City of Chattanooga

Public Works – Waste Resources Division

Jerry W. Stewart, P.E.
Director, Waste Resources

Ron Littlefield
Mayor

February 18, 2013

Clean Water Act Enforcement Section
U.S. EPA REGION 4
61 Forsyth Street
Atlanta, GA 30303-8960

Subject: NPDES Permit No. TN0024210
Moccasin Bend Wastewater Treatment Plant
City of Chattanooga, TN
40 CFR Part 503 Annual Sludge Report 2012

Dear Gentlemen:

Attached is the subject annual report as outlined in the requirements of 40 CFR Part 503.

If there is need for further clarification or information, please let us know.

Very truly yours,

Signature on File

Alice L. Cannella, P.E.
Interim Director- Waste Resources Division

cc: Steve Leach
Mike Patrick
TDEC-DWPC Chattanooga
TDEC-DWPC Nashville
Synagro South, LLC
Material Matters – Aaron Stephens

455 Moccasin Bend Road • Chattanooga, TN 37405
OFFICE: (423) 757-5026 • FAX: (423) 757-4904
An Equal Opportunity Employer

2012 ANNUAL SLUDGE REPORT
MOCCASIN BEND WASTEWATER TREATMENT PLANT
CHATTANOOGA, TN
TN0024210

1.0 GENERAL INFORMATION

1.1 Facility name, address, and phone number:

Moccasin Bend Wastewater Treatment Plant
455 Moccasin Bend Road
Chattanooga, TN 37405
Phone: 423/757-5026
Fax: 423/757-4904

1.2 Facility NPDES Permit Number:

NPDES NO. TN0024210

1.3 Name, address, and phone number of the responsible official:

Ms. Alice L. Cannella, P.E.
Interim Director-Waste Resources Division
Moccasin Bend Wastewater Treatment Plant
455 Moccasin Bend Road
Chattanooga, TN 37405
Phone: 423/757-5026
Fax: 423/757-4904
E-mail: cannella_a@chattanooga.gov

Tennessee Wastewater Operator Certification No. (on file)

1.4 Name, address, and phone number of the facility operator:

Ms. Alice L. Cannella, P.E.
Plant Superintendent
Moccasin Bend Wastewater Treatment Plant
455 Moccasin Bend Road
Chattanooga, TN 37405
Phone: 423/757-5026
Fax: 423/757-4904
E-mail: cannella_a@chattanooga.gov

Tennessee Wastewater Operator Certification No. (on file)

1.5 Name, address, and phone number of additional preparers and/or appliers:

A. Preparer

Ms. Alice L. Cannella, P.E.
Moccasin Bend Wastewater Treatment Plant
455 Moccasin Bend Road
Chattanooga, TN 37405
Phone: 423/757-5026
Fax: 423/757-4904

E-mail: cannella_a@chattanooga.gov

B. Applier

Synagro South, LLC
Mr. Bill Bailey, Operations Director
P.O. Box 4130
Chattanooga, TN 37405
(423) 756-1870
(865) 594-7609
FAX: (423) 756-1871
E-mail: BBailey@Synagro.com

1.6 Dry metric tons of Biosolids land applied:

All Biosolids generated at the Moccasin Bend WWTP were land applied. The quantities of Biosolids generated by the Moccasin Bend WWTP are summarized in **Appendix A.**

There were a total of 24,019 dry metric tons (69,684 wet tons) of Biosolids land applied on 2,211 hectares (5,463 acres). Currently, there are a total of 12,659 hectares (31,281 acres) available for land application.

Please note there is a difference between the quantities reported by the City and Synagro South, LLC. This difference is probably the result of small quantities of wood mulch being added to each truck bed and load to facilitate ease of discharge of the Biosolids in the field.

1.7 Location of land application site, disposal site, landfill or incinerator:

All Biosolids were land applied during 2012 by Synagro South, LLC. Biosolids were applied in Bledsoe, Hamilton, Marion, Meigs, Grundy, Rhea, and Sequatchie Counties in Tennessee. See **Appendix B, Appendix B (1), and Appendix B (2)** for the various land application sites. Data is reported on an annual basis.

1.8 Biosolids/Land Application Data Management System

In 2007, the City acquired a data management software system for its biosolids and land application program and additional refinements were made to the system in 2008. Most of the biosolids data provided in this report are outputs from this data management system. This system is being used to better track the locations where the biosolids are being applied; the quantities of biosolids being applied; the quality of the biosolids being applied; and compliance with State and Federal biosolids regulations.

This data management system is Material Manager database that was developed and is supported by:

MATERIAL MATTERS, Inc.
P.O. Box 224
Elizabethtown, PA 17022
Phone: (717) 367-9697
FAX: (717) 367-0367.

1.9 National Biosolids Partnership (NBP) and Biosolids Management Program (BMP)

The City joined the National Biosolids Partnership (NBP) in August 2005. The purpose of this effort was to ensure the creditability, confidence and support of its biosolids and land application program. The City adopted a Biosolids Management Policy Statement which references the NBP Code of Good Practice, and developed a biosolids management program in conformance to the NBP requirements. In October 2008, the City received a Third Party Verification Audit of the program, with additional audit follow-ups in January 2009, January 2010, April 2010, February 2011, February 2012 and January 2013. Chattanooga became the 23rd agency to have received this certification, the first (1st) in Tennessee.

2.0 <u>SPECIFIC 40 CFR 503 REQUIREMENTS</u>

2.1 Applicable Conditions

All Biosolids were land applied during 2012. As described in Section 3.1, an insignificant amount of biosolids that were used for testing as well as a small amount of biosolids that has been spilled on the plant site, were sent to the landfill in 2012.

The City of Chattanooga entered into a three (3) year contract with Synagro South, LLC to land apply the biosolids, with the option to renew for two (2) additional one (1) year terms.

2.1.1 Pollutant Concentrations - Table 3 503.13

The results of the laboratory analyses for these pollutant concentrations for the Biosolids land applied may be found in **Appendix C, Appendix D, and Appendix E.**

2.1.2 Pathogen Requirements - Sewage Sludge Class B 503.32(b)(3)

All Biosolids produced by Moccasin Bend WTTP were classified by the City as Class B. They met requirements of 503.32 (b) (3) Class B-Alternative 2. They met the requirements of Processes to Significantly Reduce Pathogens (PSRP) with lime stabilization (Appendix B to Part 503-Pathogen Treatment Processes A.5). (See **Appendix G** also)
Appendix F summarizes the fecal coliform testing performed to demonstrate that the biosolids meet the requirement for Class B – Alternative 1.

2.1.3 Vector Attraction Reduction - 503.33(b) (6)

All biosolids were lime stabilized and met the Vector Attraction Reduction requirements of 503.33 (b) (6). **Appendix G** summarizes the pH testing performed to demonstrate that the biosolids meet this requirement.

2.2 Description of Sludge (Biosolids) Processes

2.2.1 Current Practice

2.2.1.1 General

Biosolids generated at the Moccasin Bend Wastewater Treatment Plant during 2012 came from two (2) primary sources: centrifuges followed by post lime stabilization and J-VAP hot water vacuum filter presses.

The following paragraphs describe these sources.

2.2.1.2 High “G” Centrifuge System

Primary sludge and waste activated sludge are gravity thickened prior to sludge dewatering. The thickened mixtures are blended together with anaerobically digested primary sludge prior to being chemically conditioned with polymer before being dewatered by high "G" centrifuges. The resulting cake has a solids content of 20% to 25%.

The dewatered sludge cake is post lime stabilized using lime kiln dust. Adequate lime is added to provide a pH of 12 for two hours and to maintain a pH of 11.5 for 22 additional hours. This material has a solids content of 25% to 30%.

The high “G” system is usually operated five (5) days per week. Total production from the high “G” system during 2012 was approximately 52,758 +/- wet tons (11,404 +/- dry tons). This material was land applied for final disposal in 2012.

2.2.1.3 Low “G” Centrifuge System

The City’s low “G” centrifuge system is used to provide a back-up to the high “G” centrifuges. These centrifuges dewater the same polymer conditioned blend of sludge as the high “G” units. The resulting cake has a solids content of 15% to 20%.

The dewatered sludge cake is post lime stabilized using lime kiln dust. Adequate lime is added to provide a pH of 12 for two hours and to maintain a pH of 11.5 for 22 hours. This material has a solids content of 25% to 30%.

The low “G” system is usually operated four (4) days per week or less, depending on need. Total production from the low “G” system during 2012 was approximately 6,639 +/- wet tons (1,036 +/- dry tons). This material was land applied for final disposal in 2012.

2.2.1.4 Hot Water Vacuum Filter Press Process

The city utilizes the Siemens J-VAP filter press process which includes six (6) filter presses that have been operating since 2009.

A portion of the same thickened mixture of primary sludge, waste activated sludge, and anaerobically digested sludge that is used in the centrifuge process is being pumped to the filter press process for dewatering. Chemical conditioning takes place by the addition of ferric chloride and lime slurry. A pasteurization cycle subjects the cake solids to twenty (20) minutes of temperatures at least 160.3 degrees Fahrenheit in order to meet pathogen destruction requirements of 40 CFR Part 503 equivalent to Class A material. Resulting cake solids are approximately 60-70%. Although the City is currently land applying this material with the centrifuge cake solids as if it were all Class B material, application for certification as Class A product is currently being prepared.

2.2.2 Other Practices

2.2.2.1 General

In 2012, all biosolids produced were considered Class B for land application purposes. The City continues to move toward certification of the filter press product as Class A / EQ biosolids.

2.2.2.2 Thermophillic/Mesophillic Anaerobic Digestion Process

The primary sludge solids are gravity thickened separately. The thickened primary sludge is fed to thermophillic/mesophillic anaerobic digesters for stabilization. Detention time and temperature in this process have the capability to produce Class A biosolids. The solids from this process are chemically conditioned with polymer before dewatering with high “G” centrifuges followed by post lime stabilization using lime kiln dust, resulting in cake solids of 25-30%.

Long term the City will need to add mechanical thickening of the primary solids to fully benefit from destruction of volatile solids from this process. The City has continued to move forward to optimize its operations. In the interim any solids produced by this process are being blended with the remaining primary solids and waste activated sludge before dewatering with centrifuges.

2.3 Laboratories and Methodologies

2.3.1 General

Samples of Biosolids from each production method are collected daily and composited weekly. The 503 inorganic analyses and fecal coliform analyses are performed on these samples. At the beginning of each month, one grab sample is collected daily from each production line and analyzed for fecal coliforms until a total of seven samples are obtained. Analysis of centrifuge cake pH is performed daily when the centrifuges are in operation. Zero- and 2-hour measurements are performed in the operator laboratory, while 24 hour measurements are completed in the central laboratory.

Once each month a weekly composited sample from each dewatering train is split and analyzed for the 503 pathogen analyses (enteric viruses, fecal coliform, helminth ova, and Salmonella sp. bacteria). On a calendar quarterly basis weekly samples of the feed solids to each of the dewatering trains are analyzed for the 503 pathogen analyses (enteric viruses, fecal coliform, helminth ova, and Salmonella sp. bacteria).

Annually, weekly composite samples from each dewatering train are analyzed for PCBs and TCLP.

2.3.2 Methodologies

The laboratory methodologies for analyzing samples of the Biosolids generated by the Moccasin Bend WWTP are those found in 503.8 (b).

*Inorganic analyses were performed according to EPA SW-846, 3rd Edition, 1986, where applicable.

*Total solids, fecal coliform, and nutrient analysis were performed according to APHA Standard Methods, 18th Edition, 1992.

2.3.3 Laboratories

The 503 inorganic analyses and fecal coliform analyses are performed by:

Mr. Paul Patterson
Laboratory Manager
Moccasin Bend Wastewater Treatment Plant
455 Moccasin Bend Road
Chattanooga, TN 37405
Phone: 423/757-5026
Fax: 423/757-4904
E-mail: patterson_p@chattanooga.gov

The 503 pathogen analyses (enteric viruses, fecal coliform, helminth ova, and Salmonella sp. bacteria) are performed by:

Analytical Services
130 Allen Brook Lane
Williston, VT 05495

In association with:

Aaron B. Margolin, PhD
Professor
University of New Hampshire
Department of Microbiology
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

The TCLP & PCB analyses are performed by:

ESC Lab Sciences
12065 Lebanon Road
Mt. Juliet, TN 37122

2.4 Certifications

2.4.1 Preparer

"I certify under, penalty of law, that the Class B pathogen requirements in 503.32(b)(3) and the vector attraction requirement in 503.33(b)(6) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

02/18/2013	Signature on file	(423) 757-5026
Date	Alice L. Cannella, P.E.	Telephone Number

Interim Director-Waste Resources Division

2.4.2 Applier

See **Appendix B** for certification.

Synagro South LLC
Mr. Bill Bailey, Operations Director
P.O. Box 4130
Chattanooga, TN 37405
(423) 756-1870
(865) 594-7609
FAX: (423) 756-1871
E-mail: BBailey@Synagro.com

3.0 OTHER

On 12/15/2011 the City of Chattanooga's Moccasin Bend Wastewater Treatment Plant (MBWWTP) Biosolids were certified as a "Fertilizer"; Permit #4755; UFTRS CODE #667, and remained certified in 2012. MBWWTP assumes full responsibility for compliance with the Tennessee Commercial Fertilizer Law. As part of MBWWTP's certification a product label has been developed stating its claims and guarantees. Each quarter MBWWTP will report the dry tonnage applied, which will be subject to inspection and fees by the TDA per 40 CFR 503 pollutant concentrations regulations.

3.1 Landfill Disposal

An insignificant amount of biosolids that was used for testing purposes, as well as a small amount of biosolids that had been spilled on the plant site were sent to the landfill in 2012.

APPENDIX A
2012 QUANTITIES OF BIOSOLIDS PRODUCED

40CFR 503 ANNUAL SLUDGE REPORT
MOCCASIN BEND WWTP
CHATTANOOGA, TN
NPDES PERMIT NO. TN0024210

Biosolids Summary 2012

Month	Centrifuge Dry Tons	Centrifuge Wet Tons	Filter Press DryTons	Filter Press WetTons	Total Biosolids Dry Tons	Total Biosolids Wet Tons	Total Biosolids Dry Metric Tons	Synagro Total Biosolids Dry Tons	Synagro Total Biosolids Wet Tons	Synagro Total Biosolids Dry Metric Tons
January	830.08	4,036.02	211.10	324.20	1,041.18	4,360.22	944.56	1,163.21	4,197.39	1,055.26
February	1,284.08	6,110.62	341.30	559.90	1,625.38	6,670.52	1,474.54	1,691.30	6,243.91	1,534.35
March	1,263.66	5,853.33	385.20	632.80	1,648.86	6,486.13	1,495.85	1,613.51	7,408.82	1,463.78
April	1,214.03	5,644.48	363.40	594.30	1,577.43	6,238.78	1,431.04	1,610.43	6,719.23	1,460.98
May	1,018.85	4,943.94	709.80	1,194.80	1,728.65	6,138.74	1,568.23	1,451.39	5,604.94	1,316.70
June	1,047.06	5,190.80	383.70	658.10	1,430.76	5,848.90	1,297.99	1,689.53	6,156.86	1,532.74
July	958.19	4,554.97	562.40	923.00	1,520.59	5,477.97	1,379.48	1,484.29	4,941.97	1,346.55
August	1,057.41	4,899.01	1,059.00	1,893.00	2,116.41	6,792.01	1,920.01	1,567.90	6,131.23	1,422.40
September	985.80	4,895.90	216.00	426.40	1,201.80	5,322.30	1,090.27	1,538.27	5,379.56	1,395.52
October	1,069.73	5,120.89	545.50	965.40	1,615.23	6,086.29	1,465.34	1,596.62	5,801.20	1,448.45
November	833.64	4,028.12	411.20	759.10	1,244.84	4,787.22	1,129.32	1,236.39	4,786.31	1,121.65
December	842.40	3,967.39	523.80	968.50	1,366.20	4,935.89	1,239.42	1,213.15	3,679.54	1,100.57
Totals	12,404.93	59,245.47	5,712.40	9,899.50	18,117.33	69,144.97	16,436.04	17,855.99	67,050.96	16,198.95

Please Note: The difference between plant quantities above and land application quantities in Appendix A is because wood mulch is added as a bulk or drying agent to facilitate ease of discharging biosolids from the trucks.

APPENDIX B
2012 LAND APPLICATION SITES
ANNUAL FIELD REPORTS
AND
CERTIFICATION FORM

40CFR 503 ANNUAL SLUDGE REPORT
MOCCASIN BEND WWTP
CHATTANOOGA, TN
NPDES PERMIT NO. TN0024210

SYNAGRO

SITE RESTRICTIONS CERTIFICATION

"I certify under penalty of law, that the information that will be used to determine compliance with the site restrictions in §503.32(b)(5) was prepared for each site on which bulk sewerage sludge was applied under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

Project: CHATTANOOGA, TN MOCCASIN BEND WWTP BIOSOLIDS

Reporting Period: January – December 2012

Name: Bill Bailey, Operations Director Synagro

Phone Number: 865-594-7609

Signature: Signature on file. Bill Bailey Date: 2-15-13

The site restrictions were met through written agreements with the landowner and/or farm operator (leaseholder) specifying their obligation to comply with the site restrictions.

BIOSOLID LAND APPLICATION
ANNUAL REPORT

TOTAL WET TONS
69,684

TOTAL DRY TONS
26,477

TOTAL DRY METRIC TONS
24,019

Period of Report
January 1 thru December 31, 2012

MATERIAL MATTERS, Inc.

Fact Sheet
Calendar Year 2012
Biosolids Land Application Program
Moccasin Bend WWTP
NPDES Permit No. TN 0024210
City of Chattanooga, Tennessee

General

The information contained in this fact sheet is based on information submitted to the EPA and state regulatory agencies as part of the 40 CFR Part 503 Annual Sludge Report for 2012. (40 CFR Part 503.18)

Quantities Produced and Land Applied

Annual Quantities

- 69,684 Wet Tons/year
- 26,477 Dry Tons/year
- 24,019 Dry Metric Tons/year

Monthly Quantities

Month	Wet Tons	Dry Tons	Dry Metric Tons
January	1,446	500	454
February	3,868	1,354	1,229
March	5,133	1,820	1,651
April	10,126	3,661	3,321
May	10,728	3,906	3,543
June	7,780	2,856	2,591
July	6,719	2,555	2,318
August	4,718	1,927	1,748
September	4,268	1,737	1,576
October	4,984	2,020	1,833
November	8,110	3,374	3,061
December	1,804	766	695

Quantities Land Applied by State

State	Wet Tons	Dry Tons	Dry Metric Tons
TN	69,684	26,477	24,019

Quantities Land Applied by County

	State	County	Wet Tons	Dry Tons	Dry Metric Tons
●	TN	Bledsoe	19,979	7,322	6,643
●	TN	Grundy	3,879	1,439	1,306
●	TN	Hamilton	14,863	5,814	5,274
●	TN	Marion	6,440	2,346	2,128
●	TN	Meigs	4,375	1,658	1,504
●	TN	Rhea	14,240	5,815	5,275
●	TN	Sequatchie	5,907	2,082	1,889

Land Application Area

Total Acres Land Applied - By State

	State	Acres	Hectares
●	TN	5,463	2,211

Number of Farms and Total Acres Land Applied - By County

	State	County	Acres	Hectares	Farms
●	TN	Bledsoe	1,691	684	58
●	TN	Grundy	284	115	16
●	TN	Hamilton	1,281	518	53
●	TN	Marion	435	176	6
●	TN	Meigs	388	157	19
●	TN	Rhea	850	344	48
●	TN	Sequatchie	534	216	15

Total Acres Available for Land Application - By State

	State	Acres	Hectares
●	AL	7,641	3,092
●	TN	23,640	9,567

Total Acres Available for Land Application - By County

State	County	Acres	Hectares
AL	Blount	1,079	436
AL	Cherokee	40	16
AL	DeKalb	1,888	764
AL	Etowah	170	69
AL	Jackson	2,210	894
AL	Madison	100	40
AL	Marshall	2,155	872
TN	Bledsoe	7,550	3,055
TN	Grundy	1,390	563
TN	Hamilton	3,071	1,243
TN	Marion	5,338	2,160
TN	Meigs	1,024	414
TN	Rhea	1,408	570
TN	Sequatchie	3,860	1,562

Nutrient or Fertilizer Content

Data are averaged over 160 sampling events in 2012.

N-P-K and Lime (Ca) Content (% Dry-Wt Basis)

- Total Nitrogen (N) 3.6%
  - Organic Nitrogen (N) 3.5%
  - Ammonia Nitrogen (N) 0.1%
- Phosphorous (P) 7.8%
- Potassium (K) 0.2%
- Calcium (Ca) 10.7%
- Calcium (CaO equiv.) 3.7%

Other Nutrient Content (% Dry-Wt Basis)

- Iron (Fe) 1.6%
- Boron (B) 0.0%
- Sulfur (S) 0.8%

Total Solids & pH

- Total Solids 46.22%
- pH (std. units) 11.26

Potential Value of Nutrients in Biosolids

Value of Commercial Nutrients

- Nitrogen (N) (priced from ammonium nitrate) $1,280 /Ton
- Phosphorous as phosphate (P2O5) $500 /Ton
- Potassium as potassium oxide (K2O) $850 /Ton
- Ag Lime as calcium carbonate (CaCO3) $30 /Ton

Prices are scaled up as needed to represent the cost of "pure" nutrients: 100-0-0, 0-100-0, 0-0-100, and CCE=100, respectively.
Values are based on prices from a nutrient wholesaler in Auburn, AL, and include hauling and spreading costs.

Value of Nutrients in Biosolids

- Ammonia Nitrogen (NH4 as N) $1.65 /Dry Ton
- Organic Nitrogen (as N) $20.19 /Dry Ton
- Phosphorous as phosphate (P2O5) $89.23 /Dry Ton
- Potassium as potassium oxide (K2O) $3.52 /Dry Ton
- Ag Lime as calcium carbonate (CaCO3) $1.99 /Dry Ton
- Total: $116.59 /Dry Ton

The current year's and the next two years' mineralization of Organic Nitrogen is used in determining its immediate value. In the first three years, only 45.3% of the Organic Nitrogen is plant available, and only that portion is being assigned monetary value in this calculation. The remaining portion, as well as the other tangible benefits of adding organics to soils, is not included.

Total Annual Value of Nutrients in Biosolids Provided to Farmers

- Nitrogen (NH4 and available OrgN as N) $578,000
- Phosphorous as phosphate (P2O5) $2,363,000
- Potassium as potassium oxide (K2O) $93,000
- Ag Lime as calcium carbonate (CaCO3) $53,000

Only nutrients for which there is a net-crop need should be included in monetary valuation, on a field-by-field basis. Applications are Nitrogen-based, so the Nitrogen value should be included in its entirety. Liming of fields is typically necessary under normal farming operations, so the Ag Lime value should also be included in its entirety.

Quality Assurance/Quality Control

- Class B Biosolids (Pathogen Reduction 40 CFR 503.32) -- Biosolids may be land applied with stipulated restrictions and setbacks as defined in the regulations (40 CFR Part 503.14).
- Vector Attraction Reduction - Addition of Alkali (40 CFR 503.33(b)(6)) -- Biosolids are stabilized by the addition of lime kiln dust and raising the pH to greater than 12.0 for two (2) hours and retaining pH at or above 11.5 for an additional 22 hours as required by regulation.

1. Pollutant Concentrations (40 CFR Part 503.13 Table 3

Pollutant	*Monthly Avg. Allowable conc. (mg/kg)*	*Measured Conc. (mg/kg)*	*% of Allowable Conc.*
Arsenic	41	4.39	10.7%
Cadmium	39	4.81	12.3%
Chromium	N/A	29.89	N/A
Copper	1,500	140.68	9.4%
Lead	300	20.31	6.8%
Mercury	17	0.25	1.4%
Molybdenum	N/A	16.07	N/A
Nickel	420	53.00	12.6%
Selenium	100	5.98	6.0%
Zinc	2,800	506.00	18.1%

Data are averaged over 160 sampling events in 2012.

2. Pathogens [40 CFR Part 503.32(a) and (b)]

Class A Biosolids	*Annual Sampling Events*	*Avg Measured Conc.*	*Allowable Conc. (dry-wt basis)*
• *Salmonella*	23	<2.9	<3 MPN / 4 grams
• Viable Helminth Ova	24	<1	<1 Ova / 4 grams
• Fecal Coliform	105	<1000	<1,000 CFU / gram
• Enteric Virus	24	<1	<1 PFU / 4 grams

Class B Biosolids	*Annual Sampling Events*	*Avg Measured Conc.*	*Allowable Conc. (dry-wt basis)*
• Fecal Coliform	105	<1000	<2,000,000 CFU / gram

CFU = Colony Forming Unit
MPN = Most Probable Number
PFU = Plaque Forming Unit

Monitoring Requirements

- Minimum Monitoring Requirements (40 CFR Part 503.16, Table 1) -- For a plant generating greater than or equal to 15,000 metric tons per year, the required minimum monitoring frequency is once per month.
- City Monitoring Practices:

Total Solids, pH (grab samples)	Daily
Nutrients (N, P and K); Other Nutrients (Ca, Fe, B, and S) Regulated Metals; Fecal Coliform; and Total Solids (composite sample)	Once/Week
Pathogens for Class A and Class B biosolids	Once/Month
Pathogens (Dewatering Feed Solids)	Once/Quarter
PCB and TCLP	Once/Year

Production Methods

- Wastewater Treatment Process:
  The Moccasin Bend WWTP has a treatment capacity of 140 million gallons per day (MGD). The plant operates the following liquid treatment unit processes:
  1. Screening sand grit removal;
  2. Primary settling and scum removal;
  3. High purity oxygen activated sludge biological treatment;
  4. Final clarification;
  5. Chlorine disinfection;
  6. Sodium bisulfite dechlorination; and
  7. CSO/wet-weather treatment with a capacity of 80 MGD includes screenings and grit removal, polymer-aided primary treatment and chlorine disinfection.

- Biosolids Treatment Process:
  The Moccasin Bend WWTP has dewatering capacity of 120 dry tons per day. The plant currently operated the following liquid treatment unit processes:
  1. Gravity thickening of primary and waste-activated solids;
  2. Thermophillic/mesophillic anaerobic digestion of primary solids;
  3. Waste-activated solids are blended with digested primary solids;
  4. Chemical conditioning of blended solids with polymer;
  5. Conditioned solids are dewatered via two (2) 60 dry ton per day high-"G" centrifuges or two (2) 50 dry ton/day low-"G" centrifuges;
  6. Dewatered solids are lime stabilized with lime kiln dust to produce Class B bioaolids that are land applied on agricultural sites.

Other Considerations

Environmental and Conserved Natural Resources Value

- 452 tons of Nitrogen were recycled, rather than going to landfill.
- 18,400 mmBTU (million BTU) of natural gas was conserved, since farmers didn't need to purchase manufactured chemical fertilzer.
- That's 18,400,000 cubic feet of natural gas.
- If used to generate power, that natural gas could make 5,390,000 kW-hrs of electricity.
- That could run a typical 1000W hair dryer for 615 years.
- 1,110 tons of CO2 didn't end up in the atmosphere.

