avenue Flossmoor, IL 60422
3.	Type of Solids and Source:	Agitation dried anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.
4.	Quantity Received (June 2007):	74.46 dry tons
	Cumulative Quantity Received in 2007:	137.09 dry tons
5.	Date Biosolids Received:	June 18, 2007
6.	Use of Biosolids at Site:	Used as soil conditioner and nutrient source for enhancing turf growth on golf course roughs
7.	Size of Application Area:	6 acres
8.	Application Rate:	12.41 dry tons/acre

TABLE 8: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE COYOTE RUN GOLF COURSE AT 720 SOUTH KEDZIE AVENUE, FLOSSMOOR, IL FROM THE CALUMET EAST DRYING AREA DURING JUNE 2007

Constituent	Units	Concentration
pH		6.5
Total Solids	%	78.9
Total Volatile Solids	"	34.2
Volatile Acids as Acetic Acid	mg/dry kg	125
Total Kjeldahl-N	"	13,059
NH_3-N	"	582
Total P	"	14,864
K	"	4,827
Cd	"	8.8
Cr	"	138
Cu	"	386
Pb	"	117
Hg	"	0.88
Mo	"	11.7
As	"	11.0
Mn	"	771
Ni	"	38.6
Se	"	10.4
Zn	"	1,073

*Results based on one sample.

TABLE 9: CONTROLLED SOLIDS DISTRIBUTION PROGRAM
USER INFORMATION REPORT

1.	Name of User:	Southwest Chicago Christian School
2.	Address of User:	12001 S. Oak Park Avenue Palos Heights, IL 60463
3.	Type of Solids and Source:	Agitation dried anaerobically digested biosolids from the Calumet WRP. Drying was done at the Calumet East solids drying area.
4.	Quantity Received (June 2007):	31.6 dry tons
	Cumulative Quantity Received in 2007:	31.6 dry tons
5.	Date Biosolids Received:	June 26, 2007
6.	Use of Biosolids at Site:	Used as soil conditioner and nutrient source for enhancing turf growth on a football field
7.	Size of Application Area:	2 acres
8.	Application Rate:	15.8 dry tons/acre

TABLE 10: ANALYSIS* OF DIGESTED BIOSOLIDS APPLIED TO LAND AT THE SOUTHWEST CHICAGO CHRISTIAN HIGH SCHOOL FOOTBALL FIELD AT 12001 SOUTH OAK PARK AVENUE , PALOS HEIGHTS, IL FROM THE CALUMET EAST DRYING AREA DURING JUNE 2007

Constituent	Units	Concentration
pH		6.9
Total Solids	%	74.4
Total Volatile Solids	"	32.6
Volatile Acids as Acetic Acid	mg/dry kg	121
Total Kjeldahl-N	"	7,482
NH_3-N	"	544
Total P	"	12,927
K	"	6,647
Cd	"	9.3
Cr	"	147
Cu	"	354
Pb	"	122
Hg	"	0.91
Mo	"	12
As	"	13.3
Mn	"	732
Ni	"	40.3
Se	"	16.4
Zn	"	1,035

*Results based on one sample.