APPENDIX B (1)
2012 LAND APPLICATION SITES
Agronomic Loading Rate Summary

40CFR 503 ANNUAL SLUDGE REPORT
MOCCASIN BEND WWTP
CHATTANOOGA, TN
NPDES PERMIT NO. TN0024210

Fields with activity in 2012 Calendar Year (summary by crop year, which can include other-calendar-year spreading)
qry_annual-PAN-summary

FarmCode	FarmName	Field	CropYear	Acres	MinDate	MaxDate	NetNNeed	PANapplied	WT
BL020	CAGLE, BILLY E	01	2012	23	2/8/2012	2/8/2012	37.3	30.9	88.4
BL020	CAGLE, BILLY E	03	2012	14.3	2/8/2012	2/8/2012	52.1	48.4	85.9
BL020	CAGLE, BILLY E	04	2012	22.7	2/9/2012	2/10/2012	89.7	77.2	217.6
BL020	CAGLE, BILLY E	05	2012	44.8	2/10/2012	2/10/2012	84.9	51.2	284.6
BL020	CAGLE, BILLY E	06	2012	40.3	2/11/2012	2/11/2012	87.6	73.7	368.9
BL020	CAGLE, BILLY E	07	2012	6.6	2/8/2012	2/8/2012	63.2	53.3	43.7
BL021	HAMILTOM, BETTY	01	2012	35.4	3/7/2012	3/8/2012	160.5	103.9	453.7
BL021	HAMILTOM, BETTY	03	2012	48	3/8/2012	3/8/2012	92.6	36.1	207.1
BL021	HAMILTOM, BETTY	04	2012	31.9	3/9/2012	3/10/2012	165.0	127.2	491.5
BL021	HAMILTOM, BETTY	05	2012	33.9	3/10/2012	3/12/2012	120.0	66.3	290.7
BL022	BURNS FARM CORPORATION	01	2012	27.3	4/24/2012	4/25/2012	86.5	69.5	233.4
BL022	BURNS FARM CORPORATION	02	2012	22.9	2/27/2012	2/27/2012	84.6	82.4	260.0
BL022	BURNS FARM CORPORATION	03	2012	13.1	4/25/2012	4/25/2012	87.5	68.1	109.8
BL022	BURNS FARM CORPORATION	05	2012	6.9	2/28/2012	2/28/2012	85.0	69.2	65.9
BL022	BURNS FARM CORPORATION	06	2012	20.9	3/16/2012	3/16/2012	117.4	102.8	264.3
BL022	BURNS FARM CORPORATION	07	2012	28.4	4/24/2012	4/24/2012	118.3	99.1	346.4
BL022	BURNS FARM CORPORATION	08	2012	16.6	2/27/2012	2/28/2012	81.4	80.2	183.6
BL022	BURNS FARM CORPORATION	09	2012	24.2	4/23/2012	4/23/2012	119.0	101.2	301.3
BL022	BURNS FARM CORPORATION	10	2012	31.4	7/9/2012	7/10/2012	81.9	70.6	243.8
BL022	BURNS FARM CORPORATION	11	2012	12.5	7/10/2012	7/10/2012	86.9	57.2	86.7
BL022	BURNS FARM CORPORATION	12	2012	33.2	7/10/2012	7/11/2012	112.1	94.3	355.1
BL023	BURNS FARM CORPORATION	01	2012	22.9	7/19/2012	7/19/2012	82.2	70.7	176.4
BL023	BURNS FARM CORPORATION	02	2012	33.9	6/15/2012	6/20/2012	118.1	96.1	395.2
BL024	BURNS FARM CORPORATION	01	2012	17.8	7/12/2012	7/12/2012	84.4	71.9	139.4
BL024	BURNS FARM CORPORATION	02	2012	13	7/13/2012	7/13/2012	117.4	107.2	152.0
BL025	BURNS FARM CORPORATION	01	2012	48.9	1/19/2012	1/24/2012	120.0	109.8	733.1
BL025	BURNS FARM CORPORATION	02	2012	50.6	1/18/2012	1/19/2012	156.1	65.0	448.8
BL026	LOYD, ROBERT C	01	2012	27.5	2/21/2012	2/21/2012	83.0	69.9	236.5
BL026	LOYD, ROBERT C	02	2012	18.7	2/22/2012	2/22/2012	112.9	95.5	219.7
BL026	LOYD, ROBERT C	03	2012	20.4	2/22/2012	2/24/2012	89.3	62.3	156.4

BL026	LOYD, ROBERT C	05	2012	8.4	2/22/2012	2/24/2012	115.4	81.9	84.7
BL028	ELLIS, JEANNE	01	2012	21.3	3/3/2012	3/3/2012	144.1	121.4	356.5
BL028	ELLIS, JEANNE	02	2012	28.9	3/9/2012	3/9/2012	158.6	97.3	344.1
BL028	ELLIS, JEANNE	03	2012	40.3	3/7/2012	3/8/2012	143.0	120.6	597.7
BL028	ELLIS, JEANNE	04	2012	4.7	3/6/2012	3/6/2012	154.5	126.6	73.8
BL028	ELLIS, JEANNE	05	2012	24.2	3/5/2012	3/6/2012	150.2	75.3	226.1
BL028	ELLIS, JEANNE	06	2012	29.8	3/9/2012	3/10/2012	84.6	74.3	271.2
BL028	ELLIS, JEANNE	07	2012	14.1	3/10/2012	3/10/2012	116.5	102.0	176.0
BL033	S. MAPLE DEV. LLC	01	2012	20.8	4/2/2012	4/2/2012	152.4	133.0	376.5
BL033	S. MAPLE DEV. LLC	02	2012	71.6	4/3/2012	4/7/2012	166.1	135.1	1219.5
BL033	S. MAPLE DEV. LLC	05	2012	38.9	4/19/2012	4/19/2012	151.5	98.6	475.9
BL033	S. MAPLE DEV. LLC	06	2012	65	3/20/2012	4/19/2012	186.3	119.9	960.2
BL033	S. MAPLE DEV. LLC	08	2012	36.1	4/5/2012	4/9/2012	210.0	175.0	777.2
BL033	S. MAPLE DEV. LLC	09	2012	90.1	4/10/2012	4/13/2012	210.0	77.8	862.0
BL033	S. MAPLE DEV. LLC	10	2012	84.4	4/14/2012	4/18/2012	161.5	142.4	1506.3
BL034	John Medley	01	2012	13.8	2/11/2012	2/11/2012	117.6	105.5	198.1
BL034	John Medley	02	2012	30.4	2/15/2012	2/18/2012	151.1	119.5	496.1
BL034	John Medley	03	2012	57.9	2/11/2012	2/15/2012	86.7	75.0	590.7
BL034	John Medley	05	2012	18.3	2/15/2012	2/15/2012	120.5	54.3	135.3
BL037	BURNS FARM CORPORATION	01	2012	24.5	6/21/2012	6/22/2012	165.0	140.1	416.2
BL037	BURNS FARM CORPORATION	02	2012	31	7/20/2012	7/23/2012	120.0	109.7	370.4
BL037	BURNS FARM CORPORATION	03	2012	12.9	7/23/2012	7/23/2012	120.0	108.9	152.9
BL039	SWAFFORD, JOHN & LEON	02	2013	15.7	12/6/2012	12/6/2012	120.0	99.9	168.6
BL039	SWAFFORD, JOHN & LEON	03	2013	36.9	12/7/2012	12/8/2012	120.0	103.9	412.0
BL039	SWAFFORD, JOHN & LEON	04	2013	36.4	12/13/2012	12/14/2012	165.0	139.7	545.5
BL039	SWAFFORD, JOHN & LEON	05	2013	17.7	12/14/2012	12/14/2012	120.0	89.4	169.8
BL039	SWAFFORD, JOHN & LEON	07	2013	9.5	12/5/2012	12/5/2012	165.0	144.4	147.6
BL039	SWAFFORD, JOHN & LEON	08	2013	15.7	12/5/2012	12/5/2012	165.0	135.4	228.6
GY008	AHEARN, STEVE	01	2012	12	5/7/2012	5/7/2012	165.0	142.1	211.7
GY008	AHEARN, STEVE	02	2012	7.5	5/8/2012	5/8/2012	120.0	90.3	84.0
GY008	AHEARN, STEVE	03	2012	7.6	5/8/2012	5/8/2012	120.0	101.9	96.1
GY008	AHEARN, STEVE	04	2012	14.6	5/9/2012	5/9/2012	120.0	102.5	185.6
GY008	AHEARN, STEVE	05	2012	8.5	5/11/2012	5/11/2012	165.0	143.5	151.4
GY008	AHEARN, STEVE	06	2012	21.9	5/9/2012	5/10/2012	165.0	139.7	379.5

GY008	AHEARN, STEVE	07	2012	10.1	5/11/2012	5/14/2012	120.0	94.2	118.0
GY008	AHEARN, STEVE	09	2012	2.9	5/14/2012	5/14/2012	120.0	111.4	40.1
GY008	AHEARN, STEVE	10	2012	21.7	5/15/2012	5/16/2012	120.0	97.5	262.5
GY008	AHEARN, STEVE	11	2012	7.7	5/17/2012	5/17/2012	120.0	83.4	79.7
GY011	COX, WILLIAM	01	2012	17.4	5/23/2012	5/24/2012	165.0	139.9	298.1
GY011	COX, WILLIAM	03	2012	17.4	5/26/2012	5/26/2012	120.0	110.3	234.9
GY011	COX, WILLIAM	04	2012	32	5/22/2012	5/26/2012	165.0	140.7	551.4
GY011	COX, WILLIAM	05	2012	55.9	5/18/2012	5/21/2012	120.0	97.3	672.1
GY012	COX, BOBBY	01	2012	32.4	5/26/2012	5/27/2012	165.0	86.7	343.8
GY012	COX, BOBBY	02	2012	14.2	5/25/2012	5/25/2012	120.0	97.9	170.2
HA005	CROOKS, JAMES	02	2013	13.6	9/12/2012	9/12/2012	146.2	108.1	157.8
HA006	CAMPBELL, RAY	02	2013	6.1	9/13/2012	9/13/2012	104.2	67.1	44.0
HA006	CAMPBELL, RAY	03	2013	12.1	9/13/2012	9/13/2012	105.1	64.5	83.8
HA006	CAMPBELL, RAY	04	2013	8.7	9/13/2012	9/13/2012	149.6	118.8	111.0
HA006	CAMPBELL, RAY	05	2013	24	9/13/2012	9/14/2012	152.8	113.5	292.4
HA006	CAMPBELL, RAY	06	2013	27.8	9/14/2012	9/15/2012	150.8	119.1	355.2
HA007	BEST, JAMES	01	2012	12.5	8/28/2012	8/28/2012	112.7	96.9	131.8
HA007	BEST, JAMES	02	2012	14.5	8/27/2012	8/27/2012	111.7	97.1	153.2
HA007	BEST, JAMES	03	2012	22	8/16/2012	8/16/2012	83.3	73.5	175.8
HA007	BEST, JAMES	04	2012	33.4	8/20/2012	8/20/2012	81.1	67.8	246.4
HA012	Anita Tinker	01	2013	31	9/21/2012	9/24/2012	151.2	111.1	369.7
HA013	SPLAN, CHARLES	01	2013	12.7	9/21/2012	9/21/2012	151.1	106.7	145.4
HA016	TN River Gorge Trust	01	2013	38	9/12/2012	10/26/2012	161.1	124.1	622.2
HA016	TN River Gorge Trust	02	2012	17	5/29/2012	6/8/2012	136.6	115.6	265.8
HA016	TN River Gorge Trust	03	2012	15	4/26/2012	5/11/2012	147.9	122.7	251.3
HA016	TN River Gorge Trust	09	2012	20	5/10/2012	5/29/2012	165.0	138.6	378.6
HA016	TN River Gorge Trust	10	2012	16.5	6/8/2012	6/26/2012	165.0	158.9	352.8
HA016	TN River Gorge Trust	11	2013	5	9/11/2012	9/12/2012	165.0	138.9	91.9
HA016	TN River Gorge Trust	12	2012	18	6/26/2012	7/11/2012	152.8	129.4	313.4
HA016	TN River Gorge Trust	13	2012	82	3/26/2012	4/25/2012	81.5	72.0	805.7
HA016	TN River Gorge Trust	14	2012	27	10/7/2011	3/22/2012	114.5	100.7	370.5
HA016	TN River Gorge Trust	15	2012	10	4/13/2012	4/17/2012	89.1	64.5	88.1
HA016	TN River Gorge Trust	16	2012	6	4/13/2012	4/16/2012	88.7	76.6	62.8
HA016	TN River Gorge Trust	19	2012	20	4/9/2012	4/13/2012	90.1	78.4	214.1

HA018	SHELLY, JOHNNY	02	2012	38.9	10/10/2011	7/30/2012	165.0	141.6	613.4
HA018	SHELLY, JOHNNY	03	2012	26.8	8/1/2012	8/7/2012	87.4	71.0	207.1
HA018	SHELLY, JOHNNY	04	2012	5	7/31/2012	7/31/2012	89.7	63.3	34.4
HA019	BACON, RODNEY	01	2012	24.4	8/6/2012	8/8/2012	165.0	152.5	405.0
HA019	BACON, RODNEY	02	2012	16.3	8/8/2012	8/8/2012	165.0	136.9	242.8
HA019	BACON, RODNEY	03	2012	27.7	8/9/2012	8/10/2012	165.0	139.5	420.2
HA019	BACON, RODNEY	04	2012	14.9	8/13/2012	8/14/2012	165.0	137.2	222.4
HA019	BACON, RODNEY	05	2012	14.5	8/14/2012	8/15/2012	165.0	126.7	199.9
HA024	Gene Reese	01	2013	90.8	9/24/2012	9/26/2012	147.9	112.9	1114.9
HA025	REESE, GENE	01	2012	68.5	8/1/2012	9/7/2012	82.0	71.8	535.5
HA026	Jim Frost	01	2012	42.4	8/21/2012	8/23/2012	135.1	110.6	510.3
HA026	Jim Frost	02	2012	26	8/27/2012	8/28/2012	135.5	108.0	305.4
HA026	Jim Frost	03	2012	25.9	8/28/2012	8/29/2012	139.0	83.3	234.6
HA026	Jim Frost	04	2012	36.3	8/28/2012	8/29/2012	119.3	74.7	294.9
HA026	Jim Frost	05	2012	29.4	8/30/2012	8/31/2012	96.9	73.1	233.9
HA026	Jim Frost	06	2012	14.7	8/31/2012	8/31/2012	146.5	106.3	170.0
HA031	JiMENEZ, DAVID	01	2013	22.2	9/10/2012	9/10/2012	165.0	142.0	343.0
HA031	JiMENEZ, DAVID	02	2013	8.5	9/10/2012	9/11/2012	165.0	139.5	129.0
HA031	JiMENEZ, DAVID	03	2013	12.9	9/11/2012	9/11/2012	165.0	147.1	206.5
HA032	SMITH, ADDIE	01	2013	19.8	9/12/2012	9/12/2012	144.4	106.8	230.0
HA034	GRANT, RUSTY	01	2012	99.3	6/20/2012	6/21/2012	120.0	47.4	570.6
HA037	BETTIS, JAMES	01	2012	23	8/28/2012	8/30/2012	120.0	88.3	221.0
HA037	BETTIS, JAMES	02	2012	20.3	8/30/2012	8/30/2012	120.0	20.9	46.1
HA043	LYONS, JOHN	01	2012	30.8	10/23/2012	10/26/2012	390.0	162.5	539.0
HA044	NORMAN, DENNIS	01	2013	13.8	10/12/2012	10/12/2012	165.0	140.6	256.9
HA044	NORMAN, DENNIS	02	2013	8.3	10/16/2012	10/16/2012	165.0	141.3	155.3
HA044	NORMAN, DENNIS	03	2013	10.6	10/16/2012	10/17/2012	165.0	144.1	202.2
HA044	NORMAN, DENNIS	04	2013	5.8	10/18/2012	10/18/2012	165.0	138.9	106.7
HA044	NORMAN, DENNIS	05	2013	10.5	10/18/2012	10/19/2012	165.0	124.6	173.3
MR005	MARTIN, DAVID	01	2012	112.5	4/30/2012	5/9/2012	195.8	164.1	2292.1
MR005	MARTIN, DAVID	02	2012	37.5	4/19/2012	4/19/2012	130.2	104.0	474.6
MR005	MARTIN, DAVID	03	2012	79	5/1/2012	5/9/2012	184.2	132.5	1300.0
MR005	MARTIN, DAVID	04	2012	83.1	4/20/2012	4/24/2012	134.3	113.5	1164.3
MR005	MARTIN, DAVID	05	2012	68.8	4/24/2012	4/26/2012	133.0	110.8	945.6

MR011	FULTS, JOHNNY	12	2012	54.1	12/12/2011	1/30/2012	125.0	117.9	792.5
MS001	MAYSE,BILLY&BATTEN,BRUCE	01	2012	30.2	6/25/2012	6/25/2012	44.4	30.1	110.0
MS001	MAYSE,BILLY&BATTEN,BRUCE	02	2012	18.9	6/25/2012	6/27/2012	120.3	102.7	239.2
MS001	MAYSE,BILLY&BATTEN,BRUCE	03	2012	13	6/27/2012	6/28/2012	130.8	110.9	175.7
MS001	MAYSE,BILLY&BATTEN,BRUCE	04	2012	37.5	6/21/2012	6/25/2012	119.9	100.6	457.6
MS001	MAYSE,BILLY&BATTEN,BRUCE	05	2012	11.7	6/20/2012	6/21/2012	120.6	104.2	147.8
MS001	MAYSE,BILLY&BATTEN,BRUCE	06	2012	3	6/27/2012	6/27/2012	134.3	105.8	39.4
MS006	JoHNSON, R. DALLAS	01	2012	11.5	7/25/2012	7/25/2012	85.6	83.8	105.1
MS006	JoHNSON, R. DALLAS	02	2012	20.3	7/17/2012	7/23/2012	120.0	112.4	248.4
MS006	JoHNSON, R. DALLAS	03	2012	7.7	7/25/2012	7/25/2012	117.7	104.4	87.6
MS006	JoHNSON, R. DALLAS	05	2012	40.2	7/17/2012	7/31/2012	116.0	113.2	496.0
MS006	JoHNSON, R. DALLAS	06	2012	13	7/26/2012	7/26/2012	86.6	74.7	105.8
MS006	JoHNSON, R. DALLAS	07	2012	11.6	7/23/2012	7/24/2012	120.7	112.8	142.5
MS007	BACON, RODNEY	01	2012	53.9	7/12/2012	7/27/2012	120.0	81.4	579.6
MS007	BACON, RODNEY	02	2012	20.7	7/11/2012	7/12/2012	120.0	87.4	225.8
MS007	BACON, RODNEY	03	2012	39.5	7/25/2012	7/27/2012	120.0	93.3	446.8
MS007	BACON, RODNEY	04	2012	17.5	7/25/2012	7/25/2012	120.0	88.5	187.8
MS007	BACON, RODNEY	08	2012	21.7	7/9/2012	7/10/2012	165.0	128.2	337.3
MS007	BACON, RODNEY	09	2012	12.5	7/27/2012	7/27/2012	165.0	125.3	196.1
MS007	BACON, RODNEY	10	2012	3.4	7/30/2012	7/30/2012	165.0	114.1	47.0
RH003	OWENSBY, JUANITA	02	2012	30.7	6/14/2012	6/18/2012	122.8	100.0	380.8
RH003	OWENSBY, JUANITA	03	2012	23.2	6/18/2012	6/19/2012	120.0	106.6	301.2
RH003	OWENSBY, JUANITA	04	2012	12	6/19/2012	6/19/2012	165.0	136.4	198.5
RH003	OWENSBY, JUANITA	05	2012	17.3	6/19/2012	6/20/2012	165.0	137.3	288.0
RH003	OWENSBY, JUANITA	06	2012	16.1	6/13/2012	6/14/2012	132.1	106.3	212.4
RH004	ARCHER, EUGENE	01	2012	28.4	6/5/2012	6/8/2012	105.7	87.0	303.9
RH004	ARCHER, EUGENE	01	2013	28.4	12/3/2012	12/3/2012	161.7	43.2	131.6
RH004	ARCHER, EUGENE	02	2012	40.3	5/24/2012	5/25/2012	94.2	82.6	407.5
RH004	ARCHER, EUGENE	02	2013	40.3	11/26/2012	11/27/2012	158.0	154.8	671.2
RH004	ARCHER, EUGENE	03	2012	62.8	6/1/2012	6/5/2012	95.4	80.8	621.1
RH004	ARCHER, EUGENE	03	2013	62.8	11/27/2012	11/29/2012	159.1	117.5	793.4
RH005	DENTON, GUY	01	2013	15.5	11/9/2012	11/9/2012	120.0	100.5	167.8
RH005	DENTON, GUY	02	2013	11.3	11/9/2012	11/9/2012	165.0	144.1	175.4
RH005	DENTON, GUY	03	2013	11.6	11/9/2012	11/10/2012	165.0	137.8	172.1

RH005	DENTON, GUY	04	2013	15.8	11/10/2012	11/10/2012	90.0	77.8	132.4
RH005	DENTON, GUY	05	2013	16.4	11/10/2012	11/10/2012	165.0	51.7	91.3
RH006	DENTON, GUY	01	2013	7.1	11/14/2012	11/14/2012	210.0	170.1	129.9
RH006	DENTON, GUY	02	2013	12.9	11/16/2012	11/16/2012	165.0	135.0	187.4
RH006	DENTON, GUY	03	2013	15.7	11/16/2012	11/19/2012	210.0	180.2	304.3
RH006	DENTON, GUY	04	2013	16.2	11/19/2012	11/20/2012	210.0	158.7	276.5
RH006	DENTON, GUY	05	2013	15.8	11/20/2012	11/21/2012	165.0	138.2	234.9
RH007	Massengale, Don	01	2013	7.6	10/29/2012	10/29/2012	165.0	155.2	126.6
RH007	Massengale, Don	02	2013	5.9	10/29/2012	10/29/2012	120.0	101.2	64.1
RH007	Massengale, Don	03	2013	13.1	10/29/2012	10/29/2012	120.0	109.2	153.5
RH007	Massengale, Don	04	2013	12.8	10/29/2012	10/30/2012	165.0	161.9	222.4
RH007	Massengale, Don	05	2013	13.7	10/30/2012	10/30/2012	240.0	228.5	335.9
RH007	Massengale, Don	06	2013	16.1	10/30/2012	10/31/2012	240.0	198.4	343.2
RH007	Massengale, Don	08	2013	7.2	10/30/2012	10/31/2012	240.0	225.5	174.3
RH007	Massengale, Don	09	2013	10.4	10/31/2012	10/31/2012	240.0	234.4	261.7
RH007	Massengale, Don	10	2013	4	10/31/2012	10/31/2012	165.0	145.6	62.7
RH007	Massengale, Don	11	2013	15.6	10/31/2012	10/31/2012	300.0	179.0	300.8
RH009	HENDERSON, DORRIS	01	2013	14.2	11/22/2012	11/22/2012	210.0	181.6	277.4
RH009	HENDERSON, DORRIS	02	2013	11.5	11/22/2012	11/23/2012	165.0	139.0	171.9
RH011	HOUSLEY, DONALD	01	2013	18.6	11/17/2012	11/18/2012	165.0	70.4	153.0
RH011	HOUSLEY, DONALD	02	2013	14.8	11/17/2012	11/18/2012	165.0	90.3	147.6
RH011	HOUSLEY, DONALD	03	2013	18.4	11/18/2012	11/18/2012	165.0	131.5	317.9
RH011	HOUSLEY, DONALD	04	2013	20.8	11/18/2012	11/18/2012	165.0	132.5	362.2
RH013	BOWERS, DEWAYNE	01	2013	34.8	11/2/2012	11/6/2012	210.0	170.9	640.6
RH013	BOWERS, DEWAYNE	02	2013	20.3	11/6/2012	11/8/2012	210.0	178.3	389.9
RH013	BOWERS, DEWAYNE	03	2013	28.7	11/1/2012	11/2/2012	210.0	175.4	542.2
RH014	BrOOKS, HOWARD	01	2013	3.4	11/14/2012	11/14/2012	165.0	113.7	41.6
RH014	BrOOKS, HOWARD	02	2013	23.9	11/14/2012	11/14/2013	165.0	138.5	356.5
RH014	BrOOKS, HOWARD	03	2013	1.5	11/14/2012	11/14/2012	300.0	133.3	21.5
RH014	BrOOKS, HOWARD	04	2013	27.2	11/14/2012	11/15/2012	210.0	179.1	524.7
RH014	BrOOKS, HOWARD	05	2013	2.8	11/14/2012	11/14/2012	300.0	132.3	39.9
RH014	BrOOKS, HOWARD	06	2013	12.4	11/15/2012	11/16/2012	210.0	161.2	215.2
RH014	BrOOKS, HOWARD	07	2013	8.6	10/11/2012	10/11/2012	165.0	141.3	130.9
RH014	BrOOKS, HOWARD	08	2013	34.8	10/9/2012	10/10/2012	210.0	179.0	668.7

RH014	BrOOKS, HOWARD	09	2013	23.1	10/8/2012	10/9/2012	210.0	177.6	440.4
RH014	BrOOKS, HOWARD	10	2013	33.6	11/16/2012	11/16/2012	210.0	104.3	377.6
RH014	BrOOKS, HOWARD	11	2013	21	11/17/2012	11/17/2012	210.0	94.5	213.8
SE011	Land, Thomas	03	2012	14.1	6/1/2012	6/2/2012	180.0	156.2	269.7
SE011	Land, Thomas	04	2012	9	6/2/2012	6/2/2012	165.0	148.8	164.0
SE011	Land, Thomas	05	2012	28.6	6/4/2012	6/6/2012	180.0	140.5	492.0
SE012	Studer, James	01	2012	33.1	5/4/2012	5/4/2012	129.2	105.7	482.5
SE012	Studer, James	02	2012	45.1	5/1/2012	5/3/2012	130.1	106.9	661.8
SE012	Studer, James	03	2012	119.2	2/6/2012	6/29/2012	84.3	70.3	1155.1
SE012	Studer, James	04	2012	112.5	7/2/2012	7/9/2012	85.7	72.5	1123.9
SE012	Studer, James	05	2012	12.8	5/1/2012	5/1/2012	84.6	55.3	87.9
SE012	Studer, James	06	2012	6.5	5/1/2012	5/1/2012	85.9	50.7	41.0
SE013	Mary Grace Kelly	01	2012	39.5	5/5/2012	5/5/2012	74.7	60.5	296.8
SE013	Mary Grace Kelly	02	2012	42.5	5/7/2012	5/7/2012	74.5	62.1	328.1
SE013	Mary Grace Kelly	03	2012	17.1	5/8/2012	5/8/2012	87.6	67.8	143.8
SE013	Mary Grace Kelly	04	2012	30.1	6/8/2012	6/8/2012	92.0	74.9	279.7
SE018	SEALS, IRENE	01	2012	11.7	5/24/2012	5/24/2012	165.0	147.5	211.4
SE018	SEALS, IRENE	02	2012	12.6	5/24/2012	5/25/2012	180.0	110.0	169.7

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	162.6	**Calendar Year:**	2012
Applied Acres:	151.7	**Farm Code:**	BL020
WT Applied:	1,089.1	**Farm Name:**	CAGLE, BILLY E
DT Applied:	395.5	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.5424 W 85.2348

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	23	Wheat		02/08/12	02/08/12	30.9	488.3	10.4	S	1.7	1.4	3.84	32.1	88.4
03	14.3	Wheat		02/08/12	02/08/12	48.4	763.7	16.2	S	2.3	2.2	6.01	31.2	85.9
04	22.7	Tall Fescue Pasture		02/09/12	02/10/12	77.2	1,217.9	25.9	S	4.0	3.5	9.58	79.0	217.6
05	44.8	Tall Fescue Pasture		02/10/12	02/10/12	51.2	807.4	17.2	S	3.8	2.3	6.35	103.4	284.6
06	40.3	Tall Fescue Pasture		02/11/12	02/11/12	73.7	1,163.4	24.8	S	4.0	3.3	9.15	134.0	368.9
07	6.6	Wheat		02/08/12	02/08/12	53.3	841.0	17.9	S	2.9	2.4	6.62	15.9	43.7

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	202.7	**Calendar Year:**	2012
Applied Acres:	149.2	**Farm Code:**	BL021
WT Applied:	1,443.0	**Farm Name:**	HAMILTOM, BETTY
DT Applied:	487.9	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.5951 W 85.1601

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	35.4	Corn Grain 176 - 200 bu		03/07/12	03/08/12	103.9	1,608.4	35.6	S	7.3	4.7	12.82	166.7	453.7
03	48	Tall Fescue Pasture		03/08/12	03/08/12	36.1	534.5	12.6	S	3.5	1.4	4.32	66.0	207.1
04	31.9	Tall Fescue Hay		03/09/12	03/10/12	127.2	1,887.7	44.8	S	6.4	5.0	15.41	157.9	491.5
05	33.9	Tall Fescue Pasture		03/10/12	03/12/12	66.3	996.4	24.8	S	5.2	2.9	8.58	97.3	290.7

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Calendar Year:	2012
Farm Code:	BL022
Farm Name:	BURNS FARM CORPORATION
State:	TN
County:	Bledsoe
Lat/Long:	N 35.5891 W 85.224

Approved Acres:	251.2
Applied Acres:	237.4
WT Applied:	2,450.3
DT Applied:	901.0

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	27.3	Tall Fescue Pasture		04/24/12	04/25/12	69.5	1,085.5	23.5	S	3.9	3.1	8.55	85.1	233.4
02	22.9	Tall Fescue Pasture		02/27/12	02/27/12	82.4	1,268.3	32.8	S	4.0	3.9	11.35	88.3	260.0
03	13.1	Tall Fescue Pasture		04/25/12	04/25/12	68.1	1,063.6	23.0	S	3.9	3.1	8.38	40.0	109.8
05	6.9	Tall Fescue Pasture		02/28/12	02/28/12	69.2	1,066.2	27.6	S	4.0	3.2	9.54	22.4	65.9
06	20.9	Tall Fescue Hay		03/16/12	03/16/12	102.8	1,605.6	34.8	S	5.3	4.6	12.65	96.4	264.3
07	28.4	Tall Fescue Hay		04/24/12	04/24/12	99.1	1,548.4	33.5	S	5.3	4.4	12.20	126.4	346.4
08	16.6	Tall Fescue Pasture		02/27/12	02/28/12	80.2	1,235.8	32.0	S	3.8	3.8	11.06	62.3	183.6
09	24.2	Tall Fescue Hay		04/23/12	04/23/12	101.2	1,580.4	34.2	S	5.3	4.5	12.45	109.9	301.3
10	31.4	Tall Fescue Pasture		07/09/12	07/10/12	70.6	1,057.2	20.3	S	3.6	3.1	7.76	98.0	243.8
11	12.5	Tall Fescue Pasture		07/10/12	07/10/12	57.2	855.3	18.7	S	4.0	2.6	6.94	32.6	86.7
12	33.2	Tall Fescue Hay		07/10/12	07/11/12	94.3	1,411.1	28.3	S	5.0	4.2	10.70	139.7	355.1

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	56.8	**Calendar Year:**	2012
Applied Acres:	56.8	**Farm Code:**	BL023
WT Applied:	571.6	**Farm Name:**	BURNS FARM CORPORATION
DT Applied:	219.8	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.5701 W 85.2334

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	22.9	Tall Fescue Pasture		07/19/12	07/19/12	70.7	1,043.2	20.2	S	3.6	3.1	7.70	71.4	176.4
02	33.9	Tall Fescue Hay		06/15/12	06/20/12	96.1	1,437.2	31.5	S	5.4	4.4	11.66	148.5	395.2

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	45.7	**Calendar Year:**	2012
Applied Acres:	30.8	**Farm Code:**	BL024
WT Applied:	291.4	**Farm Name:**	BURNS FARM CORPORATION
DT Applied:	117.8	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.5441 W 85.2548

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	17.8	Tall Fescue Pasture		07/12/12	07/12/12	71.9	1,075.6	20.4	S	3.7	3.2	7.83	56.4	139.4
02	13	Tall Fescue Hay		07/13/12	07/13/12	107.2	1,605.5	30.5	S	5.2	4.7	11.69	61.4	152.0

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Calendar Year:	2012
Farm Code:	BL025
Farm Name:	BURNS FARM CORPORATION
State:	TN
County:	Bledsoe
Lat/Long:	N 35.59194 W 85.25508

Approved Acres:	99.5
Applied Acres:	99.5
WT Applied:	1,181.9
DT Applied:	404.7

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	48.9	Tall Fescue Pasture		01/19/12	01/24/12	109.8	1,755.0	40.6	S	5.6	5.1	14.99	251.1	733.1
02	50.6	Tall Fescue Hay		01/18/12	01/19/12	65.0	1,038.2	24.0	S	7.3	3.0	8.87	153.7	448.8

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	81.1	**Calendar Year:**	2012
Applied Acres:	75	**Farm Code:**	BL026
WT Applied:	697.2	**Farm Name:**	LOYD, ROBERT C
DT Applied:	254.3	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.5741 W 85.1929

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	27.5	Tall Fescue Pasture		02/21/12	02/21/12	69.9	1,091.7	23.6	S	3.7	3.1	8.60	86.3	236.5
02	18.7	Tall Fescue Hay		02/22/12	02/22/12	95.5	1,491.2	32.3	S	5.1	4.3	11.75	80.1	219.7
03	20.4	Tall Fescue Pasture		02/22/12	02/24/12	62.3	973.4	21.1	S	4.0	2.8	7.67	57.1	156.4
05	8.4	Tall Fescue Hay		02/22/12	02/24/12	81.9	1,279.6	27.7	S	5.2	3.7	10.08	30.9	84.7

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	177.5	**Calendar Year:**	2012
Applied Acres:	163.3	**Farm Code:**	BL028
WT Applied:	2,045.3	**Farm Name:**	ELLIS, JEANNE
DT Applied:	744.6	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.66064 W 85.13697

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	21.3	Corn Grain 176 - 200 bu		03/03/12	03/03/12	121.4	1,869.5	48.3	S	6.7	5.7	16.74	121.0	356.5
02	28.9	Corn Grain 176 - 200 bu		03/09/12	03/09/12	97.3	1,492.6	33.3	S	7.2	4.4	11.91	127.9	344.1
03	40.3	Corn Grain 176 - 200 bu		03/07/12	03/08/12	120.6	1,854.1	41.5	S	6.5	5.4	14.83	219.6	597.7
04	4.7	Corn Grain 176 - 200 bu		03/06/12	03/06/12	126.6	1,959.4	43.9	S	7.0	5.8	15.71	27.1	73.8
05	24.2	Corn Grain 176 - 200 bu		03/05/12	03/06/12	75.3	1,165.1	26.1	S	6.8	3.4	9.34	82.9	226.1
06	29.8	Tall Fescue Pasture		03/09/12	03/10/12	74.3	1,140.7	25.4	S	3.8	3.4	9.10	100.8	271.2
07	14.1	Tall Fescue Hay		03/10/12	03/10/12	102.0	1,564.5	34.9	S	5.3	4.6	12.48	65.4	176.0

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Calendar Year:	2012
Farm Code:	BL033
Farm Name:	S. MAPLE DEV. LLC
State:	TN
County:	Bledsoe
Lat/Long:	N 35.5705 W 85.2026

Approved Acres:	579.7
Applied Acres:	406.9
WT Applied:	6,177.7
DT Applied:	2,238.6

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	20.8	Corn Grain 176 - 200 bu		04/02/12	04/02/12	133.0	2,020.9	52.1	S	7.1	6.2	18.10	129.7	376.5
02	71.6	Corn Grain 176 - 200 bu		04/03/12	04/07/12	135.1	2,085.6	47.6	S	7.6	6.2	17.03	440.4	1219.5
05	38.9	Corn Grain 176 - 200 bu		04/19/12	04/19/12	98.6	1,525.7	34.2	S	6.9	4.5	12.23	174.4	475.9
06	65	Corn Grain 176 - 200 bu		03/20/12	04/19/12	119.9	1,869.3	40.7	S	8.4	5.4	14.77	350.6	960.2
08	36.1	Corn Grain 176 - 200 bu		04/05/12	04/09/12	175.0	2,733.2	59.2	S	9.4	7.9	21.53	283.5	777.2
09	90.1	Corn Grain 176 - 200 bu		04/10/12	04/13/12	77.8	1,214.6	26.3	S	9.4	3.5	9.57	314.5	862.0
10	84.4	Corn Grain 176 - 200 bu		04/14/12	04/18/12	142.4	2,211.0	49.8	S	7.3	6.5	17.85	545.5	1506.3

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	136.6	**Calendar Year:**	2012
Applied Acres:	120.4	**Farm Code:**	BL034
WT Applied:	1,420.2	**Farm Name:**	John Medley
DT Applied:	480.1	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.53315 W 85.2263

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	13.8	Tall Fescue Hay		02/11/12	02/11/12	105.5	1,641.9	40.8	S	5.4	4.9	14.36	66.9	198.1
02	30.4	Corn Grain 176 - 200 bu		02/15/12	02/18/12	119.5	1,853.0	46.6	S	7.0	5.5	16.32	167.9	496.1
03	57.9	Tall Fescue Pasture		02/11/12	02/15/12	75.0	1,166.8	29.0	S	4.0	3.4	10.20	199.6	590.7
05	18.3	Tall Fescue Hay		02/15/12	02/15/12	54.3	845.3	21.0	S	5.5	2.5	7.39	45.7	135.3

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Calendar Year:	2012
Farm Code:	BL037
Farm Name:	BURNS FARM CORPORATION
State:	TN
County:	Bledsoe
Lat/Long:	N 35.5769 W 85.2315

Approved Acres:	68.4
Applied Acres:	68.4
WT Applied:	939.5
DT Applied:	368.1

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	24.5	Tall Fescue Hay		06/21/12	06/22/12	140.1	2,094.1	45.8	S	7.5	6.4	16.99	156.4	416.2
02	31	Tall Fescue Pasture		07/20/12	07/23/12	109.7	1,618.2	31.3	S	5.3	4.8	11.95	149.9	370.4
03	12.9	Tall Fescue Pasture		07/23/12	07/23/12	108.9	1,605.6	31.1	S	5.3	4.8	11.86	61.9	152.9

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	192.8	**Calendar Year:**	2012
Applied Acres:	131.9	**Farm Code:**	BL039
WT Applied:	1,672.0	**Farm Name:**	SWAFFORD, JOHN & LEON
DT Applied:	709.9	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.6282 W 85.1373

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
02	15.7	Tall Fescue Pasture		12/06/12	12/06/12	99.9	1,488.5	28.1	S	5.5	4.5	10.74	71.4	168.6
03	36.9	Tall Fescue Pasture		12/07/12	12/08/12	103.9	1,553.4	29.1	S	5.5	4.7	11.16	174.8	412.0
04	36.4	Tall Fescue Hay		12/13/12	12/14/12	139.7	2,094.3	38.9	S	7.5	6.4	14.99	232.1	545.5
05	17.7	Tall Fescue Pasture		12/14/12	12/14/12	89.4	1,340.2	24.9	S	5.5	4.1	9.59	72.2	169.8
07	9.5	Tall Fescue Hay		12/05/12	12/05/12	144.4	2,152.9	40.6	S	7.5	6.6	15.54	62.5	147.6
08	15.7	Tall Fescue Hay		12/05/12	12/05/12	135.4	2,017.7	38.1	S	7.5	6.2	14.56	96.8	228.6

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	120.7	**Calendar Year:**	2012
Applied Acres:	114.5	**Farm Code:**	GY008
WT Applied:	1,608.6	**Farm Name:**	AHEARN, STEVE
DT Applied:	589.5	**State:**	TN
		County:	Grundy
		Lat/Long:	N 35.3843 W 85.685

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	12	Tall Fescue Hay		05/07/12	05/07/12	142.1	2,203.4	49.1	S	7.5	6.5	17.64	77.5	211.7
02	7.5	Tall Fescue Pasture		05/08/12	05/08/12	90.3	1,396.7	31.3	S	5.5	4.1	11.20	30.8	84.0
03	7.6	Tall Fescue Pasture		05/08/12	05/08/12	101.9	1,577.1	35.3	S	5.5	4.6	12.65	35.2	96.1
04	14.6	Tall Fescue Pasture		05/09/12	05/09/12	102.5	1,585.2	35.5	S	5.5	4.7	12.71	68.0	185.6
05	8.5	Tall Fescue Hay		05/11/12	05/11/12	143.5	2,220.9	49.8	S	7.5	6.5	17.81	55.5	151.4
06	21.9	Tall Fescue Hay		05/09/12	05/10/12	139.7	2,161.0	48.4	S	7.5	6.4	17.33	139.1	379.5
07	10.1	Tall Fescue Pasture		05/11/12	05/14/12	94.2	1,457.3	32.7	S	5.5	4.3	11.69	43.3	118.0
09	2.9	Tall Fescue Pasture		05/14/12	05/14/12	111.4	1,724.3	38.6	S	5.5	5.1	13.83	14.7	40.1
10	21.7	Tall Fescue Pasture		05/15/12	05/16/12	97.5	1,508.6	33.8	S	5.5	4.4	12.10	96.2	262.5
11	7.7	Tall Fescue Pasture		05/17/12	05/17/12	83.4	1,290.6	28.9	S	5.5	3.8	10.35	29.2	79.7

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	172.8	**Calendar Year:**	2012
Applied Acres:	122.7	**Farm Code:**	GY011
WT Applied:	1,756.5	**Farm Name:**	COX, WILLIAM
DT Applied:	656.2	**State:**	TN
		County:	Grundy
		Lat/Long:	N 35.4163 W 85.7244

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	17.4	Tall Fescue Hay		05/23/12	05/24/12	139.9	2,084.1	47.1	S	7.6	6.4	17.13	112.2	298.1
03	17.4	Tall Fescue Pasture		05/26/12	05/26/12	110.3	1,642.5	37.1	S	5.5	5.1	13.50	88.4	234.9
04	32	Tall Fescue Hay		05/22/12	05/26/12	140.7	2,096.0	47.4	S	7.6	6.5	17.23	207.4	551.4
05	55.9	Tall Fescue Pasture		05/18/12	05/21/12	97.3	1,488.7	33.4	S	5.5	4.4	12.02	248.3	672.1

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	46.6	**Calendar Year:**	2012
Applied Acres:	46.6	**Farm Code:**	GY012
WT Applied:	514.0	**Farm Name:**	COX, BOBBY
DT Applied:	193.4	**State:**	TN
		County:	Grundy
		Lat/Long:	N 35.4211 W 85.726

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	32.4	Tall Fescue Hay		05/26/12	05/27/12	86.7	1,290.9	29.2	S	7.6	4.0	10.61	129.4	343.8
02	14.2	Tall Fescue Pasture		05/25/12	05/25/12	97.9	1,457.8	33.0	S	5.5	4.5	11.98	64.0	170.2

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	42.9	**Calendar Year:**	2012
Applied Acres:	13.6	**Farm Code:**	HA005
WT Applied:	157.8	**Farm Name:**	CROOKS, JAMES
DT Applied:	65.8	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.2238 W 85.0159

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
02	13.6	Tall Fescue Hay		09/12/12	09/12/12	108.1	1,572.8	31.0	S	6.5	4.8	11.60	65.8	157.8

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	80.5	**Calendar Year:**	2012
Applied Acres:	78.7	**Farm Code:**	HA006
WT Applied:	886.3	**Farm Name:**	CAMPBELL, RAY
DT Applied:	369.6	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.2304 W 85.0139

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
02	6.1	Tall Fescue Pasture		09/13/12	09/13/12	67.1	977.0	19.3	S	4.7	3.0	7.21	18.3	44.0
03	12.1	Tall Fescue Pasture		09/13/12	09/13/12	64.5	938.6	18.5	S	4.7	2.9	6.92	34.9	83.8
04	8.7	Tall Fescue Hay		09/13/12	09/13/12	118.8	1,729.3	34.1	S	6.7	5.3	12.76	46.3	111.0
05	24	Tall Fescue Hay		09/13/12	09/14/12	113.5	1,651.6	32.6	S	6.8	5.1	12.18	121.9	292.4
06	27.8	Tall Fescue Hay		09/14/12	09/15/12	119.1	1,732.2	34.2	S	6.7	5.3	12.78	148.1	355.2

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	82.4	**Calendar Year:**	2012
Applied Acres:	82.4	**Farm Code:**	HA007
WT Applied:	707.1	**Farm Name:**	BEST, JAMES
DT Applied:	289.3	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.2664 W 85.9906

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	12.5	Tall Fescue Hay		08/28/12	08/28/12	96.9	1,411.3	27.8	S	5.0	4.3	10.54	53.9	131.8
02	14.5	Tall Fescue Hay		08/27/12	08/27/12	97.1	1,413.9	27.9	S	5.0	4.3	10.56	62.7	153.2
03	22	Tall Fescue Pasture		08/16/12	08/16/12	73.5	1,069.7	21.1	S	3.7	3.3	7.99	71.9	175.8
04	33.4	Tall Fescue Pasture		08/20/12	08/20/12	67.8	987.2	19.5	S	3.6	3.0	7.38	100.8	246.4

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	31	**Calendar Year:**	2012
Applied Acres:	31	**Farm Code:**	HA012
WT Applied:	369.7	**Farm Name:**	Anita Tinker
DT Applied:	154.1	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.26407 W 85.04669

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	31	Tall Fescue Hay		09/21/12	09/24/12	111.1	1,616.7	31.9	S	6.8	5.0	11.92	154.1	369.7

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	12.7	**Calendar Year:**	2012
Applied Acres:	12.7	**Farm Code:**	HA013
WT Applied:	145.4	**Farm Name:**	SPLAN, CHARLES
DT Applied:	60.6	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.2711 W 85.0483

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	12.7	Tall Fescue Hay		09/21/12	09/21/12	106.7	1,552.0	30.6	S	6.8	4.8	11.45	60.6	145.4

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Calendar Year:	2012		
Farm Code:	HA016		
Farm Name:	TN River Gorge Trust	**Approved Acres:**	274.5
State:	TN	**Applied Acres:**	274.5
County:	Hamilton	**WT Applied:**	3,817.1 (3737.7 in CalYr 2012)
Lat/Long:	N 35.08 W 85.35	**DT Applied:**	1,338.0 (1311.1 in CalYr 2012)

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
02	17	Tall Fescue Hay		05/29/12	06/08/12	115.6	1,689.0	43.3	S	6.4	5.4	15.63	92.4	265.8
03	15	Tall Fescue Hay		04/26/12	05/11/12	122.7	1,803.5	47.3	S	7.0	5.8	16.75	87.6	251.3
09	20	Tall Fescue Hay		05/10/12	05/29/12	138.6	2,037.9	53.5	S	7.9	6.6	18.93	132.0	378.6
10	16.5	Tall Fescue Hay		06/08/12	06/26/12	158.9	2,314.1	58.6	S	7.7	7.4	21.38	122.5	352.8
12	18	Tall Fescue Hay		06/26/12	07/11/12	129.4	1,884.1	47.7	S	7.1	6.0	17.41	108.8	313.4
13	82	Tall Fescue Pasture		03/26/12	04/25/12	72.0	1,072.7	28.0	S	3.9	3.4	9.83	279.6	805.7
14	27	Tall Fescue Pasture		10/07/11	03/22/12	100.7	1,543.7	39.4	S	5.4	4.7	13.72	127.1	370.5
15	10	Tall Fescue Pasture		04/13/12	04/17/12	64.5	948.2	24.9	S	4.2	3.1	8.81	30.7	88.1
16	6	Tall Fescue Pasture		04/13/12	04/16/12	76.6	1,125.9	29.6	S	4.2	3.6	10.46	21.9	62.8
19	20	Tall Fescue Pasture		04/09/12	04/13/12	78.4	1,152.4	30.2	S	4.3	3.7	10.70	74.6	214.1

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	38	Tall Fescue Hay		09/12/12	10/26/12	124.1	1,708.3	45.1	S	7.8	6.0	16.37	227.3	622.2
11	5	Tall Fescue Hay		09/11/12	09/12/12	138.9	1,896.2	50.8	S	7.9	6.7	18.39	33.4	91.9

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Calendar Year:	2012		
Farm Code:	HA018		
Farm Name:	SHELLY, JOHNNY	**Approved Acres:**	89.9
State:	TN	**Applied Acres:**	70.7
County:	Hamilton	**WT Applied:**	854.9 (789.8 in CalYr 2012)
Lat/Long:	N 35.2766 W 84.9671	**DT Applied:**	342.4 (320.4 in CalYr 2012)

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
02	38.9	Tall Fescue Hay		10/10/11	07/30/12	141.6	2,111.3	41.6	S	7.3	6.3	15.77	243.8	613.4
03	26.8	Tall Fescue Pasture		08/01/12	08/07/12	71.0	1,034.2	20.4	S	3.9	3.2	7.73	84.7	207.1
04	5	Tall Fescue Pasture		07/31/12	07/31/12	63.3	933.1	18.1	S	4.0	2.8	6.89	13.9	34.4

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	97.8	**Calendar Year:**	2012
Applied Acres:	97.8	**Farm Code:**	HA019
WT Applied:	1,490.3	**Farm Name:**	BACON, RODNEY
DT Applied:	608.0	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.2741 W 84.9749

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	24.4	Tall Fescue Hay		08/06/12	08/08/12	152.5	2,246.6	43.6	S	7.3	6.7	16.60	164.0	405.0
02	16.3	Tall Fescue Hay		08/08/12	08/08/12	136.9	1,993.4	39.3	S	7.3	6.1	14.89	99.3	242.8
03	27.7	Tall Fescue Hay		08/09/12	08/10/12	139.5	2,030.6	40.0	S	7.3	6.2	15.17	171.9	420.2
04	14.9	Tall Fescue Hay		08/13/12	08/14/12	137.2	1,997.4	39.4	S	7.3	6.1	14.92	91.0	222.4
05	14.5	Tall Fescue Hay		08/14/12	08/15/12	126.7	1,845.4	36.4	S	7.3	5.6	13.79	81.8	199.9

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	90.8	**Calendar Year:**	2012
Applied Acres:	90.8	**Farm Code:**	HA024
WT Applied:	1,114.9	**Farm Name:**	Gene Reese
DT Applied:	456.1	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.24391 W 85.01985

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	90.8	Tall Fescue Hay		09/24/12	09/26/12	112.9	1,643.4	32.4	S	6.6	5.0	12.28	456.1	1114.9

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	111.4	**Calendar Year:**	2012
Applied Acres:	68.5	**Farm Code:**	HA025
WT Applied:	535.5	**Farm Name:**	REESE, GENE
DT Applied:	216.7	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.28348 W 84.96022

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	68.5	Tall Fescue Pasture		08/01/12	09/07/12	71.8	1,058.8	20.5	S	3.6	3.2	7.82	216.7	535.5

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	174.7	**Calendar Year:**	2012
Applied Acres:	174.7	**Farm Code:**	HA026
WT Applied:	1,749.0	**Farm Name:**	Jim Frost
DT Applied:	715.6	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.28817 W 85.0201

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	42.4	Tall Fescue Hay		08/21/12	08/23/12	110.6	1,611.0	31.8	S	6.0	4.9	12.04	208.8	510.3
02	26	Tall Fescue Hay		08/27/12	08/28/12	108.0	1,572.2	31.0	S	6.0	4.8	11.75	124.9	305.4
03	25.9	Tall Fescue Hay		08/28/12	08/29/12	83.3	1,212.4	23.9	S	6.2	3.7	9.06	96.0	234.6
04	36.3	Tall Fescue Pasture		08/28/12	08/29/12	74.7	1,087.3	21.4	S	5.3	3.3	8.12	120.6	294.9
05	29.4	Tall Fescue Pasture		08/30/12	08/31/12	73.1	1,064.8	21.0	S	4.3	3.3	7.96	95.7	233.9
06	14.7	Tall Fescue Hay		08/31/12	08/31/12	106.3	1,547.6	30.5	S	6.5	4.7	11.56	69.5	170.0

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	43.6	**Calendar Year:**	2012
Applied Acres:	43.6	**Farm Code:**	HA031
WT Applied:	678.4	**Farm Name:**	JiMENEZ, DAVID
DT Applied:	277.5	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.21836 W 85.01938

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	22.2	Tall Fescue Hay		09/10/12	09/10/12	142.0	2,067.8	40.8	S	7.3	6.3	15.45	140.3	343.0
02	8.5	Tall Fescue Hay		09/10/12	09/11/12	139.5	2,030.9	40.1	S	7.3	6.2	15.17	52.8	129.0
03	12.9	Tall Fescue Hay		09/11/12	09/11/12	147.1	2,142.1	42.2	S	7.3	6.5	16.00	84.5	206.5

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	56.6	**Calendar Year:**	2012
Applied Acres:	19.8	**Farm Code:**	HA032
WT Applied:	230.0	**Farm Name:**	SMITH, ADDIE
DT Applied:	94.1	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.2275 W 85.0126

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	19.8	Tall Fescue Hay		09/12/12	09/12/12	106.8	1,554.9	30.7	S	6.4	4.8	11.62	94.1	230.0

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	99.3	**Calendar Year:**	2012
Applied Acres:	99.3	**Farm Code:**	HA034
WT Applied:	570.6	**Farm Name:**	GRANT, RUSTY
DT Applied:	214.4	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.3951 W 85.0633

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	99.3	Tall Fescue Pasture		06/20/12	06/21/12	47.4	708.5	15.5	S	5.5	2.2	5.75	214.4	570.6

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	43.3	**Calendar Year:**	2012
Applied Acres:	43.3	**Farm Code:**	HA037
WT Applied:	267.0	**Farm Name:**	BETTIS, JAMES
DT Applied:	109.2	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.2906 W 84.9798

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	23	Tall Fescue Pasture		08/28/12	08/30/12	88.3	1,285.9	25.4	S	5.3	3.9	9.61	90.4	221.0
02	20.3	Tall Fescue Pasture		08/30/12	08/30/12	20.9	303.8	6.0	S	5.3	0.9	2.27	18.8	46.1

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	69.7	**Calendar Year:**	2012
Applied Acres:	30.8	**Farm Code:**	HA043
WT Applied:	539.0	**Farm Name:**	LYONS, JOHN
DT Applied:	226.0	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.1979 W 85.0762

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	30.8	Wheat	Bermudagrass, Common – Hay	10/23/12	10/26/12	162.5	2,364.0	45.8	S	17.6	7.3	17.50	226.0	539.0

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	49	**Calendar Year:**	2012
Applied Acres:	49	**Farm Code:**	HA044
WT Applied:	894.3	**Farm Name:**	NORMAN, DENNIS
DT Applied:	325.2	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.3216 W 85.0183

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	13.8	Tall Fescue Hay		10/12/12	10/12/12	140.6	1,919.8	51.4	S	7.9	6.8	18.61	93.4	256.9
02	8.3	Tall Fescue Hay		10/16/12	10/16/12	141.3	1,930.1	51.7	S	7.9	6.8	18.71	56.5	155.3
03	10.6	Tall Fescue Hay		10/16/12	10/17/12	144.1	1,967.4	52.7	S	7.9	6.9	19.08	73.5	202.2
04	5.8	Tall Fescue Hay		10/18/12	10/18/12	138.9	1,896.7	50.8	S	7.9	6.7	18.39	38.8	106.7
05	10.5	Tall Fescue Hay		10/18/12	10/19/12	124.6	1,701.8	45.6	S	7.9	6.0	16.50	63.0	173.3

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	380.9	**Calendar Year:**	2012
Applied Acres:	380.9	**Farm Code:**	MR005
WT Applied:	6,176.7	**Farm Name:**	MARTIN, DAVID
DT Applied:	2,249.8	**State:**	TN
		County:	Marion
		Lat/Long:	N 35.04 W 85.63861

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	112.5	Corn Grain 176 - 200 bu		04/30/12	05/09/12	164.1	2,565.7	56.0	S	8.9	7.4	20.37	836.1	2292.1
02	37.5	Soybeans		04/19/12	04/19/12	104.0	1,638.6	34.0	S	5.8	4.7	12.66	174.9	474.6
03	79	Corn Grain 176 - 200 bu		05/01/12	05/09/12	132.5	2,086.0	44.7	S	8.3	6.0	16.46	472.7	1300.0
04	83.1	Soybeans		04/20/12	04/24/12	113.5	1,776.6	37.9	S	6.0	5.1	14.01	422.7	1164.3
05	68.8	Soybeans		04/24/12	04/26/12	110.8	1,745.6	37.2	S	6.0	5.0	13.74	343.4	945.6

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	725	**Calendar Year:**	2012
Applied Acres:	54.1	**Farm Code:**	MR011
WT Applied:	792.5 (263.7 in CalYr 2012)	**Farm Name:**	FULTS, JOHNNY
DT Applied:	287.8 (95.8 in CalYr 2012)	**State:**	TN
		County:	Marion
		Lat/Long:	N 35.19174 W 85.6414

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
12	54.1	Tall Fescue Hay		12/12/11	01/30/12	117.9	1,861.5	39.6	S	5.6	5.3	14.65	287.8	792.5

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Calendar Year:	2012
Farm Code:	MS001
Farm Name:	MAYSE,BILLY&BATTEN,BRUCE
State:	TN
County:	Meigs
Lat/Long:	N 35.3805 W 84.9684

Approved Acres:	114.3
Applied Acres:	114.3
WT Applied:	1,169.6
DT Applied:	437.1

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	30.2	Wheat		06/25/12	06/25/12	30.1	449.2	9.8	S	2.0	1.4	3.64	41.3	110.0
02	18.9	Tall Fescue Hay		06/25/12	06/27/12	102.7	1,572.9	35.0	S	5.5	4.7	12.66	88.3	239.2
03	13	Tall Fescue Hay		06/27/12	06/28/12	110.9	1,670.3	36.8	S	6.0	5.0	13.51	65.6	175.7
04	37.5	Tall Fescue Hay		06/21/12	06/25/12	100.6	1,504.2	32.9	S	5.5	4.6	12.20	171.9	457.6
05	11.7	Tall Fescue Hay		06/20/12	06/21/12	104.2	1,557.2	34.1	S	5.5	4.7	12.63	55.5	147.8
06	3	Tall Fescue Hay		06/27/12	06/27/12	105.8	1,636.5	36.7	S	6.1	4.8	13.12	14.4	39.4

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	112	**Calendar Year:**	2012
Applied Acres:	104.3	**Farm Code:**	MS006
WT Applied:	1,185.4	**Farm Name:**	JoHNSON, R. DALLAS
DT Applied:	479.4	**State:**	TN
		County:	Meigs
		Lat/Long:	N 35.3186 W 84.9238

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	11.5	Tall Fescue Pasture		07/25/12	07/25/12	83.8	1,255.2	23.9	S	3.8	3.7	9.14	42.5	105.1
02	20.3	Tall Fescue Pasture		07/17/12	07/23/12	112.4	1,656.9	32.1	S	5.3	5.0	12.23	100.5	248.4
03	7.7	Tall Fescue Hay		07/25/12	07/25/12	104.4	1,562.2	29.7	S	5.2	4.6	11.38	35.4	87.6
05	40.2	Tall Fescue Hay		07/17/12	07/31/12	113.2	1,683.1	32.3	S	5.1	5.0	12.34	200.6	496.0
06	13	Tall Fescue Pasture		07/26/12	07/26/12	74.7	1,118.1	21.2	S	3.8	3.3	8.14	42.8	105.8
07	11.6	Tall Fescue Hay		07/23/12	07/24/12	112.8	1,663.4	32.2	S	5.3	5.0	12.28	57.6	142.5

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	218.5	**Calendar Year:**	2012
Applied Acres:	169.2	**Farm Code:**	MS007
WT Applied:	2,020.4	**Farm Name:**	BACON, RODNEY
DT Applied:	741.9	**State:**	TN
		County:	Meigs
		Lat/Long:	N 35.3303 W 84.9537

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	53.9	Tall Fescue Pasture		07/12/12	07/27/12	81.4	1,191.4	29.4	S	5.6	3.8	10.75	204.1	579.6
02	20.7	Tall Fescue Pasture		07/11/12	07/12/12	87.4	1,302.8	29.6	S	5.5	4.0	10.91	83.1	225.8
03	39.5	Tall Fescue Pasture		07/25/12	07/27/12	93.3	1,394.5	30.5	S	5.5	4.2	11.31	167.9	446.8
04	17.5	Tall Fescue Pasture		07/25/12	07/25/12	88.5	1,323.3	29.0	S	5.5	4.0	10.73	70.6	187.8
08	21.7	Tall Fescue Hay		07/09/12	07/10/12	128.2	1,916.1	41.9	S	7.5	5.8	15.54	126.7	337.3
09	12.5	Tall Fescue Hay		07/27/12	07/27/12	125.3	1,858.1	42.5	S	7.6	5.7	15.68	71.9	196.1
10	3.4	Tall Fescue Hay		07/30/12	07/30/12	114.1	1,706.0	37.3	S	7.5	5.2	13.84	17.7	47.0

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	197.9	**Calendar Year:**	2012
Applied Acres:	99.3	**Farm Code:**	RH003
WT Applied:	1,380.9	**Farm Name:**	OWENSBY, JUANITA
DT Applied:	512.8	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.5609 W 84.8818

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
02	30.7	Tall Fescue Hay		06/14/12	06/18/12	100.0	1,546.8	34.7	S	5.6	4.5	12.40	139.6	380.8
03	23.2	Tall Fescue Pasture		06/18/12	06/19/12	106.6	1,604.3	35.3	S	5.5	4.9	12.98	112.6	301.2
04	12	Tall Fescue Hay		06/19/12	06/19/12	136.4	2,039.3	44.6	S	7.5	6.2	16.54	74.6	198.5
05	17.3	Tall Fescue Hay		06/19/12	06/20/12	137.3	2,052.7	44.9	S	7.5	6.3	16.65	108.2	288.0
06	16.1	Tall Fescue Hay		06/13/12	06/14/12	106.3	1,645.0	36.9	S	6.0	4.8	13.19	77.8	212.4

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	143.5	**Calendar Year:**	2012
Applied Acres:	131.5	**Farm Code:**	RH004
WT Applied:	2,928.7	**Farm Name:**	ARCHER, EUGENE
DT Applied:	1,176.6	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.5415 W 84.9046

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	28.4	Soybeans		06/05/12	06/08/12	87.0	1,311.3	29.6	S	4.8	4.0	10.70	113.4	303.9
02	40.3	Soybeans		05/24/12	05/25/12	82.6	1,230.2	27.8	S	4.3	3.8	10.11	153.3	407.5
03	62.8	Soybeans		06/01/12	06/05/12	80.8	1,203.1	27.2	S	4.4	3.7	9.89	233.7	621.1

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	28.4	Corn Grain 176 - 200 bu		12/03/12	12/03/12	43.2	647.5	12.0	S	7.4	2.0	4.63	56.0	131.6
02	40.3	Corn Grain 176 - 200 bu		11/26/12	11/27/12	154.8	2,308.0	43.5	S	7.2	7.1	16.65	284.2	671.2
03	62.8	Corn Grain 176 - 200 bu		11/27/12	11/29/12	117.5	1,750.8	33.0	S	7.2	5.3	12.63	335.9	793.4

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	87.1	**Calendar Year:**	2012
Applied Acres:	70.6	**Farm Code:**	RH005
WT Applied:	739.0	**Farm Name:**	DENTON, GUY
DT Applied:	309.9	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.5266 W 84.9224

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	15.5	Native Grasses Hay or Pasture		11/09/12	11/09/12	100.5	1,462.3	28.3	S	5.4	4.5	10.82	70.4	167.8
02	11.3	Tall Fescue Hay		11/09/12	11/09/12	144.1	2,097.1	40.6	S	7.5	6.5	15.52	73.6	175.4
03	11.6	Tall Fescue Hay		11/09/12	11/10/12	137.8	2,004.5	38.8	S	7.5	6.2	14.84	72.2	172.1
04	15.8	Wheat		11/10/12	11/10/12	77.8	1,132.0	21.9	S	4.1	3.5	8.38	55.5	132.4
05	16.4	Tall Fescue Hay		11/10/12	11/10/12	51.7	752.2	14.6	S	7.5	2.3	5.57	38.3	91.3

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	67.7	**Calendar Year:**	2012
Applied Acres:	67.7	**Farm Code:**	RH006
WT Applied:	1,133.0	**Farm Name:**	DENTON, GUY
DT Applied:	479.7	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.573 W 84.9468

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	7.1	Corn Grain 176 - 200 bu		11/14/12	11/14/12	170.1	2,535.0	47.8	S	9.6	7.7	18.29	55.0	129.9
02	12.9	Tall Fescue Hay		11/16/12	11/16/12	135.0	2,012.8	38.0	S	7.5	6.1	14.52	79.3	187.4
03	15.7	Corn Grain 176 - 200 bu		11/16/12	11/19/12	180.2	2,686.1	50.7	S	9.6	8.2	19.38	128.8	304.3
04	16.2	Corn Grain 176 - 200 bu		11/19/12	11/20/12	158.7	2,365.1	44.6	S	9.6	7.2	17.07	117.1	276.5
05	15.8	Tall Fescue Hay		11/20/12	11/21/12	138.2	2,060.5	38.9	S	7.5	6.3	14.87	99.5	234.9

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	158.1	**Calendar Year:**	2012
Applied Acres:	106.4	**Farm Code:**	RH007
WT Applied:	2,045.3	**Farm Name:**	Massengale, Don
DT Applied:	854.1	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.5125 W 84.9408

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	7.6	Tall Fescue Hay		10/29/12	10/29/12	155.2	2,257.8	44.5	S	7.4	6.9	16.65	52.8	126.6
02	5.9	Tall Fescue Pasture		10/29/12	10/29/12	101.2	1,472.2	29.0	S	5.4	4.5	10.86	26.7	64.1
03	13.1	Tall Fescue Pasture		10/29/12	10/29/12	109.2	1,588.6	31.3	S	5.4	4.9	11.72	64.0	153.5
04	12.8	Tall Fescue Hay		10/29/12	10/30/12	161.9	2,356.0	46.4	S	7.4	7.2	17.38	92.8	222.4
05	13.7	Wheat	Corn Silage 19 -25 T/Ac	10/30/12	10/30/12	228.5	3,324.3	65.5	S	10.7	10.2	24.52	140.1	335.9
06	16.1	Corn Silage 19 -25 T/Ac	Wheat	10/30/12	10/31/12	198.4	2,887.1	56.6	S	10.8	8.9	21.32	143.4	343.2
08	7.2	Wheat	Corn Silage 19 -25 T/Ac	10/30/12	10/31/12	225.5	3,281.1	64.7	S	10.7	10.1	24.20	72.7	174.3
09	10.4	Wheat	Corn Silage 19 -25 T/Ac	10/31/12	10/31/12	234.4	3,410.0	67.0	S	10.8	10.5	25.17	109.2	261.7
10	4	Tall Fescue Hay		10/31/12	10/31/12	145.6	2,117.9	41.0	S	7.5	6.6	15.68	26.3	62.7
11	15.6	Corn Grain 176 - 200 bu	Wheat	10/31/12	10/31/12	179.0	2,605.1	50.5	S	13.6	8.1	19.28	126.2	300.8

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	29.6	**Calendar Year:**	2012
Applied Acres:	25.7	**Farm Code:**	RH009
WT Applied:	449.3	**Farm Name:**	HENDERSON, DORRIS
DT Applied:	190.2	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.579 W 84.9523

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	14.2	Corn Grain 176 - 200 bu		11/22/12	11/22/12	181.6	2,707.3	51.1	S	9.6	8.3	19.54	117.5	277.4
02	11.5	Tall Fescue Hay		11/22/12	11/23/12	139.0	2,071.3	39.1	S	7.5	6.3	14.95	72.8	171.9

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	72.6	**Calendar Year:**	2012
Applied Acres:	72.6	**Farm Code:**	RH011
WT Applied:	980.8	**Farm Name:**	HOUSLEY, DONALD
DT Applied:	372.1	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.614 W 84.8704

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	18.6	Tall Fescue Hay		11/17/12	11/18/12	70.4	1,007.0	22.0	S	7.7	3.3	8.23	60.7	153.0
02	14.8	Tall Fescue Hay		11/17/12	11/18/12	90.3	1,335.7	26.3	S	7.6	4.1	9.97	61.3	147.6
03	18.4	Tall Fescue Hay		11/18/12	11/18/12	131.5	1,830.4	47.5	S	8.0	6.4	17.28	116.9	317.9
04	20.8	Tall Fescue Hay		11/18/12	11/18/12	132.5	1,844.6	47.9	S	8.0	6.4	17.41	133.2	362.2

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	83.8	**Calendar Year:**	2012
Applied Acres:	83.8	**Farm Code:**	RH013
WT Applied:	1,572.7	**Farm Name:**	BOWERS, DEWAYNE
DT Applied:	659.6	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.5443 W 84.8962

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	34.8	Corn Grain 176 - 200 bu		11/02/12	11/06/12	170.9	2,486.9	48.2	S	9.5	7.7	18.41	268.7	640.6
02	20.3	Corn Grain 176 - 200 bu		11/06/12	11/08/12	178.3	2,594.7	50.3	S	9.5	8.1	19.21	163.5	389.9
03	28.7	Corn Grain 176 - 200 bu		11/01/12	11/02/12	175.4	2,552.1	49.4	S	9.5	7.9	18.89	227.4	542.2

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Calendar Year:	2012		
Farm Code:	RH014		
Farm Name:	BrOOKS, HOWARD	**Approved Acres:**	192.3
State:	TN	**Applied Acres:**	192.3
County:	Rhea	**WT Applied:**	3,030.8 (3010.5 in CalYr 2012)
Lat/Long:	N 35.4506 W 84.9483	**DT Applied:**	1,268.4 (1259.9 in CalYr 2012)

Crop Year: 2013

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	3.4	Tall Fescue Hay		11/14/12	11/14/12	113.7	1,654.9	32.1	S	7.5	5.1	12.25	17.5	41.6
02	23.9	Tall Fescue Hay		11/14/12	11/14/13	138.5	2,015.1	39.0	S	7.5	6.3	14.92	149.5	356.5
03	1.5	Bermudagrass, Common – Hay		11/14/12	11/14/12	133.3	1,940.0	37.6	S	13.6	6.0	14.36	9.0	21.5
04	27.2	Corn Grain 176 - 200 bu		11/14/12	11/15/12	179.1	2,606.1	50.5	S	9.5	8.1	19.29	220.1	524.7
05	2.8	Bermudagrass, Common – Hay		11/14/12	11/14/12	132.3	1,924.6	37.3	S	13.6	6.0	14.25	16.7	39.9
06	12.4	Corn Grain 176 - 200 bu		11/15/12	11/16/12	161.2	2,344.8	45.4	S	9.5	7.3	17.36	90.3	215.2
07	8.6	Tall Fescue Hay		10/11/12	10/11/12	141.3	2,056.1	39.8	S	7.5	6.4	15.22	54.9	130.9
08	34.8	Corn Grain 176 - 200 bu		10/09/12	10/10/12	179.0	2,604.9	51.4	S	9.4	8.0	19.21	278.8	668.7
09	23.1	Corn Grain 176 - 200 bu		10/08/12	10/09/12	177.6	2,584.6	51.0	S	9.4	7.9	19.06	183.6	440.4
10	33.6	Corn Grain 176 - 200 bu		11/16/12	11/16/12	104.3	1,518.2	29.4	S	9.5	4.7	11.24	158.4	377.6
11	21	Corn Grain 176 - 200 bu		11/17/12	11/17/12	94.5	1,375.3	26.6	S	9.5	4.3	10.18	89.7	213.8

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	102.6	**Calendar Year:**	2012
Applied Acres:	51.7	**Farm Code:**	SE011
WT Applied:	925.7	**Farm Name:**	Land, Thomas
DT Applied:	348.3	**State:**	TN
		County:	Sequatchie
		Lat/Long:	N 35.4291 W 85.46093

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
03	14.1	Corn Silage > 25 T/Ac		06/01/12	06/02/12	156.2	2,326.8	52.6	S	8.3	7.2	19.13	101.5	269.7
04	9	Tall Fescue Hay		06/02/12	06/02/12	148.8	2,217.2	50.1	S	7.6	6.9	18.23	61.7	164.0
05	28.6	Corn Silage > 25 T/Ac		06/04/12	06/06/12	140.5	2,092.7	47.3	S	8.3	6.5	17.20	185.1	492.0

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	329.2	**Calendar Year:**	2012
Applied Acres:	329.2	**Farm Code:**	SE012
WT Applied:	3,552.1	**Farm Name:**	Studer, James
DT Applied:	1,207.5	**State:**	TN
		County:	Sequatchie
		Lat/Long:	N 35.53862 W 85.47806

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	33.1	Tall Fescue Hay		05/04/12	05/04/12	105.7	1,628.4	42.1	S	6.0	4.9	14.58	163.8	482.5
02	45.1	Tall Fescue Hay		05/01/12	05/03/12	106.9	1,667.9	41.4	S	6.0	5.0	14.67	223.3	661.8
03	119.2	Tall Fescue Pasture		02/06/12	06/29/12	70.3	1,082.5	28.0	S	3.9	3.3	9.69	392.1	1155.1
04	112.5	Tall Fescue Pasture		07/02/12	07/09/12	72.5	1,115.9	28.9	S	4.0	3.4	9.99	381.5	1123.9
05	12.8	Tall Fescue Pasture		05/01/12	05/01/12	55.3	872.8	18.6	S	3.8	2.5	6.87	31.9	87.9
06	6.5	Tall Fescue Pasture		05/01/12	05/01/12	50.7	800.8	17.0	S	3.9	2.3	6.30	14.9	41.0

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	129.2	**Calendar Year:**	2012
Applied Acres:	129.2	**Farm Code:**	SE013
WT Applied:	1,048.3	**Farm Name:**	Mary Grace Kelly
DT Applied:	383.1	**State:**	TN
		County:	Sequatchie
		Lat/Long:	N 35.51682 W 85.43022

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	39.5	Tall Fescue Pasture		05/05/12	05/05/12	60.5	936.9	21.0	S	3.4	2.8	7.51	108.8	296.8
02	42.5	Tall Fescue Pasture		05/07/12	05/07/12	62.1	981.0	20.9	S	3.4	2.8	7.72	119.1	328.1
03	17.1	Tall Fescue Pasture		05/08/12	05/08/12	67.8	1,048.4	23.5	S	4.0	3.1	8.41	52.7	143.8
04	30.1	Tall Fescue Pasture		06/08/12	06/08/12	74.9	1,158.7	26.0	S	4.2	3.4	9.29	102.5	279.7

Agronomic Loading Rate Summary Worksheet

The average of 52 biosolids analyses is used for each calculation.

Approved Acres:	34.3	**Calendar Year:**	2012
Applied Acres:	24.3	**Farm Code:**	SE018
WT Applied:	381.1	**Farm Name:**	SEALS, IRENE
DT Applied:	143.4	**State:**	TN
		County:	Sequatchie
		Lat/Long:	N 35.46493 W 85.45896

Crop Year: 2012

Field	Acres	Planned Crop 1	Planned Crop 2	Start Date	Stop Date	Applied N (PAN) lb/A	Applied P2O5 lb/A	Applied K2O lb/A	App. Meth.	Calculated App. Rate Biosolids DT/acre	Actual Rate Applied Biosolids DT/A	Actual Rate Applied Biosolids WT/A	Total Field Biosolids DT	Total Field Biosolids WT
01	11.7	Tall Fescue Hay		05/24/12	05/24/12	147.5	2,197.7	49.7	S	7.6	6.8	18.07	79.5	211.4
02	12.6	Corn Silage > 25 T/Ac		05/24/12	05/25/12	110.0	1,638.5	37.1	S	8.3	5.1	13.47	63.9	169.7

APPENDIX B (2)
2012 LAND APPLICATION SITES
Cumulative Pollutant Loading Rate Summary

40CFR 503 ANNUAL SLUDGE REPORT
MOCCASIN BEND WWTP
CHATTANOOGA, TN
NPDES PERMIT NO. TN0024210

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A08FH

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A08FH-1				0.00	0.01	0.05	0.19	0.03	0.00	0.03	0.06	0.00	0.62
TA08FH-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A8GP

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A8GP-1				0.01	0.02	0.14	0.62	0.09	0.00	0.10	0.17	0.01	2.13

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A8JC

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A8JC-1				0.03	0.03	0.24	0.84	0.12	0.00	0.15	0.38	0.02	2.96

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A08KL

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A08KL-1				0.03	0.04	0.37	1.38	0.19	0.01	0.22	0.46	0.02	4.63

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A08LW

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A08LW-1				0.03	0.06	0.53	1.72	0.28	0.01	0.37	0.68	0.03	6.55

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A08RT

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A08RT-1				0.01	0.02	0.21	0.87	0.12	0.00	0.13	0.24	0.01	2.78

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A11KF

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A11KF-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28AD

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A28AD-1				0.01	0.02	0.19	0.74	0.09	0.00	0.10	0.19	0.01	2.30

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28BP

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A28BP-1				0.00	0.01	0.06	0.24	0.04	0.00	0.04	0.07	0.00	0.82

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28CP

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A28CP-1				0.01	0.02	0.17	0.75	0.12	0.01	0.13	0.22	0.01	2.61

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28DS

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A28DS-1				0.00	0.01	0.09	0.36	0.06	0.00	0.06	0.11	0.00	1.28

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28EB

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A28EB-1				0.03	0.03	0.23	0.71	0.11	0.00	0.16	0.35	0.01	2.72

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28JG

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A28JG-1				0.00	0.01	0.04	0.19	0.03	0.00	0.02	0.05	0.00	0.63

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28NJ

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A28NJ-1				0.02	0.03	0.36	1.41	0.17	0.00	0.19	0.37	0.02	4.39

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28Put

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A28Put-1				0.02	0.02	0.15	0.59	0.08	0.00	0.11	0.26	0.01	2.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28RC

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T3350-1				0.02	0.02	0.17	0.53	0.08	0.00	0.12	0.26	0.01	2.02
T3350-2				0.02	0.02	0.19	0.58	0.09	0.00	0.13	0.28	0.01	2.20
T66617-1				0.01	0.01	0.12	0.37	0.06	0.00	0.08	0.18	0.01	1.40
T66617-2				0.01	0.01	0.12	0.38	0.06	0.00	0.09	0.19	0.01	1.44
T66617-3				0.01	0.01	0.13	0.39	0.06	0.00	0.09	0.19	0.01	1.49

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28RL

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A28RL-1				0.01	0.01	0.11	0.34	0.05	0.00	0.08	0.17	0.01	1.30

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28SW

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A28SW-1				0.00	0.01	0.07	0.30	0.04	0.00	0.04	0.08	0.00	0.95

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28TR

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A28TR-1				0.00	0.01	0.13	0.49	0.06	0.00	0.06	0.12	0.01	1.54

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A28Weng

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A28Weng-				0.02	0.03	0.28	1.13	0.15	0.00	0.16	0.41	0.02	3.65

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A31SW

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A31SW-1				0.00	0.00	0.04	0.13	0.02	0.00	0.03	0.07	0.00	0.47

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A39MH

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A39MH-1				0.02	0.02	0.16	0.57	0.07	0.00	0.11	0.32	0.01	1.90

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A47DH

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A47DH-1				0.01	0.01	0.14	0.54	0.08	0.01	0.09	0.16	0.01	1.93

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50AO

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50AO-1				0.01	0.02	0.19	0.81	0.12	0.01	0.13	0.24	0.01	2.74

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50BE

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50BE-1				0.01	0.01	0.09	0.33	0.04	0.00	0.07	0.18	0.01	1.11

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50BH

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50BH-1				0.00	0.01	0.08	0.34	0.05	0.00	0.05	0.09	0.00	1.08

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50BT

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50BT-1				0.03	0.03	0.32	1.22	0.16	0.00	0.18	0.45	0.02	3.98

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50CF

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50CF-1				0.06	0.08	0.79	3.00	0.41	0.01	0.48	1.06	0.04	10.04

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50DE

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50DE-1				0.01	0.02	0.16	0.60	0.09	0.01	0.10	0.18	0.01	2.01

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50DJ

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50DJ-1				0.00	0.01	0.11	0.45	0.06	0.00	0.07	0.12	0.01	1.51

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50EB

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50EB-1				0.01	0.02	0.19	0.82	0.11	0.00	0.11	0.22	0.01	2.58

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50GG1

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50GG1-1				0.00	0.01	0.10	0.39	0.06	0.00	0.06	0.12	0.00	1.29

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50HW

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50HW-1				0.02	0.04	0.38	1.14	0.18	0.00	0.25	0.48	0.02	4.36

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50JB

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50JB-1				0.01	0.01	0.14	0.57	0.09	0.01	0.10	0.17	0.01	1.93

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50JE

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50JE-1				0.04	0.03	0.32	1.12	0.16	0.00	0.21	0.57	0.02	3.84

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50JP

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50JP-1				0.01	0.01	0.11	0.33	0.05	0.00	0.07	0.16	0.01	1.26

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50JW

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50JW-1				0.00	0.00	0.05	0.19	0.03	0.00	0.03	0.06	0.00	0.65

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50KG2

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50KG2-1				0.01	0.01	0.12	0.49	0.07	0.01	0.08	0.14	0.01	1.70

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50KS

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50KS-1				0.01	0.01	0.13	0.48	0.07	0.01	0.08	0.14	0.01	1.72

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50LB

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50LB-1				0.00	0.01	0.05	0.18	0.03	0.00	0.03	0.05	0.00	0.66

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50PE

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50PE-1				0.03	0.02	0.22	0.82	0.10	0.00	0.11	0.33	0.02	2.54

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50PT

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50PT-1				0.01	0.01	0.11	0.48	0.07	0.01	0.08	0.14	0.01	1.62

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50RB

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50RB-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50RW2

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50RW2-1				0.00	0.01	0.10	0.40	0.05	0.00	0.06	0.11	0.00	1.24

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50SM

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50SM-1				0.02	0.04	0.35	1.39	0.22	0.01	0.23	0.41	0.02	4.78

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50SW

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50SW-1				0.01	0.02	0.20	0.77	0.11	0.00	0.12	0.22	0.01	2.66

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50TA

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50TA-1				0.07	0.11	1.04	4.24	0.56	0.01	0.64	1.38	0.05	13.75

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50TB

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50TB-1				0.00	0.01	0.09	0.36	0.05	0.00	0.05	0.10	0.00	1.12

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50U1

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
A50U1-1				0.01	0.02	0.20	0.79	0.11	0.01	0.12	0.22	0.01	2.64

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50WS

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50WS-1				0.00	0.00	0.04	0.13	0.02	0.00	0.03	0.06	0.00	0.50

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50YS-1

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50YS-1-1				0.01	0.01	0.12	0.39	0.06	0.00	0.08	0.15	0.01	1.49

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50YS-2

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50YS-2-1				0.01	0.01	0.11	0.36	0.06	0.00	0.08	0.14	0.01	1.37
A50YS-2-2				0.01	0.01	0.12	0.40	0.06	0.00	0.09	0.15	0.01	1.53

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50YS-3

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50YS-3-1				0.01	0.01	0.12	0.40	0.06	0.00	0.09	0.15	0.01	1.53

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50YS-4

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50YS-4-1				0.01	0.01	0.13	0.43	0.07	0.00	0.09	0.16	0.01	1.62
A50YS-4-2				0.01	0.01	0.12	0.40	0.06	0.00	0.09	0.15	0.01	1.52

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50YS-5

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50YS-5-1				0.00	0.01	0.07	0.24	0.04	0.00	0.05	0.09	0.00	0.91

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50YS-6

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50YS-6-1				0.01	0.02	0.15	0.45	0.07	0.00	0.10	0.19	0.01	1.72

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A50YS-7

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
A50YS-7-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A288

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T488-1				0.04	0.08	0.60	2.48	0.36	0.01	0.44	0.79	0.03	8.78
T489-1				0.06	0.09	0.84	2.68	0.43	0.01	0.58	1.09	0.04	10.24

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A357

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T534-1				0.02	0.05	0.42	1.84	0.24	0.01	0.23	0.47	0.02	5.88
T535-1				0.01	0.03	0.29	1.25	0.16	0.00	0.16	0.32	0.01	3.99
T536-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A532

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T639-1				0.08	0.08	0.75	2.34	0.37	0.01	0.53	1.15	0.04	8.92
T639-2				0.08	0.09	0.78	2.41	0.38	0.01	0.54	1.18	0.04	9.17
T639-3				0.09	0.09	0.80	2.47	0.39	0.01	0.55	1.21	0.05	9.40
T639-4				0.05	0.05	0.42	1.30	0.20	0.00	0.29	0.64	0.02	4.93

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A712

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T5048-1				0.05	0.04	0.38	1.31	0.17	0.00	0.26	0.73	0.03	4.42

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A3167

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T3770-1				0.08	0.08	0.73	2.27	0.36	0.01	0.51	1.11	0.04	8.63
T3770-2				0.07	0.07	0.60	1.87	0.30	0.01	0.42	0.92	0.03	7.13
T3770-3				0.07	0.07	0.63	1.95	0.31	0.01	0.44	0.96	0.04	7.44

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A3349

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T3843-1				0.09	0.09	0.79	2.46	0.39	0.01	0.55	1.21	0.05	9.36
T3843-2				0.06	0.06	0.54	1.66	0.26	0.00	0.37	0.82	0.03	6.33

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A4562

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T7052-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T7052-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T7052-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T7052-4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A5228

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
T637-1				0.00	0.01	0.10	0.41	0.05	0.00	0.05	0.10	0.00	1.30

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A6293

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T11308-1				0.08	0.08	0.73	2.26	0.35	0.01	0.50	1.10	0.04	8.54

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A6557

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T3712-1				0.11	0.09	0.85	2.94	0.39	0.01	0.60	1.62	0.06	10.00
T3712-2				0.11	0.09	0.81	2.81	0.37	0.01	0.57	1.55	0.05	9.54
T3712-3				0.10	0.08	0.72	2.50	0.33	0.01	0.51	1.38	0.05	8.49
T3712-4				0.10	0.08	0.71	2.47	0.33	0.01	0.50	1.36	0.05	8.39
T3712-5				0.10	0.08	0.76	2.65	0.35	0.01	0.54	1.46	0.05	9.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A6656

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T10868-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A7567

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
T12077-1				0.08	0.08	0.76	2.37	0.37	0.01	0.53	1.16	0.04	9.02
T12077-2				0.08	0.08	0.72	2.24	0.35	0.01	0.50	1.10	0.04	8.52

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A7567B

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T3694-1				0.08	0.08	0.72	2.23	0.35	0.01	0.50	1.10	0.04	8.51
T3694-2				0.08	0.08	0.70	2.17	0.34	0.01	0.49	1.07	0.04	8.27
T3694-3				0.08	0.08	0.77	2.38	0.38	0.01	0.53	1.17	0.04	9.05
T3694-4				0.08	0.08	0.74	2.28	0.36	0.01	0.51	1.12	0.04	8.69
T3694-5				0.08	0.08	0.74	2.29	0.36	0.01	0.51	1.12	0.04	8.72

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A7780

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T476-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T476-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T674-1				0.06	0.08	0.79	2.42	0.39	0.01	0.53	1.04	0.04	9.25
T674-2				0.09	0.09	0.79	2.44	0.39	0.01	0.55	1.20	0.04	9.30

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A7918

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
T496-1				0.01	0.03	0.20	0.91	0.12	0.00	0.12	0.23	0.01	2.91

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A8000

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
12450-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A8038

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T12341-1				0.02	0.06	0.53	2.28	0.30	0.01	0.28	0.58	0.02	7.30
T12341-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A8039

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T12492-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T12492-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T12492-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T12492-4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A8051

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T12503-1				0.01	0.04	0.29	1.28	0.17	0.00	0.16	0.33	0.01	4.10

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A9296

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T13745-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T13745-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T13745-5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A11029

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T3427-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3427-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3428-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3428-3				0.04	0.04	0.34	1.05	0.17	0.00	0.23	0.51	0.02	3.98
T3428-4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: A11030

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T3429-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3429-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3429-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3429-4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3429-5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3429-6				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3430-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3430-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3430-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T3431-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL001

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.12	0.15	1.44	5.29	0.68	0.03	0.72	1.66	0.14	16.96
02				0.12	0.15	1.47	5.40	0.68	0.03	0.74	1.68	0.14	17.30
03				0.11	0.14	1.36	5.04	0.63	0.02	0.68	1.54	0.13	16.06
04				0.09	0.11	1.07	3.96	0.45	0.01	0.49	1.18	0.11	12.31

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL002

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.08	0.09	0.84	3.16	0.36	0.01	0.38	1.02	0.07	9.73
02				0.02	0.04	0.44	1.69	0.21	0.01	0.23	0.45	0.02	5.29

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL003

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.09	0.10	0.99	3.69	0.42	0.01	0.44	1.18	0.09	11.35
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.06	0.04	0.39	1.40	0.15	0.00	0.15	0.55	0.05	4.27

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL004

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.07	0.09	0.88	3.39	0.40	0.01	0.41	1.05	0.06	10.48
02				0.06	0.04	0.39	1.51	0.16	0.00	0.16	0.64	0.05	4.56
03				0.06	0.04	0.36	1.38	0.15	0.00	0.14	0.58	0.04	4.16
04				0.05	0.04	0.33	1.26	0.13	0.00	0.13	0.53	0.04	3.81

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL006

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
04				0.03	0.02	0.21	0.71	0.07	0.00	0.08	0.26	0.04	2.22
05				0.05	0.04	0.37	1.24	0.13	0.00	0.14	0.46	0.07	3.90
06				0.05	0.03	0.32	1.08	0.11	0.00	0.12	0.40	0.06	3.42

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL007

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.05	0.03	0.32	1.16	0.12	0.00	0.12	0.46	0.05	3.54
06				0.06	0.04	0.39	1.40	0.15	0.00	0.15	0.55	0.05	4.27
07				0.08	0.05	0.52	1.80	0.20	0.00	0.19	0.71	0.08	5.56
08				0.09	0.06	0.59	2.03	0.22	0.00	0.22	0.80	0.09	6.26

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL008

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.07	0.06	0.42	1.52	0.18	0.00	0.20	0.58	0.11	4.78
02				0.12	0.10	0.87	2.89	0.30	0.00	0.33	1.06	0.20	8.95
03				0.08	0.07	0.58	1.92	0.20	0.00	0.22	0.70	0.14	5.94
04				0.10	0.08	0.74	2.46	0.26	0.00	0.27	0.91	0.15	7.62
05				0.12	0.09	0.82	2.77	0.29	0.00	0.31	1.05	0.16	8.57

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL009

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.01	0.05	0.01	0.00	0.01	0.02	0.00	0.16
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08				0.10	0.07	0.55	1.99	0.23	0.00	0.26	0.76	0.14	6.27
09				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10				0.07	0.05	0.39	1.37	0.17	0.00	0.19	0.60	0.09	4.39
11				0.06	0.05	0.36	1.30	0.15	0.00	0.17	0.50	0.09	4.11
12				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14				0.10	0.07	0.55	1.92	0.24	0.00	0.26	0.83	0.12	6.13
15				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL010

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.08	0.06	0.56	1.89	0.20	0.00	0.21	0.71	0.10	5.96
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.07	0.07	0.65	2.28	0.29	0.01	0.30	0.78	0.08	7.29
04				0.07	0.09	0.82	2.90	0.35	0.02	0.39	0.88	0.13	9.21

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL011

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.07	0.12	1.14	3.97	0.62	0.03	0.78	1.44	0.05	14.64
02				0.07	0.12	1.14	3.97	0.62	0.03	0.78	1.44	0.05	14.64
03				0.09	0.11	1.00	3.62	0.47	0.02	0.52	1.19	0.11	12.25
04				0.02	0.03	0.28	0.84	0.13	0.00	0.18	0.36	0.01	3.22
05				0.02	0.03	0.28	0.84	0.13	0.00	0.18	0.36	0.01	3.22

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL016

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.02	0.06	0.55	2.12	0.32	0.02	0.36	0.62	0.02	7.56
02				0.02	0.05	0.51	2.01	0.24	0.01	0.26	0.51	0.02	6.19
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL017

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.04	0.10	1.06	4.08	0.57	0.03	0.60	1.13	0.05	13.00
02				0.05	0.11	1.11	4.28	0.60	0.03	0.63	1.19	0.05	13.67
03				0.03	0.07	0.70	2.71	0.33	0.01	0.35	0.69	0.03	8.37
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.08	0.12	1.16	4.53	0.62	0.03	0.68	1.47	0.06	14.64
06				0.10	0.07	0.65	2.28	0.29	0.00	0.35	1.32	0.05	7.28
07				0.16	0.18	1.80	6.69	0.90	0.03	1.01	2.68	0.10	21.36
08				0.16	0.19	1.88	6.97	0.94	0.03	1.06	2.75	0.10	22.41
09				0.15	0.17	1.73	6.41	0.86	0.03	0.97	2.59	0.10	20.47
10				0.12	0.08	0.79	2.76	0.35	0.01	0.43	1.60	0.05	8.80

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL018

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.05	0.04	0.28	0.99	0.12	0.00	0.14	0.43	0.06	3.17
02				0.07	0.05	0.38	1.33	0.17	0.00	0.18	0.58	0.08	4.24
03				0.06	0.07	0.65	2.42	0.30	0.01	0.32	0.80	0.07	7.50
04				0.10	0.06	0.52	1.81	0.23	0.00	0.25	0.79	0.11	5.78
05				0.06	0.04	0.33	1.14	0.14	0.00	0.16	0.50	0.07	3.65
06				0.08	0.08	0.75	2.78	0.35	0.01	0.37	0.96	0.09	8.67

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL019

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.09	0.10	0.99	3.68	0.46	0.01	0.49	1.16	0.10	11.63
02				0.03	0.07	0.66	2.59	0.35	0.01	0.37	0.73	0.03	8.24
03				0.08	0.10	0.92	3.46	0.43	0.01	0.46	1.08	0.09	10.90
04				0.12	0.17	1.62	5.63	0.77	0.02	0.92	1.96	0.12	19.09
05				0.12	0.15	1.36	5.13	0.64	0.02	0.69	1.64	0.14	16.32

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL020

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01	23	1.40		0.10	0.08	0.72	2.40	0.27	0.00	0.27	0.87	0.14	7.61
02				0.04	0.04	0.37	1.26	0.11	0.00	0.14	0.39	0.10	3.87
03	14.3	2.18		0.09	0.07	0.62	2.07	0.24	0.00	0.23	0.73	0.12	6.57
04	22.7	3.48		0.09	0.08	0.67	2.17	0.26	0.00	0.23	0.71	0.14	6.88
05	44.8	2.31		0.08	0.07	0.63	2.02	0.23	0.00	0.22	0.67	0.13	6.38
06	40.3	3.32		0.08	0.08	0.67	2.21	0.25	0.00	0.24	0.69	0.17	6.97
07	6.6	2.40		0.07	0.06	0.52	1.71	0.21	0.00	0.19	0.60	0.10	5.44

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL021

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01	35.4	4.71		0.13	0.12	0.99	3.23	0.41	0.00	0.34	1.06	0.20	10.25
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03	48	1.37		0.05	0.05	0.42	1.42	0.16	0.00	0.19	0.48	0.07	4.65
04	31.9	4.95		0.02	0.04	0.32	1.30	0.21	0.00	0.25	0.44	0.03	4.80
05	33.9	2.87		0.02	0.03	0.20	0.78	0.15	0.00	0.11	0.26	0.04	2.66
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL022

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	27.3	3.12		0.08	0.08	0.65	2.18	0.25	0.00	0.23	0.68	0.16	6.83
02	22.9	3.85		0.10	0.09	0.75	2.46	0.34	0.00	0.27	0.81	0.16	7.77
03	13.1	3.06		0.08	0.08	0.62	2.12	0.24	0.00	0.22	0.65	0.16	6.61
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05	6.9	3.24		0.09	0.08	0.70	2.28	0.30	0.00	0.25	0.75	0.15	7.18
06	20.9	4.61		0.12	0.11	0.99	3.17	0.38	0.00	0.33	1.02	0.21	10.00
07	28.4	4.45		0.11	0.11	0.95	3.09	0.36	0.00	0.33	0.98	0.22	9.70
08	16.6	3.76		0.10	0.09	0.78	2.56	0.34	0.00	0.28	0.84	0.17	8.08
09	24.2	4.54		0.11	0.11	0.95	3.09	0.37	0.00	0.33	0.98	0.22	9.70
10	31.4	3.12		0.10	0.09	0.70	2.49	0.35	0.00	0.27	0.78	0.19	7.91
11	12.5	2.61		0.09	0.08	0.60	2.14	0.30	0.00	0.24	0.68	0.17	6.76
12	33.2	4.21		0.12	0.11	0.91	3.26	0.42	0.00	0.34	1.00	0.20	10.36

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL023

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	22.9	3.12		0.09	0.09	0.70	2.48	0.33	0.00	0.27	0.78	0.19	7.90
02	33.9	4.38		0.11	0.11	0.81	3.05	0.41	0.00	0.32	0.91	0.21	9.64

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL024

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	17.8	3.17		0.09	0.09	0.54	2.29	0.30	0.00	0.27	0.72	0.17	7.20
02	13	4.73		0.12	0.12	0.76	3.21	0.43	0.00	0.37	1.00	0.24	10.12
03				0.05	0.04	0.37	1.18	0.12	0.00	0.14	0.40	0.11	3.66

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL025

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	48.9	5.13		0.06	0.05	0.46	1.49	0.14	0.00	0.18	0.51	0.14	4.60
02	50.6	3.04		0.05	0.04	0.37	1.22	0.11	0.00	0.14	0.41	0.11	3.77

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL026

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	27.5	3.14		0.09	0.08	0.72	2.32	0.28	0.00	0.25	0.76	0.15	7.31
02	18.7	4.28		0.13	0.11	1.00	3.22	0.39	0.00	0.34	1.06	0.20	10.17
03	20.4	2.80		0.08	0.07	0.61	1.98	0.24	0.00	0.21	0.65	0.13	6.24
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05	8.4	3.68		0.12	0.10	0.91	2.95	0.35	0.00	0.31	0.98	0.19	9.31

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL027

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL028

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	21.3	5.68		0.16	0.15	1.28	4.17	0.54	0.01	0.45	1.37	0.28	13.13
02	28.9	4.43		0.12	0.12	0.98	3.26	0.42	0.00	0.34	1.04	0.21	10.33
03	40.3	5.45		0.19	0.22	1.97	6.89	0.85	0.02	0.80	2.06	0.30	21.58
04	4.7	5.76		0.14	0.14	1.18	3.79	0.48	0.01	0.40	1.22	0.25	12.00
05	24.2	3.42		0.13	0.12	1.03	3.31	0.38	0.00	0.35	1.07	0.22	10.42
06	29.8	3.38		0.08	0.08	0.67	2.33	0.29	0.00	0.25	0.71	0.16	7.34
07	14.1	4.64		0.12	0.11	0.96	3.21	0.42	0.00	0.34	1.02	0.21	10.17
08				0.08	0.12	1.14	4.15	0.46	0.01	0.51	1.19	0.13	12.80

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL029

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL030

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL031

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.05	0.05	0.41	1.32	0.13	0.00	0.16	0.45	0.13	4.08
03				0.04	0.04	0.43	1.26	0.10	0.00	0.14	0.39	0.11	3.89
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07				0.04	0.04	0.42	1.21	0.10	0.00	0.13	0.38	0.11	3.76
08				0.06	0.06	0.63	1.81	0.15	0.00	0.20	0.57	0.16	5.62
09				0.06	0.06	0.50	1.78	0.15	0.00	0.19	0.54	0.15	5.47
10				0.06	0.06	0.49	1.76	0.15	0.00	0.19	0.54	0.15	5.40

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL032

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL033

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	20.8	6.24		0.15	0.15	1.07	3.95	0.54	0.01	0.43	1.23	0.29	12.42
02	71.6	6.15		0.12	0.13	1.02	3.44	0.44	0.00	0.36	1.07	0.25	10.83
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.08	0.08	0.63	2.24	0.19	0.00	0.24	0.68	0.19	6.89
05	38.9	4.48		0.12	0.13	1.02	3.51	0.40	0.00	0.37	1.08	0.27	10.98
06	65	5.39		0.09	0.09	0.79	2.45	0.32	0.00	0.26	0.77	0.18	7.75
07				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08	36.1	7.85		0.08	0.08	0.69	2.22	0.35	0.00	0.23	0.70	0.15	7.10
09	90.1	3.49		0.04	0.04	0.30	0.99	0.16	0.00	0.10	0.31	0.06	3.16
10	84.4	6.46		0.13	0.14	1.18	3.72	0.46	0.00	0.39	1.17	0.28	11.71
11				0.05	0.05	0.44	1.40	0.11	0.00	0.15	0.43	0.12	4.29

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL034

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	13.8	4.85		0.12	0.12	0.91	3.19	0.39	0.00	0.35	1.01	0.24	9.93
02	30.4	5.52		0.14	0.14	1.10	3.82	0.47	0.01	0.42	1.21	0.29	11.91
03	57.9	3.45		0.08	0.08	0.67	2.27	0.28	0.00	0.25	0.72	0.17	7.08
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05	18.3	2.50		0.09	0.09	0.69	2.42	0.27	0.00	0.26	0.76	0.19	7.49
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL037

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	24.5	6.38		0.07	0.07	0.40	1.79	0.37	0.00	0.18	0.51	0.09	5.83
02	31	4.83		0.04	0.05	0.30	1.36	0.25	0.00	0.13	0.37	0.07	4.49
03	12.9	4.80		0.04	0.05	0.30	1.35	0.25	0.00	0.13	0.37	0.07	4.46

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL038

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL039

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02	15.7	4.55		0.04	0.05	0.27	1.27	0.21	0.00	0.14	0.35	0.06	4.38
03	36.9	4.74		0.04	0.05	0.28	1.33	0.22	0.00	0.15	0.37	0.06	4.59
04	36.4	6.38		0.06	0.07	0.38	1.81	0.30	0.00	0.20	0.50	0.08	6.21
05	17.7	4.08		0.04	0.04	0.24	1.16	0.19	0.00	0.13	0.32	0.05	3.97
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07	9.5	6.58		0.06	0.07	0.39	1.84	0.31	0.00	0.20	0.51	0.09	6.33
08	15.7	6.16		0.06	0.06	0.36	1.72	0.29	0.00	0.19	0.48	0.08	5.94

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL040

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F28

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T52-1				0.02	0.05	0.55	1.91	0.30	0.02	0.31	0.52	0.02	6.24
T52-1a				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T52-1b				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T52-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T52-4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T52-5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F30

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
T88				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T88-1				0.00	0.00	0.02	0.06	0.01	0.00	0.01	0.02	0.00	0.18

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F41

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T359-1				0.02	0.04	0.41	1.63	0.25	0.02	0.28	0.48	0.02	5.84
T359-2				0.02	0.04	0.37	1.45	0.22	0.02	0.24	0.43	0.02	5.16
T359-3				0.04	0.08	0.80	3.12	0.43	0.02	0.46	0.88	0.04	10.29
T359-4				0.04	0.10	0.94	3.65	0.51	0.03	0.55	1.04	0.04	12.13
T359-5				0.02	0.05	0.43	1.72	0.27	0.02	0.29	0.51	0.02	6.16
T359-6				0.05	0.10	1.00	3.90	0.54	0.03	0.59	1.12	0.05	12.87
T359-7				0.04	0.10	0.95	3.68	0.51	0.03	0.56	1.06	0.04	12.20

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F71

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
T269-1				0.02	0.05	0.55	1.91	0.30	0.02	0.31	0.52	0.02	6.24

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F83

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T90-1				0.03	0.07	0.66	2.57	0.32	0.01	0.34	0.73	0.03	7.86
T90-2				0.02	0.05	0.48	1.89	0.23	0.01	0.25	0.48	0.02	5.83
T90-3				0.02	0.04	0.41	1.58	0.19	0.00	0.21	0.40	0.02	4.88
T90-4				0.02	0.04	0.44	1.73	0.21	0.01	0.23	0.44	0.02	5.35
T90-5				0.02	0.04	0.37	1.44	0.17	0.00	0.19	0.37	0.02	4.46
T90-6				0.04	0.08	0.78	3.03	0.38	0.01	0.40	0.86	0.03	9.27

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F95

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T339-1				0.04	0.09	0.91	3.49	0.48	0.02	0.52	0.97	0.04	11.20
T339-2				0.04	0.09	0.91	3.50	0.50	0.03	0.53	0.99	0.04	11.31
T339-3				0.04	0.09	0.91	3.50	0.49	0.02	0.52	0.98	0.04	11.28
T339-4				0.02	0.05	0.55	2.13	0.26	0.01	0.28	0.54	0.02	6.58
T339-5				0.02	0.05	0.49	1.85	0.29	0.02	0.31	0.56	0.02	6.22
T339-6				0.04	0.09	0.92	3.55	0.49	0.02	0.53	0.99	0.04	11.45
T339-7				0.04	0.08	0.86	3.29	0.48	0.03	0.51	0.94	0.04	10.78
T358-3				0.02	0.04	0.37	1.46	0.18	0.00	0.19	0.37	0.02	4.50

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F122

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T91-1				0.02	0.04	0.42	1.65	0.20	0.00	0.21	0.42	0.02	5.09
T91-2				0.02	0.05	0.52	2.05	0.25	0.01	0.27	0.52	0.02	6.33
T91-5				0.01	0.03	0.30	1.19	0.14	0.00	0.15	0.30	0.01	3.67
T91-6				0.02	0.04	0.37	1.46	0.18	0.00	0.19	0.37	0.02	4.49

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F155

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T366-1				0.02	0.05	0.52	2.03	0.25	0.01	0.27	0.57	0.02	6.21
T366-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T366-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T366-4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T366-5				0.02	0.05	0.46	1.78	0.22	0.01	0.24	0.50	0.02	5.46
T366-6				0.03	0.05	0.54	2.08	0.26	0.01	0.28	0.59	0.02	6.37
T366-7				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T366-8				0.03	0.05	0.55	2.12	0.26	0.01	0.28	0.60	0.02	6.47
T530-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T530-10				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T530-11				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T530-12				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T530-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T530-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T530-4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T530-5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T530-6				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T530-7				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T530-8				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T530-9				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F166

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
374-17				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T374-1				0.02	0.04	0.45	1.74	0.21	0.01	0.22	0.44	0.02	5.44
T374-10				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T374-11				0.02	0.04	0.45	1.73	0.21	0.01	0.22	0.44	0.02	5.41
T374-13				0.02	0.05	0.46	1.78	0.22	0.01	0.23	0.45	0.02	5.52
T374-14				0.02	0.05	0.53	2.04	0.25	0.01	0.26	0.52	0.02	6.34
T374-15				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T374-18				0.02	0.05	0.49	1.90	0.23	0.01	0.24	0.49	0.02	5.97
T374-2				0.02	0.05	0.47	1.84	0.22	0.01	0.23	0.47	0.02	5.74
T374-21				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T374-22				0.02	0.04	0.43	1.68	0.20	0.00	0.21	0.43	0.02	5.23
T374-6				0.02	0.04	0.44	1.71	0.21	0.01	0.22	0.44	0.02	5.36
T374-8				0.02	0.04	0.45	1.75	0.21	0.01	0.22	0.44	0.02	5.46

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F167

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T1432-1				0.02	0.05	0.56	2.12	0.33	0.02	0.36	0.64	0.03	7.14
T1432-2				0.02	0.05	0.55	2.09	0.33	0.02	0.35	0.63	0.03	7.03
T1432-4				0.03	0.06	0.59	2.25	0.35	0.02	0.37	0.68	0.03	7.54
T1432-7				0.02	0.05	0.49	1.87	0.29	0.02	0.31	0.57	0.02	6.29

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F201

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T345-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T345-10				0.11	0.12	1.14	4.19	0.54	0.01	0.71	1.75	0.06	13.54
T345-11				0.11	0.12	1.17	4.30	0.55	0.01	0.72	1.77	0.07	13.84
T345-12				0.10	0.12	1.13	4.14	0.53	0.01	0.69	1.71	0.06	13.35
T345-13				0.10	0.11	1.11	4.08	0.52	0.01	0.68	1.67	0.06	13.11
T345-14				0.11	0.13	1.24	4.63	0.58	0.01	0.66	1.86	0.07	14.39
T345-2				0.00	0.01	0.08	0.31	0.04	0.00	0.04	0.09	0.00	0.93
T345-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T345-5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T345-6				0.11	0.07	0.73	2.56	0.32	0.01	0.40	1.48	0.05	8.16
T345-7				0.11	0.09	0.81	2.81	0.37	0.01	0.57	1.55	0.05	9.55
T345-8				0.11	0.09	0.83	2.88	0.38	0.01	0.55	1.61	0.06	9.63
T345-9				0.11	0.08	0.73	2.57	0.32	0.01	0.40	1.49	0.05	8.20

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F206

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
T679-1				0.02	0.05	0.55	1.91	0.30	0.02	0.31	0.52	0.02	6.24

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F225

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T633-2				0.02	0.06	0.56	2.33	0.31	0.01	0.33	0.63	0.03	7.25
T633-3				0.02	0.06	0.54	2.21	0.29	0.01	0.31	0.60	0.02	6.88
T633-4				0.01	0.04	0.33	1.38	0.18	0.00	0.19	0.37	0.01	4.28
T633-6				0.02	0.04	0.37	1.56	0.21	0.01	0.22	0.42	0.02	4.89
T633-7				0.07	0.14	1.27	4.86	0.68	0.02	0.77	1.47	0.06	16.36
T633-8				0.03	0.08	0.81	3.25	0.43	0.01	0.45	0.85	0.04	10.43

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F242

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T311-1				0.01	0.01	0.15	0.54	0.08	0.01	0.09	0.15	0.01	1.75
T311-4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T311-5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T311-6				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T311-7				0.01	0.02	0.18	0.66	0.10	0.01	0.11	0.19	0.01	2.16

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F245

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T286-1				0.02	0.06	0.54	2.35	0.31	0.01	0.29	0.60	0.03	7.53
T286-10				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T286-12				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T286-2				0.03	0.07	0.62	2.68	0.35	0.01	0.33	0.69	0.03	8.58
T286-3				0.02	0.06	0.54	2.31	0.30	0.01	0.29	0.59	0.02	7.40
T286-9				0.02	0.06	0.53	2.33	0.31	0.01	0.29	0.60	0.02	7.45

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F247

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
T683-1				0.02	0.05	0.45	1.91	0.30	0.02	0.32	0.56	0.02	6.50

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F252

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T406-1				0.02	0.05	0.50	1.91	0.24	0.01	0.24	0.48	0.02	6.03
T406-10				0.02	0.05	0.45	1.74	0.22	0.01	0.22	0.44	0.02	5.49
T406-11				0.01	0.04	0.39	1.51	0.19	0.00	0.19	0.38	0.02	4.77
T406-12				0.02	0.05	0.51	1.96	0.25	0.01	0.24	0.49	0.02	6.18
T406-13				0.02	0.06	0.56	2.16	0.27	0.01	0.27	0.54	0.02	6.82
T406-2				0.02	0.05	0.49	1.88	0.24	0.01	0.23	0.47	0.02	5.93
T406-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T406-4				0.02	0.05	0.47	1.82	0.23	0.01	0.23	0.46	0.02	5.75
T406-5				0.03	0.07	0.67	2.57	0.33	0.01	0.32	0.65	0.03	8.13
T406-6				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T406-7				0.02	0.05	0.48	1.86	0.24	0.01	0.23	0.47	0.02	5.87
T406-8				0.02	0.06	0.61	2.35	0.30	0.01	0.29	0.59	0.03	7.41
T406-9				0.02	0.05	0.55	2.10	0.27	0.01	0.26	0.53	0.02	6.62

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F259

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T283-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T283-10				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T283-13				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T283-14				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T283-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T283-5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T283-9				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F262

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T674-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T674-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T674-3				0.01	0.03	0.30	1.26	0.17	0.01	0.18	0.34	0.01	4.04
T674-4				0.06	0.14	1.40	5.24	0.79	0.05	0.87	1.54	0.06	18.85
T674-5				0.02	0.05	0.50	2.05	0.27	0.01	0.30	0.55	0.02	6.61
T674-6				0.02	0.04	0.36	1.48	0.20	0.01	0.21	0.40	0.02	4.77

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F269

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T348-1				0.02	0.05	0.41	1.68	0.26	0.02	0.28	0.50	0.02	5.99
T348-4				0.02	0.04	0.37	1.44	0.22	0.02	0.24	0.42	0.02	5.14
T348-6				0.02	0.05	0.43	1.66	0.25	0.02	0.28	0.49	0.02	5.93

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F358

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T379-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T379-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T379-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F396

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
T681-1				0.02	0.05	0.47	1.98	0.31	0.02	0.33	0.58	0.02	6.72

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F410

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T892-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T892-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T892-4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T892-5				0.02	0.05	0.38	1.71	0.23	0.00	0.22	0.43	0.02	5.49
T892-6				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T892-7				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F414

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T574-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T574-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F438

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T633-4				0.04	0.10	0.97	4.06	0.54	0.02	0.58	1.10	0.04	12.89
T633-5				0.03	0.06	0.57	2.39	0.32	0.01	0.34	0.65	0.03	7.53
T633-6				0.02	0.05	0.52	2.15	0.29	0.01	0.31	0.58	0.02	6.85
T637-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F486

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T561-1				0.04	0.10	0.81	3.51	0.48	0.01	0.51	0.95	0.04	11.68
T561-2				0.05	0.12	1.01	4.08	0.58	0.01	0.64	1.19	0.05	13.88
T561-3				0.03	0.08	0.60	2.72	0.36	0.01	0.35	0.68	0.03	8.74
T561-4				0.03	0.07	0.58	2.63	0.35	0.01	0.34	0.66	0.03	8.44
T561-5				0.01	0.03	0.21	0.95	0.13	0.00	0.12	0.24	0.01	3.05
T561-6				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T561-7				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T561-8				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F517

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T512-1				0.02	0.05	0.55	1.91	0.30	0.02	0.31	0.52	0.02	6.24

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F518

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T678-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T680-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T710-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F533

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
T648-2				0.02	0.05	0.45	1.66	0.25	0.01	0.27	0.49	0.02	5.99

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F554

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T633-1				0.06	0.11	1.08	3.71	0.53	0.01	0.63	1.23	0.05	12.89
T633-10				0.02	0.05	0.49	1.89	0.24	0.01	0.24	0.48	0.02	5.96
T633-2				0.06	0.11	1.07	3.66	0.52	0.01	0.62	1.21	0.05	12.73
T633-3				0.06	0.11	1.07	3.86	0.55	0.01	0.65	1.21	0.05	13.35
T633-4				0.06	0.11	1.07	3.80	0.55	0.01	0.64	1.21	0.05	13.21
T633-5				0.05	0.11	1.07	3.89	0.55	0.01	0.62	1.17	0.05	13.28
T633-6				0.04	0.07	0.65	1.96	0.31	0.01	0.43	0.83	0.03	7.52
T633-7				0.05	0.11	1.05	3.63	0.51	0.01	0.60	1.17	0.05	12.47
T633-8				0.03	0.07	0.72	2.62	0.35	0.01	0.38	0.75	0.03	8.63
T633-9				0.02	0.06	0.56	2.15	0.27	0.01	0.27	0.54	0.02	6.77

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F564

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T679-1				0.02	0.05	0.46	2.03	0.31	0.02	0.34	0.60	0.02	6.94

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F722

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
T650-1				0.02	0.05	0.48	2.07	0.32	0.02	0.34	0.61	0.02	7.06

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F736

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T856-1				0.01	0.02	0.22	0.77	0.12	0.01	0.13	0.21	0.01	2.49
T929-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T929-2				0.01	0.02	0.22	0.77	0.12	0.01	0.13	0.21	0.01	2.49

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F754

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T324				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T324-1				0.02	0.03	0.49	1.43	0.23	0.00	0.23	0.42	0.02	4.47
T357				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T357-1				0.02	0.03	0.49	1.43	0.23	0.00	0.23	0.42	0.02	4.47
T948				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T948-1				0.02	0.03	0.49	1.44	0.23	0.00	0.23	0.43	0.02	4.38

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F792

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T975-1				0.16	0.18	1.65	6.43	0.86	0.02	0.99	2.41	0.11	21.17
T975-2				0.17	0.18	1.69	6.36	0.83	0.02	0.94	2.46	0.11	20.63
T975-3				0.14	0.17	1.63	5.97	0.81	0.02	0.96	2.38	0.09	19.68
T975-4				0.17	0.18	1.68	6.29	0.83	0.02	0.95	2.42	0.11	20.54
T975-5				0.15	0.18	1.63	6.16	0.82	0.02	0.95	2.37	0.10	20.21
T975-6				0.13	0.14	1.34	4.96	0.63	0.01	0.72	2.13	0.08	15.61

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F793

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T976-1				0.13	0.18	1.63	6.19	0.84	0.02	1.00	2.38	0.09	20.48
T976-2				0.14	0.18	1.65	6.26	0.84	0.02	1.01	2.43	0.09	20.68

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F866

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T1034-1				0.02	0.05	0.38	1.52	0.23	0.00	0.31	0.50	0.02	5.69
T1034-2				0.02	0.04	0.33	1.32	0.20	0.00	0.27	0.43	0.02	4.94
T1034-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T1034-4				0.02	0.04	0.31	1.25	0.19	0.00	0.25	0.41	0.02	4.67
T1034-5				0.02	0.05	0.36	1.45	0.22	0.00	0.29	0.47	0.02	5.44

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F994

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T1309-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1033

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T1657-1				0.02	0.05	0.52	2.01	0.26	0.01	0.25	0.51	0.02	6.35
T1657-2				0.02	0.05	0.54	2.08	0.27	0.01	0.26	0.52	0.02	6.58
T1657-3				0.02	0.05	0.52	1.99	0.25	0.01	0.25	0.50	0.02	6.29

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1056

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T880-11				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1065

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T457-1				0.03	0.02	0.17	0.64	0.07	0.00	0.08	0.33	0.02	1.97
T457-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T457-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T457-4				0.03	0.02	0.19	0.68	0.09	0.00	0.11	0.39	0.01	2.17
T457-5				0.06	0.04	0.38	1.35	0.17	0.00	0.21	0.78	0.03	4.30
T457-6				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T457-7				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1078

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
T818-2				0.04	0.06	0.60	1.85	0.30	0.01	0.40	0.76	0.03	7.05
T818-3				0.08	0.08	0.69	2.13	0.34	0.01	0.48	1.05	0.04	8.12

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1080

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T867-1				0.05	0.07	0.73	2.20	0.35	0.01	0.48	0.93	0.03	8.44
T867-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T867-4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T867-5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T867-6				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T867-8				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T867-9				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1085

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T700-1				0.02	0.05	0.51	1.94	0.25	0.01	0.24	0.49	0.02	6.14
T921-2				0.02	0.05	0.51	1.95	0.25	0.01	0.24	0.49	0.02	6.15

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1151

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T1658-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T1658-2				0.05	0.09	0.90	3.18	0.44	0.01	0.51	1.04	0.04	10.84
T1658-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T1658-4				0.01	0.03	0.22	0.98	0.13	0.00	0.12	0.25	0.01	3.14
T1658-5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1316

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T2530-1				0.02	0.04	0.45	1.76	0.22	0.01	0.23	0.50	0.02	5.37
T2530-2				0.02	0.05	0.48	1.85	0.23	0.01	0.25	0.52	0.02	5.67
T2530-3				0.04	0.08	0.80	3.09	0.38	0.01	0.41	0.87	0.04	9.44

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1317

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T2531-1				0.02	0.03	0.32	1.25	0.16	0.00	0.17	0.35	0.01	3.81
T2531-2				0.02	0.03	0.34	1.31	0.16	0.00	0.17	0.37	0.02	4.02
T2531-3				0.02	0.03	0.34	1.34	0.17	0.00	0.18	0.38	0.02	4.09

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1488

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T2665-1				0.02	0.05	0.40	1.69	0.25	0.01	0.27	0.48	0.02	5.71

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1672

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T356-1				0.14	0.16	1.60	5.95	0.80	0.03	0.91	2.34	0.09	19.57
T356-2				0.14	0.14	1.32	4.82	0.66	0.03	0.77	2.22	0.08	16.11
T356-3				0.14	0.14	1.32	4.82	0.66	0.03	0.77	2.23	0.08	16.10
T356-4				0.11	0.11	1.08	3.94	0.54	0.02	0.63	1.75	0.06	13.24
T356-5				0.14	0.14	1.33	4.84	0.66	0.03	0.77	2.23	0.08	16.18

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1773

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T2905-1				0.04	0.09	0.74	2.94	0.45	0.01	0.57	0.94	0.04	10.72
T2905-2				0.03	0.08	0.65	2.57	0.40	0.01	0.49	0.82	0.03	9.34
T2905-3				0.04	0.09	0.72	2.86	0.44	0.01	0.55	0.92	0.04	10.45

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1777

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T2909-1				0.02	0.03	0.30	1.08	0.17	0.01	0.21	0.41	0.02	3.88
T2909-2				0.01	0.02	0.14	0.62	0.10	0.01	0.10	0.18	0.01	2.18
T2909-4				0.01	0.01	0.12	0.52	0.08	0.01	0.09	0.15	0.01	1.83

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F1878

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T1444-2				0.02	0.06	0.55	2.26	0.30	0.01	0.33	0.61	0.02	7.27
T2717-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T2717-11				0.04	0.10	1.00	3.92	0.54	0.03	0.58	1.08	0.05	13.08
T2717-2				0.04	0.10	0.91	3.72	0.51	0.03	0.55	1.02	0.04	12.32
T2717-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T2717-4				0.02	0.05	0.46	1.78	0.22	0.01	0.23	0.45	0.02	5.55
T2717-5				0.04	0.10	0.85	3.65	0.53	0.03	0.55	1.02	0.04	12.37
T2717-6				0.02	0.05	0.48	1.87	0.23	0.01	0.24	0.48	0.02	5.87
T2717-7				0.02	0.06	0.53	2.17	0.34	0.02	0.36	0.64	0.02	7.34
T2717-8				0.03	0.07	0.70	2.73	0.33	0.01	0.35	0.70	0.03	8.41

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F2080

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T354-2				0.02	0.06	0.55	2.17	0.28	0.01	0.30	0.60	0.02	6.73
T354-3				0.02	0.06	0.56	2.22	0.29	0.01	0.30	0.61	0.02	6.89
T66-1				0.03	0.07	0.70	2.88	0.38	0.01	0.40	0.78	0.03	8.96
T66-10				0.03	0.06	0.57	2.28	0.29	0.01	0.31	0.63	0.02	7.07
T66-11				0.02	0.06	0.57	2.24	0.29	0.01	0.31	0.62	0.02	6.97
T66-2				0.02	0.05	0.52	2.11	0.28	0.01	0.30	0.57	0.02	6.58
T66-3				0.02	0.06	0.54	2.20	0.29	0.01	0.31	0.60	0.02	6.84
T66-6				0.02	0.06	0.53	2.15	0.28	0.01	0.30	0.58	0.02	6.69
T66-8				0.05	0.09	0.89	3.22	0.45	0.01	0.53	1.05	0.04	10.83
T66-9				0.07	0.13	1.22	4.21	0.61	0.01	0.75	1.46	0.06	14.61

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F2146

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T633-7				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F7901

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T12340-1				0.05	0.08	0.79	2.39	0.38	0.01	0.53	1.01	0.04	9.15
T12340-2				0.05	0.08	0.77	2.32	0.37	0.01	0.51	0.98	0.04	8.89
T12340-3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T12340-4				0.01	0.02	0.21	0.64	0.10	0.00	0.14	0.27	0.01	2.45

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: F8058

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
T12504-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: FTHE1

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
THE1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: GY001

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
03				0.05	0.03	0.31	1.12	0.14	0.00	0.17	0.59	0.03	3.58
04				0.13	0.09	0.81	2.93	0.35	0.01	0.41	1.41	0.08	9.24
05				0.10	0.07	0.62	2.34	0.26	0.00	0.27	1.04	0.07	7.14
06				0.10	0.07	0.63	2.40	0.26	0.00	0.27	1.06	0.07	7.32

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: GY002

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.06	0.04	0.42	1.40	0.15	0.00	0.16	0.54	0.07	4.37
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08				0.06	0.04	0.40	1.35	0.15	0.00	0.15	0.52	0.07	4.24
09				0.06	0.04	0.40	1.35	0.14	0.00	0.15	0.52	0.07	4.22

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: GY004

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: GY005

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.09	0.06	0.58	1.96	0.21	0.00	0.22	0.76	0.10	6.14
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.06	0.04	0.42	1.40	0.15	0.00	0.16	0.54	0.07	4.37

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: GY006

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.07	0.05	0.46	1.55	0.17	0.00	0.17	0.60	0.08	4.86
02				0.08	0.06	0.54	1.81	0.19	0.00	0.20	0.70	0.09	5.67
03				0.09	0.06	0.57	1.92	0.20	0.00	0.22	0.72	0.10	6.03

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: GY007

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.08	0.06	0.53	1.78	0.19	0.00	0.20	0.67	0.09	5.61

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: GY008

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	12	6.46		0.07	0.07	0.56	1.81	0.30	0.00	0.18	0.57	0.12	5.86
02	7.5	4.11		0.04	0.04	0.36	1.15	0.20	0.00	0.11	0.36	0.07	3.72
03	7.6	4.64		0.05	0.05	0.40	1.30	0.22	0.00	0.13	0.41	0.08	4.20
04	14.6	4.66		0.05	0.05	0.40	1.31	0.22	0.00	0.13	0.41	0.08	4.22
05	8.5	6.53		0.07	0.07	0.57	1.83	0.31	0.00	0.18	0.57	0.11	5.91
06	21.9	6.35		0.06	0.07	0.55	1.78	0.30	0.00	0.18	0.56	0.11	5.75
07	10.1	4.28		0.04	0.05	0.37	1.20	0.20	0.00	0.12	0.37	0.08	3.88
08				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09	2.9	5.07		0.05	0.05	0.44	1.42	0.24	0.00	0.14	0.44	0.09	4.59
10	21.7	4.43		0.04	0.05	0.39	1.24	0.21	0.00	0.12	0.39	0.08	4.01
11	7.7	3.79		0.04	0.04	0.33	1.06	0.18	0.00	0.11	0.33	0.07	3.43

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: GY011

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	17.4	6.45		0.07	0.07	0.44	1.80	0.36	0.00	0.18	0.54	0.10	5.86
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03	17.4	5.08		0.05	0.06	0.35	1.42	0.28	0.00	0.14	0.42	0.08	4.61
04	32	6.48		0.07	0.07	0.45	1.81	0.36	0.00	0.18	0.54	0.10	5.89
05	55.9	4.44		0.05	0.05	0.36	1.24	0.22	0.00	0.12	0.38	0.07	4.02

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: GY012

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	32.4	3.99		0.04	0.04	0.27	1.12	0.22	0.00	0.11	0.33	0.06	3.63
02	14.2	4.51		0.05	0.05	0.31	1.26	0.25	0.00	0.12	0.37	0.07	4.10

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA001

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.05	0.10	0.93	3.34	0.51	0.02	0.58	1.11	0.04	11.55
02				0.03	0.07	0.63	2.52	0.37	0.02	0.38	0.72	0.03	8.33
03				0.07	0.09	0.90	3.53	0.48	0.02	0.49	1.17	0.06	11.37

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA004

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06				0.07	0.07	0.62	2.08	0.18	0.00	0.23	0.64	0.16	6.42
07				0.06	0.06	0.55	1.84	0.16	0.00	0.20	0.57	0.14	5.66
08				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09				0.08	0.08	0.52	2.07	0.22	0.00	0.27	0.71	0.18	6.34
10				0.08	0.07	0.46	1.84	0.19	0.00	0.24	0.64	0.16	5.65
11				0.08	0.08	0.68	2.24	0.20	0.00	0.25	0.70	0.17	6.92
12				0.05	0.05	0.45	1.48	0.13	0.00	0.16	0.47	0.11	4.57
13				0.05	0.05	0.41	1.46	0.14	0.00	0.17	0.47	0.12	4.48

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA005

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02	13.6	4.84		0.12	0.11	0.82	3.09	0.43	0.00	0.34	0.96	0.23	9.99

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA006

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02	6.1	3.00		0.09	0.09	0.64	2.31	0.30	0.00	0.26	0.73	0.18	7.42
03	12.1	2.89		0.08	0.08	0.60	2.19	0.28	0.00	0.25	0.70	0.17	7.03
04	8.7	5.32		0.11	0.11	0.76	2.92	0.41	0.00	0.32	0.90	0.21	9.49
05	24	5.08		0.09	0.09	0.64	2.55	0.36	0.00	0.29	0.78	0.18	8.29
06	27.8	5.33		0.10	0.10	0.72	2.81	0.39	0.00	0.32	0.87	0.20	9.11

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA007

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	12.5	4.31		0.12	0.11	0.88	3.23	0.41	0.00	0.34	1.03	0.18	10.34
02	14.5	4.32		0.12	0.11	0.89	3.27	0.42	0.00	0.35	1.04	0.19	10.47
03	22	3.27		0.09	0.08	0.63	2.34	0.30	0.00	0.25	0.74	0.13	7.49
04	33.4	3.02		0.09	0.08	0.65	2.37	0.30	0.00	0.25	0.74	0.14	7.57

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA012

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	31	4.97		0.08	0.09	0.69	2.58	0.34	0.00	0.28	0.76	0.17	8.37

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA013

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01	12.7	4.77		0.08	0.09	0.68	2.54	0.33	0.00	0.27	0.75	0.17	8.21

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA016

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	38	5.98		0.15	0.17	1.22	5.14	0.81	0.01	0.68	1.61	0.20	16.55
02	17	5.44		0.13	0.12	0.76	3.19	0.56	0.01	0.44	1.13	0.19	10.38
03	15	5.84		0.14	0.12	0.77	3.12	0.54	0.00	0.37	1.08	0.20	9.96
09	20	6.60		0.09	0.10	0.65	2.77	0.52	0.01	0.32	0.81	0.11	8.83
10	16.5	7.42		0.12	0.12	0.74	3.15	0.66	0.01	0.47	1.13	0.13	10.78
11	5	6.68		0.07	0.08	0.35	1.86	0.42	0.00	0.23	0.58	0.09	6.19
12	18	6.05		0.10	0.12	0.78	3.43	0.64	0.02	0.45	1.03	0.15	11.02
13	82	3.41		0.14	0.15	1.04	4.23	0.62	0.02	0.59	1.49	0.21	13.72
14	27	3.71		0.10	0.11	0.90	3.33	0.54	0.02	0.49	1.18	0.14	11.19
15	10	3.07		0.10	0.11	0.85	3.14	0.47	0.01	0.42	1.01	0.19	10.32
16	6	3.65		0.10	0.12	0.88	3.27	0.50	0.01	0.43	1.05	0.20	10.74
19	20	3.73		0.11	0.12	0.81	3.25	0.52	0.01	0.44	1.05	0.17	10.71

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA018

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02	38.9	5.70		0.06	0.07	0.41	1.77	0.32	0.00	0.17	0.49	0.09	5.82
03	26.8	3.16		0.07	0.08	0.59	2.17	0.26	0.00	0.23	0.65	0.15	6.89
04	5	2.79		0.06	0.07	0.58	1.98	0.24	0.00	0.21	0.58	0.14	6.27

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA019

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	24.4	6.72		0.06	0.07	0.42	1.89	0.35	0.00	0.18	0.51	0.09	6.25
02	16.3	6.09		0.05	0.06	0.36	1.71	0.31	0.00	0.17	0.48	0.08	5.69
03	27.7	6.21		0.05	0.06	0.37	1.74	0.31	0.00	0.17	0.49	0.08	5.80
04	14.9	6.11		0.05	0.06	0.36	1.72	0.31	0.00	0.17	0.48	0.08	5.70
05	14.5	5.64		0.05	0.06	0.33	1.59	0.28	0.00	0.16	0.45	0.08	5.27

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA024

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	90.8	5.02		0.10	0.10	0.75	2.87	0.40	0.00	0.30	0.89	0.16	9.24

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA025

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	68.5	3.16		0.11	0.11	0.96	3.63	0.47	0.01	0.42	1.12	0.14	11.48
02				0.06	0.04	0.39	1.32	0.14	0.00	0.15	0.49	0.07	4.16

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA026

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	42.4	4.92		0.08	0.09	0.69	2.56	0.35	0.00	0.27	0.76	0.17	8.23
02	26	4.81		0.08	0.09	0.70	2.53	0.34	0.00	0.26	0.75	0.17	8.15
03	25.9	3.71		0.07	0.07	0.58	2.08	0.27	0.00	0.22	0.62	0.14	6.70
04	36.3	3.32		0.03	0.04	0.21	0.96	0.17	0.00	0.10	0.27	0.05	3.19
05	29.4	3.25		0.06	0.07	0.52	1.84	0.24	0.00	0.19	0.55	0.13	5.91
06	14.7	4.73		0.07	0.07	0.54	2.07	0.30	0.00	0.21	0.61	0.13	6.72

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA028

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.02	0.02	0.15	0.49	0.05	0.00	0.05	0.16	0.03	1.53
03				0.05	0.04	0.38	1.27	0.11	0.00	0.14	0.41	0.09	3.94
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA031

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	22.2	6.32		0.06	0.07	0.37	1.78	0.32	0.00	0.18	0.50	0.09	5.90
02	8.5	6.21		0.05	0.06	0.37	1.74	0.31	0.00	0.17	0.49	0.08	5.80
03	12.9	6.55		0.06	0.07	0.39	1.84	0.33	0.00	0.18	0.52	0.09	6.12

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA032

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01	19.8	4.75		0.12	0.12	0.89	3.26	0.44	0.00	0.36	1.03	0.25	10.42
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA033

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.02	0.02	0.19	0.61	0.06	0.00	0.07	0.21	0.04	1.90
02				0.04	0.03	0.29	0.92	0.09	0.00	0.10	0.32	0.06	2.89
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA034

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	99.3	2.16		0.02	0.02	0.13	0.61	0.12	0.00	0.06	0.17	0.03	1.97

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA037

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	23	3.93		0.03	0.04	0.23	1.10	0.20	0.00	0.11	0.31	0.05	3.67
02	20.3	0.93		0.01	0.01	0.05	0.26	0.05	0.00	0.03	0.07	0.01	0.87

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA043

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01	30.8	7.34		0.06	0.08	0.42	2.05	0.35	0.00	0.22	0.57	0.10	6.96
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA044

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	13.8	6.77		0.07	0.08	0.35	1.88	0.42	0.00	0.23	0.59	0.10	6.27
02	8.3	6.80		0.07	0.08	0.35	1.89	0.43	0.00	0.23	0.59	0.10	6.30
03	10.6	6.94		0.07	0.08	0.36	1.93	0.43	0.00	0.24	0.60	0.10	6.43
04	5.8	6.69		0.07	0.08	0.35	1.86	0.42	0.00	0.23	0.58	0.09	6.19
05	10.5	6.00		0.06	0.07	0.31	1.67	0.38	0.00	0.21	0.52	0.09	5.56

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA045

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR001

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
05				0.11	0.15	1.32	5.17	0.67	0.01	0.76	1.72	0.10	17.08
06				0.11	0.15	1.33	5.18	0.67	0.01	0.75	1.72	0.10	17.11
07				0.04	0.10	0.90	3.54	0.50	0.01	0.57	1.02	0.04	12.18
08				0.04	0.08	0.70	2.36	0.38	0.01	0.50	0.89	0.03	8.93
09				0.04	0.07	0.62	2.21	0.35	0.01	0.46	0.80	0.03	8.33
10				0.17	0.15	1.29	4.41	0.59	0.01	0.57	1.62	0.25	14.34

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR003

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.06	0.08	0.83	3.13	0.37	0.01	0.38	0.94	0.06	9.73
02				0.08	0.11	0.89	3.76	0.48	0.01	0.48	1.08	0.10	12.01
03				0.08	0.11	0.91	3.77	0.48	0.01	0.48	1.10	0.10	12.02
04				0.08	0.11	0.90	3.73	0.47	0.01	0.47	1.09	0.10	11.90
05				0.07	0.11	0.84	3.47	0.44	0.01	0.44	1.02	0.10	11.09
06				0.08	0.11	1.03	3.98	0.48	0.01	0.48	1.18	0.08	12.47
07				0.07	0.10	0.96	3.74	0.45	0.01	0.46	1.08	0.07	11.74
08				0.07	0.11	0.95	3.69	0.46	0.01	0.47	1.06	0.10	11.67

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR004

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.09	0.12	1.13	4.22	0.50	0.01	0.50	1.29	0.09	13.16
02				0.09	0.12	1.13	4.24	0.50	0.01	0.51	1.29	0.09	13.24
03				0.04	0.03	0.29	1.03	0.11	0.00	0.11	0.41	0.04	3.15

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR005

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	112.5	7.43		0.14	0.13	1.13	4.03	0.55	0.01	0.43	1.37	0.19	12.71
02	37.5	4.66		0.13	0.10	0.90	3.16	0.38	0.00	0.33	1.18	0.16	9.83
03	79	5.98		0.19	0.20	1.72	6.58	0.83	0.01	0.73	2.18	0.22	20.68
04	83.1	5.09		0.14	0.16	1.41	5.37	0.68	0.01	0.61	1.70	0.19	17.00
05	68.8	4.99		0.15	0.17	1.48	5.72	0.73	0.01	0.65	1.80	0.19	18.08

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR008

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.01	0.01	0.08	0.55	0.09	0.00	0.09	0.16	0.01	8.64
02				0.01	0.01	0.08	0.55	0.09	0.00	0.09	0.16	0.01	8.64
03				0.01	0.01	0.08	0.55	0.09	0.00	0.09	0.16	0.01	8.64
04				0.01	0.01	0.08	0.55	0.09	0.00	0.09	0.16	0.01	8.64
05				0.01	0.01	0.08	0.55	0.09	0.00	0.09	0.16	0.01	8.64
06				0.01	0.01	0.08	0.55	0.09	0.00	0.09	0.16	0.01	8.64
07				0.01	0.01	0.08	0.55	0.09	0.00	0.09	0.16	0.01	8.64
08				0.01	0.01	0.08	0.55	0.09	0.00	0.09	0.16	0.01	8.64
09				0.01	0.01	0.08	0.55	0.09	0.00	0.09	0.16	0.01	8.64
10				0.01	0.01	0.08	0.55	0.09	0.00	0.09	0.16	0.01	8.64

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR009

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.10	0.13	1.14	4.36	0.57	0.01	0.55	1.25	0.18	13.39
02				0.07	0.09	0.81	3.19	0.42	0.01	0.41	0.92	0.13	9.70
03				0.10	0.13	1.14	4.35	0.57	0.01	0.55	1.25	0.18	13.36
04				0.13	0.16	1.42	5.24	0.68	0.01	0.65	1.54	0.26	16.14
05				0.09	0.12	1.04	4.01	0.53	0.01	0.51	1.15	0.16	12.29
06				0.11	0.14	1.22	4.62	0.60	0.01	0.58	1.33	0.20	14.19
07				0.11	0.14	1.27	4.79	0.63	0.01	0.60	1.39	0.22	14.73
08				0.11	0.13	1.11	4.18	0.55	0.01	0.53	1.23	0.21	12.80

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR011

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.14	0.11	0.98	3.32	0.38	0.00	0.36	1.23	0.20	10.26
02				0.14	0.10	0.94	3.19	0.37	0.00	0.34	1.18	0.19	9.85
03				0.06	0.05	0.44	1.40	0.19	0.00	0.16	0.47	0.13	4.37
04				0.06	0.05	0.43	1.36	0.18	0.00	0.15	0.45	0.12	4.26
05				0.06	0.05	0.42	1.32	0.18	0.00	0.15	0.44	0.12	4.11
06				0.08	0.07	0.64	2.01	0.26	0.00	0.20	0.63	0.16	6.45
07				0.06	0.05	0.46	1.44	0.19	0.00	0.15	0.45	0.12	4.65
08				0.20	0.12	0.94	3.83	0.48	0.01	0.48	1.90	0.14	11.54
09				0.05	0.05	0.45	1.45	0.21	0.00	0.15	0.45	0.10	4.69
10				0.05	0.05	0.45	1.46	0.21	0.00	0.15	0.46	0.10	4.71
11				0.10	0.08	0.71	2.39	0.32	0.00	0.26	0.88	0.14	7.57
12	54.1	1.77		0.21	0.15	1.35	4.66	0.60	0.00	0.53	1.95	0.21	14.58
13				0.07	0.07	0.62	2.00	0.29	0.00	0.20	0.63	0.14	6.48
14				0.05	0.05	0.45	1.45	0.21	0.00	0.15	0.45	0.10	4.68
15				0.05	0.05	0.45	1.45	0.21	0.00	0.15	0.46	0.10	4.70
16				0.19	0.11	1.07	3.89	0.47	0.01	0.46	1.84	0.13	11.94

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR012

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.06	0.05	0.44	1.38	0.18	0.00	0.15	0.46	0.12	4.31
02				0.08	0.07	0.60	1.88	0.25	0.00	0.21	0.63	0.17	5.88
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.13	0.11	0.94	3.09	0.36	0.00	0.35	1.12	0.21	9.66
07				0.10	0.08	0.71	2.35	0.27	0.00	0.26	0.86	0.16	7.34

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR013

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.06	0.05	0.45	1.43	0.18	0.00	0.16	0.48	0.13	4.48

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR014

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.08	0.07	0.61	1.94	0.24	0.00	0.22	0.65	0.18	6.07
02				0.08	0.07	0.63	1.99	0.25	0.00	0.22	0.67	0.18	6.23

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR015

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.08	0.07	0.57	1.82	0.23	0.00	0.20	0.61	0.17	5.70

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR016

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.08	0.07	0.60	1.91	0.24	0.00	0.22	0.64	0.18	6.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR017

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.03	0.07	0.64	2.66	0.35	0.01	0.33	0.68	0.03	8.51
02				0.14	0.13	1.12	4.16	0.52	0.01	0.60	1.78	0.13	13.31
03				0.16	0.15	1.25	4.63	0.58	0.01	0.66	1.96	0.16	14.78

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR018

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.01	0.04	0.32	1.38	0.18	0.00	0.17	0.35	0.01	4.42
02				0.02	0.04	0.36	1.58	0.21	0.00	0.20	0.40	0.02	5.06
03				0.03	0.07	0.57	2.47	0.32	0.01	0.31	0.63	0.03	7.92
04				0.00	0.01	0.07	0.30	0.04	0.00	0.04	0.08	0.00	0.96
T637-1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-10				0.02	0.04	0.36	1.58	0.21	0.00	0.20	0.40	0.02	5.06
T637-11				0.03	0.07	0.57	2.47	0.32	0.01	0.31	0.63	0.03	7.92
T637-12				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-13				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-14				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-16				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-17				0.00	0.01	0.07	0.30	0.04	0.00	0.04	0.08	0.00	0.96
T637-2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-3				0.01	0.03	0.26	1.13	0.15	0.00	0.14	0.29	0.01	3.60
T637-4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-6				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-7				0.01	0.04	0.32	1.38	0.18	0.00	0.17	0.35	0.01	4.42
T637-8				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T637-9				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR019

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.06	0.05	0.43	1.37	0.17	0.00	0.15	0.46	0.13	4.28
02				0.05	0.05	0.40	1.28	0.16	0.00	0.14	0.43	0.12	4.01

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR020

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.08	0.07	0.61	1.93	0.24	0.00	0.22	0.65	0.18	6.05
05				0.08	0.07	0.59	1.86	0.23	0.00	0.21	0.62	0.17	5.83
06				0.08	0.07	0.60	1.90	0.24	0.00	0.21	0.64	0.18	5.95
07				0.08	0.07	0.60	1.91	0.24	0.00	0.22	0.64	0.18	5.99

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR021

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.08	0.07	0.61	1.94	0.24	0.00	0.22	0.65	0.18	6.09
02				0.08	0.07	0.63	1.99	0.25	0.00	0.22	0.67	0.18	6.24
03				0.06	0.06	0.47	1.48	0.18	0.00	0.17	0.50	0.14	4.63

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR022

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.01	0.01	0.12	0.39	0.07	0.00	0.06	0.11	0.01	1.28

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR023

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.10	0.09	0.70	2.31	0.33	0.00	0.26	0.77	0.20	7.32
02				0.09	0.08	0.72	2.24	0.29	0.00	0.23	0.70	0.18	7.19
03				0.10	0.09	0.70	2.37	0.34	0.00	0.26	0.79	0.20	7.54
04				0.10	0.09	0.80	2.49	0.33	0.00	0.25	0.78	0.20	8.00
05				0.08	0.07	0.55	1.84	0.27	0.00	0.20	0.61	0.16	5.88
06				0.07	0.07	0.59	1.84	0.24	0.00	0.19	0.58	0.15	5.90
07				0.08	0.07	0.64	2.01	0.26	0.00	0.20	0.63	0.16	6.47
08				0.06	0.05	0.47	1.46	0.19	0.00	0.15	0.46	0.12	4.69
09				0.06	0.06	0.50	1.55	0.20	0.00	0.16	0.49	0.13	4.98
10				0.06	0.05	0.48	1.49	0.20	0.00	0.15	0.47	0.12	4.79
11				0.06	0.05	0.40	1.33	0.19	0.00	0.15	0.44	0.12	4.25
12				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13				0.06	0.05	0.39	1.31	0.19	0.00	0.15	0.44	0.11	4.18
14				0.07	0.06	0.55	1.71	0.22	0.00	0.17	0.54	0.14	5.51
15				0.10	0.08	0.66	2.23	0.32	0.00	0.25	0.74	0.19	7.11

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR024

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.09	0.09	0.76	2.41	0.33	0.00	0.25	0.76	0.19	7.81
02				0.10	0.09	0.80	2.54	0.35	0.00	0.26	0.80	0.20	8.23
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.10	0.09	0.81	2.57	0.35	0.00	0.27	0.81	0.20	8.33
06				0.06	0.06	0.50	1.58	0.21	0.00	0.16	0.50	0.12	5.11
07				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR027

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.08	0.07	0.57	1.81	0.24	0.00	0.20	0.60	0.16	5.66
02				0.08	0.07	0.59	1.87	0.25	0.00	0.21	0.62	0.17	5.83
03				0.08	0.07	0.56	1.77	0.24	0.00	0.20	0.59	0.16	5.52
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR028

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.05	0.05	0.42	1.34	0.19	0.00	0.14	0.42	0.10	4.33

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MS001

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	30.2	1.37		0.09	0.09	0.69	2.31	0.27	0.00	0.27	0.77	0.20	7.24
02	18.9	4.67		0.13	0.12	0.97	3.21	0.44	0.00	0.35	1.04	0.26	10.15
03	13	5.05		0.11	0.11	0.80	2.86	0.43	0.00	0.31	0.90	0.21	9.12
04	37.5	4.58		0.13	0.12	0.88	3.19	0.47	0.00	0.35	1.01	0.25	10.12
05	11.7	4.75		0.13	0.12	0.88	3.21	0.47	0.00	0.35	1.01	0.25	10.18
06	3	4.81		0.10	0.10	0.83	2.65	0.37	0.00	0.29	0.86	0.21	8.40

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MS002

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.02	0.02	0.19	0.62	0.05	0.00	0.07	0.19	0.05	1.90
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.05	0.05	0.43	1.38	0.11	0.00	0.15	0.43	0.12	4.25
04				0.08	0.08	0.62	2.22	0.18	0.00	0.24	0.68	0.18	6.82
05				0.04	0.04	0.39	1.29	0.10	0.00	0.14	0.40	0.11	3.95

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MS003

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.04	0.04	0.35	1.12	0.09	0.00	0.12	0.35	0.09	3.45

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MS006

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	11.5	3.69		0.09	0.09	0.69	2.50	0.35	0.00	0.27	0.78	0.19	7.97
02	20.3	4.95		0.04	0.05	0.31	1.40	0.26	0.00	0.13	0.38	0.07	4.60
03	7.7	4.60		0.12	0.12	0.92	3.29	0.45	0.00	0.36	1.03	0.25	10.49
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05	40.2	4.99		0.13	0.13	0.97	3.48	0.48	0.00	0.38	1.08	0.26	11.09
06	13	3.29		0.09	0.09	0.65	2.34	0.32	0.00	0.25	0.73	0.18	7.46
07	11.6	4.97		0.12	0.12	0.90	3.27	0.46	0.00	0.35	1.01	0.24	10.43

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MS007

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01	53.9	3.79		0.04	0.04	0.21	1.07	0.25	0.00	0.12	0.31	0.06	3.44
02	20.7	4.02		0.04	0.04	0.24	1.13	0.24	0.00	0.12	0.32	0.06	3.66
03	39.5	4.25		0.04	0.05	0.26	1.19	0.24	0.00	0.12	0.34	0.06	3.88
04	17.5	4.03		0.04	0.04	0.25	1.13	0.23	0.00	0.11	0.32	0.06	3.68
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08	21.7	5.84		0.06	0.06	0.36	1.64	0.34	0.00	0.16	0.46	0.09	5.34
09	12.5	5.75		0.06	0.06	0.34	1.62	0.35	0.00	0.17	0.46	0.09	5.25
10	3.4	5.20		0.05	0.06	0.32	1.46	0.30	0.00	0.15	0.41	0.08	4.75

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH001

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH003

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02	30.7	4.55		0.10	0.11	0.96	2.93	0.35	0.00	0.31	0.92	0.23	9.25
03	23.2	4.85		0.05	0.05	0.33	1.36	0.27	0.00	0.14	0.39	0.07	4.43
04	12	6.21		0.06	0.07	0.38	1.74	0.36	0.00	0.17	0.49	0.09	5.68
05	17.3	6.26		0.06	0.07	0.39	1.75	0.36	0.00	0.18	0.50	0.09	5.72
06	16.1	4.84		0.11	0.10	0.86	2.75	0.37	0.00	0.30	0.90	0.22	8.69
07				0.08	0.07	0.59	1.90	0.18	0.00	0.23	0.65	0.18	5.89

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH004

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	28.4	5.97		0.12	0.12	1.01	3.42	0.45	0.00	0.36	1.04	0.24	10.93
02	40.3	10.86		0.18	0.19	1.40	5.22	0.72	0.01	0.56	1.54	0.34	17.01
03	62.8	9.07		0.16	0.17	1.30	4.68	0.63	0.01	0.50	1.39	0.32	15.16
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH005

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01	15.5	4.54		0.04	0.05	0.26	1.27	0.22	0.00	0.14	0.35	0.06	4.30
02	11.3	6.51		0.06	0.07	0.37	1.82	0.31	0.00	0.20	0.51	0.08	6.17
03	11.6	6.22		0.06	0.06	0.36	1.74	0.30	0.00	0.19	0.49	0.08	5.90
04	15.8	3.51		0.03	0.04	0.20	0.98	0.17	0.00	0.11	0.27	0.05	3.33
05	16.4	2.34		0.02	0.02	0.13	0.65	0.11	0.00	0.07	0.18	0.03	2.21
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH006

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	7.1	7.75		0.07	0.08	0.45	2.16	0.36	0.00	0.24	0.60	0.10	7.46
02	12.9	6.15		0.06	0.06	0.36	1.72	0.29	0.00	0.19	0.47	0.08	5.92
03	15.7	8.21		0.07	0.08	0.48	2.29	0.38	0.00	0.25	0.63	0.11	7.90
04	16.2	7.23		0.07	0.07	0.42	2.02	0.34	0.00	0.22	0.56	0.09	6.96
05	15.8	6.30		0.06	0.06	0.37	1.76	0.29	0.00	0.19	0.49	0.08	6.06

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH007

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01	7.6	6.94		0.06	0.07	0.40	1.94	0.34	0.00	0.20	0.54	0.09	6.53
02	5.9	4.53		0.04	0.05	0.26	1.26	0.22	0.00	0.13	0.35	0.06	4.26
03	13.1	4.89		0.04	0.05	0.28	1.36	0.24	0.00	0.14	0.38	0.06	4.59
04	12.8	7.25		0.06	0.07	0.41	2.02	0.35	0.00	0.21	0.56	0.10	6.81
05	13.7	10.22		0.09	0.11	0.58	2.85	0.49	0.00	0.30	0.80	0.13	9.61
06	16.1	8.91		0.08	0.09	0.51	2.49	0.43	0.00	0.26	0.69	0.12	8.39
07				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08	7.2	10.09		0.09	0.10	0.57	2.82	0.49	0.00	0.30	0.78	0.13	9.49
09	10.4	10.50		0.09	0.11	0.60	2.93	0.51	0.01	0.31	0.82	0.14	9.89
10	4	6.58		0.06	0.07	0.38	1.84	0.31	0.00	0.20	0.51	0.09	6.23
11	15.6	8.09		0.07	0.08	0.46	2.26	0.39	0.00	0.24	0.63	0.11	7.67
12				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH008

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH009

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	14.2	8.27		0.07	0.08	0.48	2.31	0.39	0.00	0.25	0.64	0.11	7.96
02	11.5	6.33		0.06	0.06	0.37	1.77	0.30	0.00	0.19	0.49	0.08	6.09
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH011

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01	18.6	3.27		0.03	0.04	0.18	0.91	0.17	0.00	0.10	0.26	0.04	3.08
02	14.8	4.14		0.04	0.04	0.24	1.16	0.20	0.00	0.13	0.32	0.05	3.98
03	18.4	6.35		0.07	0.07	0.34	1.76	0.39	0.00	0.22	0.54	0.09	5.95
04	20.8	6.40		0.07	0.07	0.34	1.77	0.40	0.00	0.22	0.55	0.09	5.99

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH012

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
07				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
08				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH013

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	34.8	7.72		0.07	0.08	0.44	2.15	0.37	0.00	0.23	0.60	0.10	7.32
02	20.3	8.06		0.07	0.08	0.46	2.25	0.38	0.00	0.24	0.63	0.10	7.64
03	28.7	7.92		0.07	0.08	0.46	2.21	0.38	0.00	0.24	0.62	0.10	7.51

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH014

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01	3.4	5.14		0.05	0.05	0.30	1.43	0.25	0.00	0.16	0.40	0.07	4.87
02	23.9	5.90		0.05	0.06	0.34	1.65	0.28	0.00	0.18	0.46	0.08	5.59
03	1.5	6.02		0.05	0.06	0.35	1.68	0.29	0.00	0.18	0.47	0.08	5.71
04	27.2	8.09		0.07	0.08	0.46	2.26	0.39	0.00	0.25	0.63	0.11	7.67
05	2.8	5.97		0.05	0.06	0.34	1.67	0.29	0.00	0.18	0.47	0.08	5.66
06	12.4	7.28		0.06	0.08	0.42	2.03	0.35	0.00	0.22	0.57	0.09	6.90
07	8.6	6.38		0.06	0.07	0.37	1.78	0.30	0.00	0.19	0.50	0.08	6.05
08	34.8	8.01		0.07	0.08	0.46	2.24	0.39	0.00	0.23	0.62	0.11	7.53
09	23.1	7.95		0.07	0.08	0.45	2.22	0.38	0.00	0.23	0.62	0.10	7.47
10	33.6	4.71		0.04	0.05	0.27	1.32	0.22	0.00	0.14	0.37	0.06	4.47
11	21	4.27		0.04	0.04	0.25	1.19	0.20	0.00	0.13	0.33	0.06	4.05

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: SE002

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.13	0.11	1.05	4.13	0.48	0.01	0.49	1.54	0.10	12.60
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: SE004

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.04	0.08	0.84	3.29	0.52	0.02	0.54	0.93	0.04	10.92
02				0.05	0.10	0.99	3.83	0.60	0.03	0.63	1.10	0.05	12.73
03				0.04	0.08	0.80	3.21	0.51	0.02	0.53	0.91	0.04	10.75
04				0.04	0.09	0.91	3.66	0.58	0.03	0.61	1.04	0.04	12.39
05				0.04	0.09	0.87	3.52	0.55	0.03	0.59	1.00	0.04	11.86
06				0.04	0.08	0.84	3.30	0.52	0.03	0.55	0.94	0.04	11.22

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: SE006

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.08	0.07	0.60	1.91	0.19	0.00	0.23	0.66	0.19	5.91
02				0.08	0.07	0.62	1.98	0.19	0.00	0.24	0.68	0.19	6.14

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: SE011

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03	14.1	7.20		0.07	0.08	0.50	2.01	0.40	0.00	0.20	0.60	0.11	6.54
04	9	6.86		0.07	0.07	0.47	1.92	0.38	0.00	0.19	0.57	0.10	6.23
05	28.6	6.47		0.07	0.07	0.45	1.81	0.36	0.00	0.18	0.54	0.10	5.88
06				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: SE012

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01	33.1	4.95		0.12	0.12	0.97	3.11	0.46	0.00	0.39	1.85	0.35	9.60
02	45.1	4.95		0.12	0.12	0.96	3.10	0.43	0.00	0.39	1.84	0.36	9.58
03	119.2	3.29		0.10	0.10	0.83	2.64	0.37	0.00	0.34	1.69	0.32	8.10
04	112.5	3.39		0.10	0.10	0.83	2.61	0.37	0.00	0.33	1.68	0.32	8.03
05	12.8	2.49		0.09	0.09	0.78	2.43	0.30	0.00	0.31	1.61	0.31	7.44
06	6.5	2.29		0.09	0.08	0.75	2.32	0.28	0.00	0.30	1.57	0.30	7.10

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: SE013

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	39.5	2.75		0.09	0.09	0.84	2.55	0.28	0.00	0.27	0.80	0.21	7.99
02	42.5	2.80		0.09	0.09	0.86	2.59	0.26	0.00	0.28	0.81	0.22	8.13
03	17.1	3.08		0.07	0.08	0.70	2.14	0.25	0.00	0.23	0.67	0.17	6.73
04	30.1	3.41		0.07	0.07	0.67	2.06	0.25	0.00	0.22	0.64	0.16	6.49

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: SE014

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.13	0.09	0.86	3.03	0.38	0.01	0.47	1.75	0.06	9.65
02				0.12	0.13	1.26	4.64	0.58	0.01	0.66	1.96	0.07	14.47
03				0.13	0.09	0.89	3.10	0.39	0.01	0.48	1.80	0.06	9.89
04				0.12	0.13	1.28	4.72	0.59	0.01	0.67	1.96	0.07	14.72

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: SE016

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
01				0.10	0.17	1.68	6.37	0.80	0.02	0.85	1.88	0.10	19.54
02				0.09	0.19	1.87	7.25	0.96	0.03	1.02	2.07	0.08	22.85
03				0.09	0.15	1.36	5.27	0.70	0.03	0.75	1.61	0.10	17.11
04				0.07	0.13	1.21	4.78	0.65	0.03	0.70	1.42	0.07	15.55
T541-1				0.05	0.11	1.06	4.08	0.52	0.01	0.55	1.16	0.05	12.50
T541-3				0.04	0.08	0.80	3.09	0.40	0.01	0.42	0.88	0.04	9.48
T541-4				0.02	0.05	0.43	1.79	0.28	0.02	0.30	0.53	0.02	6.36
T541-5				0.05	0.12	1.07	4.31	0.60	0.03	0.65	1.24	0.05	14.08
T541-7				0.04	0.09	0.90	3.48	0.44	0.01	0.47	0.99	0.04	10.62

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: SE018

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
01	11.7	6.80		0.07	0.07	0.47	1.90	0.38	0.00	0.19	0.57	0.10	6.17
02	12.6	5.07		0.05	0.05	0.35	1.42	0.28	0.00	0.14	0.42	0.08	4.60
03				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: THE1

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
HE1-2-1				0.01	0.01	0.17	0.54	0.09	0.00	0.09	0.16	0.01	1.68

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: TJL2

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
TJL2-1				0.00	0.00	0.04	0.15	0.02	0.00	0.03	0.04	0.00	0.55
TJL2-2				0.00	0.01	0.09	0.35	0.05	0.00	0.06	0.10	0.00	1.25

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: TMB1

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A	Limit (lbs/A)	As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
				36	34	--	1320	264	15	--	370	88	2464
TMB1-1				0.02	0.04	0.33	1.40	0.22	0.01	0.23	0.41	0.02	4.75
TMB1-2				0.02	0.04	0.36	1.52	0.23	0.02	0.25	0.45	0.02	5.17
TMB1-3				0.03	0.08	0.68	2.90	0.41	0.02	0.41	0.79	0.03	9.51
TMB1-4				0.10	0.14	1.26	4.72	0.69	0.02	0.80	1.71	0.07	16.32
TMB1-5				0.21	0.21	1.89	7.14	0.98	0.03	1.11	2.87	0.12	23.85
TMB1-6				0.04	0.08	0.66	2.65	0.39	0.02	0.44	0.86	0.03	9.10

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: TPC1

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
TPC1-1				0.03	0.03	0.29	1.07	0.14	0.00	0.17	0.42	0.02	3.54

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: TPT1

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
TPT1-1				0.00	0.00	0.04	0.16	0.02	0.00	0.03	0.05	0.00	0.53

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: TWS2

Calendar Year: 2012

Field	Acres	Appl. Rate DT/A		As (lb/A)	Cd (lb/A)	Cr (lb/A)	Cu (lb/A)	Pb (lb/A)	Hg (lb/A)	Mo (lb/A)	Ni (lb/A)	Se (lb/A)	Zn (lb/A)
			Limit (lbs/A)	36	34	--	1320	264	15	--	370	88	2464
TWS2-1				0.02	0.04	0.44	1.70	0.25	0.01	0.25	0.48	0.02	5.49

APPENDIX C
503 INORGANIC ANALYSIS
FOR
2012 LAND APPLICATION

40CFR ANNUAL SLUDGE REPORT
MOCCASIN BEND WWTP
CHATTANOOGA, TN
NPDES PERMIT NO. TN0024210

Biosolids Characteristics

Source: Chattanooga **1/3/2012** through **12/31/2012**

Sample ID Report Date Date Sampled Lab ID Date Received County	Avg. of 52 most recent non-null records:	Min. of all in selected range	Max. of all in selected range	12121077-001 12/31/2012 12/31/2012 CENTRIFUGE CAKE 503	12120845-001 12/24/2012 12/24/2012 CENTRIFUGE CAKE 503	12120595-001 12/17/2012 12/17/2012 CENTRIFUGE CAKE 503
pH	12.27	11.9	12.7	12.3	12.5	11.9
Solids (%)	37.42%	28.10%	49.90%	33.00%	36.60%	34.70%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.31%	2.17%	5.05%	3.79%	3.40%	3.84%
Organic N	3.15%	2.05%	4.85%	3.64%	3.26%	3.65%
Ammonia N	0.16%	0.02%	0.49%	0.15%	0.14%	0.19%
Total Phosphorus (P)	6.73%	3.60%	11.70%	9.48%	6.50%	7.14%
Potassium (K)	0.28%	0.17%	0.44%	0.25%	0.24%	0.27%
Other Nutr. (% dw)						
Calcium (Ca)	12.54%	7.45%	15.75%	13.33%	12.24%	15.27%
Iron (Fe)	0.62%	0.46%	0.94%	0.60%	0.53%	0.57%
Boron (B)	0.00%	0.00%	0.00%			
Sulfur (S)	0.69%	0.30%	1.62%			
Reg'd Metals (mg/kg)						
Manganese (Mn)	248.19	128.36	337.23	246.06	213.11	235.73
Arsenic (As)	5.88	3.64	15.29	6.67	7.10	6.92
Cadmium (Cd)	5.35	3.45	7.26	4.85	4.37	5.19
Chromium (Cr)	26.36	14.87	41.36	20.61	20.22	17.87
Copper (Cu)	139.94	87.53	303.68	131.52	121.86	167.15
Lead (Pb)	31.19	13.95	50.76	46.06	37.70	34.01
Mercury (Hg)	0.28	0.10	0.81	0.18	0.22	0.23
Molybdenum (Mo)	19.96	10.72	32.28	16.97	16.94	23.05
Nickel (Ni)	56.47	25.37	211.38	48.48	69.40	86.46
Selenium (Se)	6.12	2.33	12.35	6.06	4.92	4.03
Zinc (Zn)	497.07	405.47	681.56	543.64	462.84	541.21
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/3/2012** through **12/31/2012**

Sample ID	12120340-001	12120078-001	11120841-001	11120614-001	11120370-001	11120132-001
Report Date	12/10/2012	12/3/2012	11/26/2012	11/19/2012	11/12/2012	11/5/2012
Date Sampled	12/10/2012	12/3/2012	11/26/2012	11/19/2012	11/12/2012	11/5/2012
Lab ID	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503
Date Received						
County						
pH	12.4	12.6	12.3	12.5	12.5	12.4
Solids (%)	34.10%	35.70%	35.20%	34.70%	34.80%	40.00%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.89%	3.38%	3.56%	3.52%	3.33%	2.59%
Organic N	3.65%	3.29%	3.44%	3.33%	3.17%	2.49%
Ammonia N	0.24%	0.09%	0.12%	0.18%	0.16%	0.10%
Total Phosphorus (P)	7.25%	8.38%	8.62%	7.80%	7.63%	6.49%
Potassium (K)	0.30%	0.23%	0.23%	0.24%	0.26%	0.24%
Other Nutr. (% dw)						
Calcium (Ca)	15.01%	14.57%	11.76%	11.59%	12.18%	12.65%
Iron (Fe)	0.52%	0.52%	0.52%	0.65%	0.60%	0.56%
Boron (B)	0.00%				0.00%	
Sulfur (S)	0.58%				0.30%	
Reg'd Metals (mg/kg)						
Manganese (Mn)	247.51	214.57	235.80	265.71	268.39	258.50
Arsenic (As)	5.87	6.16	5.11	6.34	5.75	4.50
Cadmium (Cd)	5.87	5.04	5.68	4.61	5.17	5.00
Chromium (Cr)	22.87	25.77	21.02	19.60	23.56	22.00
Copper (Cu)	132.55	158.54	114.77	153.31	118.97	140.50
Lead (Pb)	32.26	34.73	22.73	27.09	22.41	24.50
Mercury (Hg)	0.29	0.22	0.34	0.29	0.34	0.25
Molybdenum (Mo)	24.63	30.25	27.27	32.28	25.29	20.00
Nickel (Ni)	35.19	146.22	34.09	34.58	40.80	156.00
Selenium (Se)	4.69	7.28	3.98	8.07	4.60	3.50
Zinc (Zn)	523.75	542.30	499.43	610.95	520.69	456.50
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/3/2012** through **12/31/2012**

Sample ID	10121037-001	10120834-001	10120573-001	10120317-001	10120032-001	09120769-001
Report Date	10/29/2012	10/22/2012	10/15/2012	10/8/2012	10/1/2012	9/24/2012
Date Sampled	10/29/2012	10/22/2012	10/15/2012	10/8/2012	10/1/2012	9/24/2012
Lab ID	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503
Date Received						
County						
pH	12.7	12.2	12.5	12.4	12.4	12.3
Solids (%)	40.90%	33.40%	34.90%	39.00%	38.00%	37.60%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	2.68%	3.93%	3.31%	2.70%	2.68%	2.79%
Organic N	2.55%	3.79%	3.20%	2.56%	2.55%	2.66%
Ammonia N	0.13%	0.15%	0.12%	0.14%	0.13%	0.13%
Total Phosphorus (P)	8.35%	6.76%	4.76%	8.52%	7.45%	7.08%
Potassium (K)	0.21%	0.24%	0.23%	0.21%	0.23%	0.20%
Other Nutr. (% dw)						
Calcium (Ca)	12.08%	15.75%	15.13%	14.10%	13.74%	13.99%
Iron (Fe)	0.53%	0.65%	0.60%	0.68%	0.73%	0.65%
Boron (B)	0.00%					0.00%
Sulfur (S)	0.36%					0.32%
Reg'd Metals (mg/kg)						
Manganese (Mn)	199.02	248.50	266.48	306.15	331.05	337.23
Arsenic (As)	3.91	5.39	5.73	8.72	8.42	4.79
Cadmium (Cd)	4.40	5.99	5.16	5.64	5.26	5.32
Chromium (Cr)	17.11	23.35	19.48	17.44	23.68	25.00
Copper (Cu)	87.53	161.08	115.19	132.31	142.63	111.70
Lead (Pb)	28.36	40.12	29.80	23.08	24.74	22.34
Mercury (Hg)	0.34	0.24	0.23	0.56	0.26	0.21
Molybdenum (Mo)	22.49	27.54	24.64	26.67	26.32	24.47
Nickel (Ni)	37.16	211.38	39.54	109.74	140.00	78.19
Selenium (Se)	6.85	5.39	3.44	4.62	5.79	3.19
Zinc (Zn)	429.34	518.56	471.06	495.38	557.89	479.79
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/3/2012** through **12/31/2012**

Sample ID	09120503-001	09120289-001	09120099-001	08120975-001	08120735-001	08120477-001
Report Date	9/17/2012	9/10/2012	9/3/2012	8/27/2012	8/20/2012	8/13/2012
Date Sampled	9/17/2012	9/10/2012	9/3/2012	8/27/2012	8/20/2012	8/13/2012
Lab ID	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503
Date Received						
County						
pH	12.3	12.5	11.9	12	12.3	12.6
Solids (%)	38.50%	43.00%	40.50%	38.00%	47.60%	36.60%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	2.97%	3.12%	2.59%	2.91%	2.46%	3.22%
Organic N	2.85%	3.01%	2.10%	2.68%	2.39%	3.05%
Ammonia N	0.12%	0.11%	0.49%	0.24%	0.07%	0.16%
Total Phosphorus (P)	6.23%	8.40%	6.31%	6.64%	5.34%	7.45%
Potassium (K)	0.20%	0.17%	0.25%	0.26%	0.22%	0.27%
Other Nutr. (% dw)						
Calcium (Ca)	13.82%	12.09%	13.23%	15.00%	11.81%	14.92%
Iron (Fe)	0.51%	0.50%	0.72%	0.66%	0.46%	0.81%
Boron (B)				0.00%		
Sulfur (S)				0.79%		
Reg'd Metals (mg/kg)						
Manganese (Mn)	291.43	267.91	334.81	318.95	257.56	284.70
Arsenic (As)	3.64	5.12	6.91	7.89	6.30	6.56
Cadmium (Cd)	4.16	4.65	5.43	6.84	4.62	4.92
Chromium (Cr)	24.94	27.44	32.10	24.21	31.09	31.69
Copper (Cu)	99.22	131.16	148.64	303.68	118.07	127.87
Lead (Pb)	28.57	25.12	33.58	21.58	22.69	17.49
Mercury (Hg)	0.16	0.14	0.15	0.21	0.21	0.22
Molybdenum (Mo)	22.86	16.28	23.70	22.63	15.55	17.49
Nickel (Ni)	41.04	45.12	58.77	47.37	32.77	35.52
Selenium (Se)	2.60	2.33	3.95	2.63	5.46	6.56
Zinc (Zn)	485.19	493.02	528.40	487.89	428.57	562.84
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/3/2012** through **12/31/2012**

Sample ID	08120202-001	07121119-001	07120858-001	07120604-001	07120314-001	07120054-001
Report Date	8/6/2012	7/30/2012	7/23/2012	7/16/2012	7/9/2012	7/2/2012
Date Sampled	8/6/2012	7/30/2012	7/23/2012	7/16/2012	7/9/2012	7/2/2012
Lab ID	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503
Date Received						
County						
pH	12.4	12.3	12.3	12.2	12.2	12.2
Solids (%)	39.50%	41.10%	40.00%	39.40%	42.00%	44.20%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	2.92%	2.77%	3.16%	2.84%	2.57%	2.96%
Organic N	2.83%	2.70%	3.16%	2.69%	2.47%	2.81%
Ammonia N	0.09%	0.07%	0.02%	0.15%	0.10%	0.15%
Total Phosphorus (P)	5.51%	9.00%	6.57%	5.42%	4.42%	5.07%
Potassium (K)	0.26%	0.26%	0.24%	0.23%	0.26%	0.22%
Other Nutr. (% dw)						
Calcium (Ca)	13.42%	14.06%	14.45%	14.31%	14.95%	15.16%
Iron (Fe)	0.75%	0.66%	0.50%	0.56%	0.52%	0.47%
Boron (B)		0.00%				
Sulfur (S)		0.50%				
Reg'd Metals (mg/kg)						
Manganese (Mn)	270.89	260.34	241.00	234.52	274.29	236.65
Arsenic (As)	6.08	5.35	6.50	6.60	7.14	6.33
Cadmium (Cd)	5.57	5.35	6.00	6.09	6.19	6.79
Chromium (Cr)	34.43	41.36	40.00	37.56	38.10	28.51
Copper (Cu)	145.32	124.57	146.00	123.86	139.52	104.98
Lead (Pb)	28.86	35.52	29.50	24.37	43.33	19.00
Mercury (Hg)	0.30	0.15	0.30	0.81	0.24	0.23
Molybdenum (Mo)	19.24	15.09	19.00	21.83	18.57	22.62
Nickel (Ni)	47.09	30.17	43.50	43.15	43.81	40.72
Selenium (Se)	6.08	5.35	4.00	3.05	3.81	3.17
Zinc (Zn)	556.96	525.55	550.00	472.59	476.19	417.19
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/3/2012** through **12/31/2012**

Sample ID	06120648-001	06120402-001	06120121-001	05121076-001	05120794-001	05120510-001
Report Date	6/18/2012	6/11/2012	6/4/2012	5/29/2012	5/21/2012	5/14/2012
Date Sampled	6/18/2012	6/11/2012	6/4/2012	5/29/2012	5/21/2012	5/14/2012
Lab ID	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503
Date Received						
County						
pH	12.4	12.4	12.5	12.1	12.3	12.3
Solids (%)	47.30%	41.20%	41.70%	37.80%	40.60%	49.90%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	2.36%	2.91%	3.28%	3.74%	2.98%	3.15%
Organic N	2.11%	2.57%	3.18%	3.54%	2.89%	2.99%
Ammonia N	0.25%	0.34%	0.10%	0.20%	0.09%	0.16%
Total Phosphorus (P)	11.70%	5.24%	5.37%	6.85%	5.90%	3.60%
Potassium (K)	0.26%	0.29%	0.35%	0.39%	0.29%	0.26%
Other Nutr. (% dw)						
Calcium (Ca)	13.53%	14.66%	14.20%	11.22%	10.49%	7.45%
Iron (Fe)	0.55%	0.54%	0.55%	0.69%	0.47%	0.65%
Boron (B)	0.00%				0.00%	
Sulfur (S)	0.48%				0.37%	
Reg'd Metals (mg/kg)						
Manganese (Mn)	224.95	259.22	254.68	271.96	246.80	198.80
Arsenic (As)	4.65	6.31	6.24	5.82	5.42	4.01
Cadmium (Cd)	5.50	5.34	4.80	5.29	3.45	4.01
Chromium (Cr)	15.22	18.93	14.87	25.93	19.21	16.03
Copper (Cu)	103.17	129.61	126.14	149.21	124.14	112.22
Lead (Pb)	13.95	25.73	24.46	40.21	29.06	18.84
Mercury (Hg)	0.17	0.24	0.10	0.32	0.20	0.16
Molybdenum (Mo)	19.03	22.82	23.02	21.69	14.29	17.23
Nickel (Ni)	25.37	33.01	31.18	167.20	31.53	37.68
Selenium (Se)	5.50	4.85	4.80	6.35	3.45	4.81
Zinc (Zn)	427.06	454.37	594.72	534.39	428.08	408.82
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/3/2012** through **12/31/2012**

Sample ID	05120242-001	04121052-001	04120788-001	04120531-001	04120267-001	04120057-001
Report Date	5/7/2012	4/30/2012	4/23/2012	4/16/2012	4/9/2012	4/2/2012
Date Sampled	5/7/2012	4/30/2012	4/23/2012	4/16/2012	4/9/2012	4/2/2012
Lab ID	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503
Date Received						
County						
pH	12.1	12.2	11.9	12.1	12	12
Solids (%)	36.90%	35.90%	30.80%	36.50%	40.20%	33.60%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.15%	3.50%	4.10%	3.27%	3.24%	4.59%
Organic N	3.00%	3.37%	3.94%	3.15%	3.07%	4.42%
Ammonia N	0.15%	0.13%	0.16%	0.12%	0.17%	0.17%
Total Phosphorus (P)	3.79%	5.23%	6.29%	6.90%	8.14%	7.67%
Potassium (K)	0.38%	0.44%	0.34%	0.33%	0.32%	0.44%
Other Nutr. (% dw)						
Calcium (Ca)	10.30%	10.53%	11.04%	11.07%	8.46%	10.71%
Iron (Fe)	0.67%	0.68%	0.63%	0.59%	0.46%	0.63%
Boron (B)		0.00%				
Sulfur (S)		0.46%				
Reg'd Metals (mg/kg)						
Manganese (Mn)	269.38	316.43	250.65	224.66	128.36	214.29
Arsenic (As)	7.05	6.13	4.55	5.48	4.48	4.76
Cadmium (Cd)	5.42	5.01	5.84	5.48	4.48	6.55
Chromium (Cr)	22.22	26.18	29.87	28.49	39.30	36.90
Copper (Cu)	131.71	144.85	172.08	149.59	128.36	168.45
Lead (Pb)	25.47	21.73	42.86	38.90	34.83	25.60
Mercury (Hg)	0.16	0.17	0.71	0.38	0.45	0.36
Molybdenum (Mo)	21.68	17.83	20.78	18.08	14.93	22.02
Nickel (Ni)	43.36	49.03	55.19	55.89	39.30	50.60
Selenium (Se)	5.96	6.69	9.74	5.48	4.98	7.14
Zinc (Zn)	512.74	485.24	526.62	456.44	405.47	569.05
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/3/2012** through **12/31/2012**

Sample ID	03120955-001	03120681-001	03120385-001	03120155-001	02120938-001	02120673-001
Report Date	3/26/2012	3/19/2012	3/12/2012	3/5/2012	2/27/2012	2/20/2012
Date Sampled	3/26/2012	3/19/2012	3/12/2012	3/5/2012	2/27/2012	2/20/2012
Lab ID	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503
Date Received						
County						
pH	12.1	12.2	12.1	12.2	12.4	12.6
Solids (%)	35.40%	32.40%	28.10%	29.60%	32.70%	32.00%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.37%	3.95%	4.27%	4.62%	3.59%	4.13%
Organic N	3.23%	3.81%	4.07%	4.45%	3.49%	3.91%
Ammonia N	0.14%	0.15%	0.20%	0.17%	0.10%	0.22%
Total Phosphorus (P)	8.20%	9.28%	9.86%	7.66%	4.80%	5.63%
Potassium (K)	0.28%	0.35%	0.31%	0.42%	0.36%	0.31%
Other Nutr. (% dw)						
Calcium (Ca)	11.92%	12.84%	12.95%	12.77%	11.13%	10.06%
Iron (Fe)	0.63%	0.67%	0.62%	0.52%	0.60%	0.79%
Boron (B)	0.00%				0.00%	
Sulfur (S)	1.62%				1.47%	
Reg'd Metals (mg/kg)						
Manganese (Mn)	209.04	224.69	189.32	179.05	206.73	186.25
Arsenic (As)	4.52	4.32	4.98	5.41	15.29	7.50
Cadmium (Cd)	5.65	5.56	5.69	4.05	5.50	5.00
Chromium (Cr)	19.21	23.46	32.03	25.00	25.08	24.38
Copper (Cu)	149.72	144.44	160.85	154.05	153.52	148.75
Lead (Pb)	40.11	45.06	20.64	42.57	50.76	49.38
Mercury (Hg)	0.45	0.37	0.21	0.27	0.31	0.38
Molybdenum (Mo)	15.82	18.52	17.08	18.92	17.13	14.38
Nickel (Ni)	44.07	40.12	39.15	35.81	47.71	31.25
Selenium (Se)	9.04	12.35	11.39	9.46	8.56	8.75
Zinc (Zn)	510.73	514.81	546.62	497.97	482.57	483.13
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/3/2012** through **12/31/2012**

Sample ID	02120460-001	02120191-001	01121010-001	01120779-001	01120571-001	01120290-001
Report Date	2/13/2012	2/6/2012	1/30/2012	1/23/2012	1/17/2012	1/9/2012
Date Sampled	2/13/2012	2/6/2012	1/30/2012	1/23/2012	1/17/2012	1/9/2012
Lab ID	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503
Date Received						
County						
pH	12.5	12.5	12.7	12.3	12.3	12.6
Solids (%)	36.10%	35.40%	37.30%	34.10%	33.80%	35.80%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.16%	3.02%	3.05%	4.08%	5.05%	3.52%
Organic N	2.97%	2.85%	2.91%	3.89%	4.85%	3.31%
Ammonia N	0.19%	0.17%	0.14%	0.19%	0.21%	0.21%
Total Phosphorus (P)	5.14%	4.14%	4.09%	5.73%	5.31%	7.75%
Potassium (K)	0.30%	0.29%	0.27%	0.31%	0.28%	0.39%
Other Nutr. (% dw)						
Calcium (Ca)	9.81%	11.02%	10.62%	11.73%	11.07%	11.17%
Iron (Fe)	0.70%	0.73%	0.63%	0.65%	0.62%	0.94%
Boron (B)			0.00%			
Sulfur (S)			1.07%			
Reg'd Metals (mg/kg)						
Manganese (Mn)	192.80	224.86	244.50	226.39	217.16	330.17
Arsenic (As)	3.88	5.65	3.75	5.28	4.73	5.03
Cadmium (Cd)	4.99	5.65	5.90	6.45	4.73	7.26
Chromium (Cr)	31.02	34.46	31.10	27.57	30.18	39.11
Copper (Cu)	132.41	111.30	157.64	116.13	143.20	201.12
Lead (Pb)	31.58	29.94	30.03	42.23	29.59	48.04
Mercury (Hg)	0.28	0.23	0.21	0.18	0.30	0.34
Molybdenum (Mo)	13.30	11.30	10.72	12.32	16.57	18.44
Nickel (Ni)	39.89	42.37	39.14	43.99	43.20	51.96
Selenium (Se)	7.20	9.60	8.04	6.45	9.47	12.29
Zinc (Zn)	467.04	406.21	413.94	416.42	459.17	681.56
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/3/2012** through **12/31/2012**

Sample ID	01120083-001
Report Date	1/3/2012
Date Sampled	1/3/2012
Lab ID	CENTRIFUGE CAKE 503
Date Received	
County	
pH	12.6
Solids (%)	37.80%
Volatile (% dw)	
Primary Nutr. (% dw)	
Total Kjeldehl N	2.17%
Organic N	2.05%
Ammonia N	0.12%
Total Phosphorus (P)	7.27%
Potassium (K)	0.31%
Other Nutr. (% dw)	
Calcium (Ca)	10.58%
Iron (Fe)	0.76%
Boron (B)	
Sulfur (S)	
Reg'd Metals (mg/kg)	
Manganese (Mn)	267.72
Arsenic (As)	4.76
Cadmium (Cd)	6.35
Chromium (Cr)	23.81
Copper (Cu)	161.90
Lead (Pb)	40.74
Mercury (Hg)	0.21
Molybdenum (Mo)	16.40
Nickel (Ni)	42.33
Selenium (Se)	10.58
Zinc (Zn)	526.46
Other Data (mg/kg)	
PCBs	
Reactive Cyanide (Cn)	

Biosolids Characteristics

Source: Filter Press **1/3/2012** through **12/31/2012**

Sample ID Report Date Date Sampled Lab ID Date Received County	Avg. of 52 most recent non-null records:	Min. of all in selected range	Max. of all in selected range	12121079-001 12/31/2012 12/31/2012 FILTER PRESS CAKE 503	12120847-001 12/24/2012 12/24/2012 FILTER PRESS CAKE 503	12120597-001 12/17/2012 12/17/2012 FILTER PRESS CAKE 503
pH	10.82	9.8	12.4	11.8	12.2	11.6
Solids (%)	60.73%	42.20%	89.10%	51.10%	53.40%	59.40%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.95%	2.28%	7.01%	3.74%	4.06%	4.21%
Organic N	3.87%	2.25%	6.91%	3.65%	4.00%	4.11%
Ammonia N	0.08%	0.04%	0.52%	0.08%	0.06%	0.11%
Total Phosphorus (P)	9.38%	5.32%	18.30%	9.81%	8.80%	8.03%
Potassium (K)	0.13%	0.07%	0.34%	0.10%	0.09%	0.09%
Other Nutr. (% dw)						
Calcium (Ca)	8.77%	6.15%	16.30%	10.61%	9.59%	8.69%
Iron (Fe)	3.03%	0.61%	4.12%	3.38%	3.42%	3.04%
Boron (B)	0.00%	0.00%	0.01%			
Sulfur (S)	0.46%	0.03%	0.85%			
Reg'd Metals (mg/kg)						
Manganese (Mn)	342.38	241.44	449.44	338.16	280.90	300.00
Arsenic (As)	2.61	1.40	6.16	2.74	2.25	1.68
Cadmium (Cd)	3.87	2.69	7.11	3.91	3.75	3.37
Chromium (Cr)	32.09	18.52	56.96	26.22	19.85	18.86
Copper (Cu)	141.67	101.68	179.68	156.95	117.60	101.68
Lead (Pb)	4.71	1.84	20.38	3.52	2.62	3.37
Mercury (Hg)	0.22	0.09	0.81	0.16	0.26	0.10
Molybdenum (Mo)	13.41	7.23	22.46	14.09	13.86	13.47
Nickel (Ni)	61.10	22.90	408.16	212.92	170.41	24.24
Selenium (Se)	4.94	2.15	8.87	6.26	4.49	3.70
Zinc (Zn)	547.20	451.09	757.58	555.77	483.15	478.11
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/3/2012** through **12/31/2012**

Sample ID	12120343-001	12120080-001	11120843-001	11120616-001	11120373-001	11120135-001
Report Date	12/10/2012	12/3/2012	11/26/2012	11/19/2012	11/12/2012	11/5/2012
Date Sampled	12/10/2012	12/3/2012	11/26/2012	11/19/2012	11/12/2012	11/5/2012
Lab ID	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503
Date Received						
County						
pH	11.7	12	12	11.5	12.3	11.4
Solids (%)	61.10%	61.00%	56.70%	56.10%	55.30%	54.10%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	4.16%	3.68%	4.10%	3.62%	4.10%	4.14%
Organic N	4.07%	3.63%	4.02%	3.55%	4.05%	4.06%
Ammonia N	0.09%	0.04%	0.08%	0.07%	0.06%	0.08%
Total Phosphorus (P)	6.48%	9.36%	12.40%	10.30%	10.60%	11.20%
Potassium (K)	0.09%	0.09%	0.08%	0.11%	0.09%	0.10%
Other Nutr. (% dw)						
Calcium (Ca)	9.00%	9.31%	7.72%	7.66%	8.14%	8.69%
Iron (Fe)	3.34%	2.82%	3.39%	3.56%	3.42%	3.17%
Boron (B)	0.01%				0.00%	
Sulfur (S)	0.85%				0.31%	
Reg'd Metals (mg/kg)						
Manganese (Mn)	280.20	305.90	296.65	367.20	333.09	380.78
Arsenic (As)	1.96	2.30	2.47	3.57	2.89	3.70
Cadmium (Cd)	3.60	3.28	3.53	3.92	3.98	4.44
Chromium (Cr)	18.99	23.61	22.57	26.74	26.04	25.88
Copper (Cu)	125.37	125.90	167.55	179.68	156.96	117.93
Lead (Pb)	4.26	6.23	2.12	2.50	3.98	3.70
Mercury (Hg)	0.10	0.16	0.14	0.18	0.25	0.26
Molybdenum (Mo)	14.73	19.34	19.05	22.46	18.81	15.53
Nickel (Ni)	180.69	26.23	185.19	363.64	87.52	37.34
Selenium (Se)	2.95	5.57	4.59	4.63	3.98	4.44
Zinc (Zn)	481.18	613.11	574.96	623.89	636.53	613.68
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/3/2012** through **12/31/2012**

Sample ID	10121039-001	10120836-001	10120575-001	10120320-001	10120035-001	09120771-001
Report Date	10/29/2012	10/22/2012	10/15/2012	10/8/2012	10/1/2012	9/24/2012
Date Sampled	10/29/2012	10/22/2012	10/15/2012	10/8/2012	10/1/2012	9/24/2012
Lab ID	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503
Date Received						
County						
pH	12.4	11.3	11.4	12.1	12	10.8
Solids (%)	63.70%	54.40%	58.00%	56.80%	58.30%	50.00%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.57%	3.34%	3.41%	3.16%	3.03%	2.63%
Organic N	3.51%	3.29%	3.34%	3.09%	2.97%	2.57%
Ammonia N	0.06%	0.05%	0.08%	0.07%	0.06%	0.06%
Total Phosphorus (P)	12.60%	9.86%	9.92%	10.30%	7.76%	10.40%
Potassium (K)	0.10%	0.09%	0.09%	0.09%	0.11%	0.09%
Other Nutr. (% dw)						
Calcium (Ca)	7.00%	11.07%	9.97%	10.25%	9.57%	9.56%
Iron (Fe)	3.06%	3.49%	3.15%	4.12%	3.70%	4.04%
Boron (B)	0.00%					0.00%
Sulfur (S)	0.54%					0.45%
Reg'd Metals (mg/kg)						
Manganese (Mn)	348.51	393.38	375.86	373.24	384.22	424.00
Arsenic (As)	3.14	3.68	3.45	4.23	4.80	2.80
Cadmium (Cd)	3.45	4.41	3.79	4.23	4.12	4.80
Chromium (Cr)	18.52	22.06	22.07	19.01	23.67	27.20
Copper (Cu)	135.01	124.26	140.34	155.63	132.76	113.60
Lead (Pb)	3.45	5.15	3.79	2.11	3.77	2.80
Mercury (Hg)	0.09	0.29	0.24	0.21	0.24	0.28
Molybdenum (Mo)	14.44	18.75	18.62	17.61	17.50	18.40
Nickel (Ni)	408.16	34.56	122.07	38.38	35.68	39.60
Selenium (Se)	4.40	2.94	3.10	3.52	4.12	3.20
Zinc (Zn)	505.49	558.82	562.07	591.55	596.91	620.00
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/3/2012** through **12/31/2012**

Sample ID	09120505-001	09120292-001	09120100-001	08120977-001	08120737-001	08120479-001
Report Date	9/17/2012	9/10/2012	9/3/2012	8/27/2012	8/20/2012	8/13/2012
Date Sampled	9/17/2012	9/10/2012	9/3/2012	8/27/2012	8/20/2012	8/13/2012
Lab ID	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503
Date Received						
County						
pH	10.7	11	11.2	11.5	11.5	12.2
Solids (%)	65.20%	59.00%	69.00%	61.20%	89.10%	55.60%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.10%	3.31%	3.43%	3.46%	2.28%	3.62%
Organic N	3.05%	3.24%	3.25%	3.40%	2.25%	3.55%
Ammonia N	0.05%	0.08%	0.18%	0.06%	0.04%	0.07%
Total Phosphorus (P)	8.72%	8.36%	6.83%	9.79%	5.32%	8.88%
Potassium (K)	0.07%	0.07%	0.13%	0.14%	0.10%	0.16%
Other Nutr. (% dw)						
Calcium (Ca)	8.96%	8.64%	8.96%	8.79%	6.15%	9.03%
Iron (Fe)	2.90%	3.22%	2.96%	3.08%	2.16%	3.56%
Boron (B)				0.00%		
Sulfur (S)				0.26%		
Reg'd Metals (mg/kg)						
Manganese (Mn)	374.23	362.71	376.81	392.16	282.83	435.25
Arsenic (As)	1.84	2.71	3.19	3.92	3.14	3.96
Cadmium (Cd)	3.07	3.73	3.48	3.92	2.69	4.32
Chromium (Cr)	22.39	31.86	33.04	36.60	34.34	47.12
Copper (Cu)	109.20	134.92	135.94	153.92	105.27	155.04
Lead (Pb)	3.37	3.39	3.77	3.59	3.59	5.76
Mercury (Hg)	0.18	0.17	0.20	0.20	0.18	0.25
Molybdenum (Mo)	13.19	10.85	13.33	14.71	10.10	12.95
Nickel (Ni)	52.76	57.29	38.55	39.54	22.90	31.29
Selenium (Se)	2.15	3.05	2.90	5.23	3.59	6.47
Zinc (Zn)	521.47	508.47	484.06	607.84	505.05	705.04
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/3/2012** through **12/31/2012**

Sample ID	08120205-001	07121121-001	07120860-001	07120606-001	07120317-001	07120057-001
Report Date	8/6/2012	7/30/2012	7/23/2012	7/16/2012	7/9/2012	7/2/2012
Date Sampled	8/6/2012	7/30/2012	7/23/2012	7/16/2012	7/9/2012	7/2/2012
Lab ID	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503
Date Received						
County						
pH	11.9	11.9	10.8	11.4	11.2	11.1
Solids (%)	58.00%	56.60%	62.50%	61.80%	62.30%	65.20%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.70%	3.42%	3.84%	3.76%	3.72%	4.36%
Organic N	3.66%	3.36%	3.78%	3.71%	3.66%	4.29%
Ammonia N	0.05%	0.06%	0.05%	0.05%	0.06%	0.07%
Total Phosphorus (P)	8.72%	14.70%	9.33%	8.42%	7.79%	15.20%
Potassium (K)	0.14%	0.14%	0.13%	0.10%	0.12%	0.09%
Other Nutr. (% dw)						
Calcium (Ca)	8.97%	9.40%	8.77%	9.58%	8.67%	8.96%
Iron (Fe)	3.30%	3.46%	2.64%	2.82%	3.00%	2.69%
Boron (B)		0.00%				
Sulfur (S)		0.12%				
Reg'd Metals (mg/kg)						
Manganese (Mn)	424.14	395.76	377.60	378.64	449.44	389.57
Arsenic (As)	2.76	2.12	2.88	2.27	2.57	2.15
Cadmium (Cd)	4.14	4.24	4.48	4.21	3.53	3.68
Chromium (Cr)	43.10	33.92	56.96	53.72	56.50	24.54
Copper (Cu)	168.97	178.09	174.72	165.05	162.44	142.02
Lead (Pb)	2.76	3.53	2.88	2.27	3.21	1.84
Mercury (Hg)	0.34	0.14	0.10	0.32	0.26	0.09
Molybdenum (Mo)	14.14	14.13	12.80	16.18	14.13	13.50
Nickel (Ni)	34.14	34.98	32.32	31.39	30.82	24.23
Selenium (Se)	6.55	4.59	3.20	2.59	3.85	4.29
Zinc (Zn)	596.55	639.58	604.80	579.29	558.59	524.54
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/3/2012** through **12/31/2012**

Sample ID	06120902-001	06120900-001	06120650-001	06120405-001	06120124-001	05121077-001
Report Date	6/25/2012	6/25/2012	6/18/2012	6/11/2012	6/4/2012	5/29/2012
Date Sampled	6/25/2012	6/25/2012	6/18/2012	6/11/2012	6/4/2012	5/29/2012
Lab ID	FILTER PRESS CAKE 503	CENTRIFUGE CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503
Date Received						
County						
pH	10.8	12.2	10.7	10.8	10.8	10.8
Solids (%)	71.20%	42.20%	66.50%	57.30%	59.80%	59.40%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	4.22%	3.43%	3.77%	3.91%	4.61%	4.20%
Organic N	3.94%	2.92%	3.61%	3.70%	4.55%	4.13%
Ammonia N	0.27%	0.52%	0.15%	0.21%	0.06%	0.07%
Total Phosphorus (P)	7.51%	6.68%	18.30%	8.94%	8.85%	11.50%
Potassium (K)	0.14%	0.34%	0.16%	0.17%	0.20%	0.16%
Other Nutr. (% dw)						
Calcium (Ca)	8.17%	16.30%	9.08%	8.59%	8.29%	8.96%
Iron (Fe)	3.26%	0.61%	3.31%	2.62%	2.35%	2.52%
Boron (B)			0.00%			
Sulfur (S)			0.46%			
Reg'd Metals (mg/kg)						
Manganese (Mn)	370.79	285.78	375.94	401.40	374.58	410.77
Arsenic (As)	1.40	6.16	1.50	2.44	2.68	2.36
Cadmium (Cd)	3.09	7.11	3.61	4.54	3.68	4.38
Chromium (Cr)	35.96	26.07	28.87	30.72	29.10	34.68
Copper (Cu)	148.88	140.76	140.45	134.73	142.81	134.34
Lead (Pb)	2.81	20.38	4.81	3.14	3.68	3.03
Mercury (Hg)	0.28	0.81	0.15	0.21	0.13	0.20
Molybdenum (Mo)	12.36	21.80	14.44	15.36	12.37	13.47
Nickel (Ni)	23.31	26.07	29.47	29.67	29.77	27.61
Selenium (Se)	5.90	5.21	6.02	4.89	5.02	3.03
Zinc (Zn)	497.19	463.51	493.23	534.03	628.76	757.58
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/3/2012** through **12/31/2012**

Sample ID	05120796-001	05120512-001	05120245-001	04121054-001	04120790-001	04120533-001
Report Date	5/21/2012	5/14/2012	5/7/2012	4/30/2012	4/23/2012	4/16/2012
Date Sampled	5/21/2012	5/14/2012	5/7/2012	4/30/2012	4/23/2012	4/16/2012
Lab ID	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503
Date Received						
County						
pH	11.7	11.1	10.5	10.9	10.6	10.5
Solids (%)	55.30%	55.40%	64.50%	61.80%	61.50%	62.00%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	4.08%	4.36%	3.88%	4.22%	4.37%	4.48%
Organic N	4.02%	4.24%	3.84%	4.16%	4.34%	4.43%
Ammonia N	0.05%	0.12%	0.04%	0.05%	0.04%	0.05%
Total Phosphorus (P)	9.41%	8.35%	9.65%	7.44%	9.82%	7.89%
Potassium (K)	0.13%	0.18%	0.18%	0.17%	0.10%	0.11%
Other Nutr. (% dw)						
Calcium (Ca)	9.69%	8.99%	8.62%	7.67%	7.35%	8.00%
Iron (Fe)	3.09%	3.58%	3.22%	2.99%	2.62%	2.35%
Boron (B)	0.00%			0.00%		
Sulfur (S)	0.50%			0.52%		
Reg'd Metals (mg/kg)						
Manganese (Mn)	379.75	328.52	350.39	355.99	406.50	316.77
Arsenic (As)	2.53	2.17	2.48	2.27	1.63	1.61
Cadmium (Cd)	3.62	4.33	3.72	3.24	3.90	3.87
Chromium (Cr)	26.04	38.27	38.45	28.16	45.85	43.87
Copper (Cu)	145.39	140.79	138.91	124.60	146.02	153.55
Lead (Pb)	5.06	4.33	2.48	3.24	9.11	9.68
Mercury (Hg)	0.25	0.32	0.12	0.10	0.26	0.19
Molybdenum (Mo)	7.23	14.08	13.33	12.30	10.41	16.45
Nickel (Ni)	28.57	39.35	31.32	33.33	41.30	39.35
Selenium (Se)	2.53	5.42	4.34	3.88	7.80	2.90
Zinc (Zn)	535.26	537.91	542.64	488.67	491.06	535.48
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/3/2012** through **12/31/2012**

Sample ID	04120270-001	04120060-001	03120957-001	03120683-001	03120387-001	03120158-001
Report Date	4/9/2012	4/2/2012	3/26/2012	3/19/2012	3/12/2012	3/5/2012
Date Sampled	4/9/2012	4/2/2012	3/26/2012	3/19/2012	3/12/2012	3/5/2012
Lab ID	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503
Date Received						
County						
pH	10.3	10.5	9.8	10.4	10.1	11.1
Solids (%)	57.70%	59.10%	62.00%	56.40%	73.60%	62.60%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	5.05%	4.58%	4.01%	7.01%	4.17%	4.43%
Organic N	5.00%	4.53%	3.96%	6.91%	4.12%	4.38%
Ammonia N	0.05%	0.05%	0.05%	0.10%	0.04%	0.05%
Total Phosphorus (P)	9.06%	6.47%	9.42%	11.50%	11.80%	10.90%
Potassium (K)	0.13%	0.13%	0.13%	0.15%	0.11%	0.14%
Other Nutr. (% dw)						
Calcium (Ca)	7.76%	7.99%	7.32%	7.84%	6.77%	7.48%
Iron (Fe)	2.46%	2.84%	2.51%	3.08%	3.99%	3.77%
Boron (B)			0.00%			
Sulfur (S)			0.66%			
Reg'd Metals (mg/kg)						
Manganese (Mn)	268.28	291.03	310.32	372.34	277.17	290.42
Arsenic (As)	2.43	2.37	2.26	2.13	1.90	2.24
Cadmium (Cd)	3.81	4.06	3.87	3.90	3.53	3.51
Chromium (Cr)	49.57	44.67	36.13	36.52	39.67	29.39
Copper (Cu)	137.61	145.18	152.90	150.00	130.43	140.26
Lead (Pb)	3.47	4.06	6.77	4.26	2.45	3.19
Mercury (Hg)	0.14	0.30	0.52	0.25	0.16	0.13
Molybdenum (Mo)	9.01	7.45	10.32	10.64	7.34	8.95
Nickel (Ni)	37.09	39.59	35.81	35.46	26.63	27.80
Selenium (Se)	4.51	5.41	8.39	8.87	6.52	6.39
Zinc (Zn)	492.20	541.46	600.00	574.47	451.09	498.40
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/3/2012** through **12/31/2012**

Sample ID	02120940-001	02120675-001	02120462-001	01121012-001	01120781-001	01120572-001
Report Date	2/27/2012	2/20/2012	2/13/2012	1/30/2012	1/23/2012	1/17/2012
Date Sampled	2/27/2012	2/20/2012	2/13/2012	1/30/2012	1/23/2012	1/17/2012
Lab ID	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503
Date Received						
County						
pH	11	11	11.6	11.3	12	11.6
Solids (%)	61.90%	66.20%	63.00%	63.70%	63.10%	63.00%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.95%	4.44%	4.16%	4.38%	4.41%	3.91%
Organic N	3.90%	4.39%	4.08%	4.33%	4.35%	3.85%
Ammonia N	0.05%	0.05%	0.08%	0.05%	0.06%	0.06%
Total Phosphorus (P)	8.87%	5.70%	7.43%	6.95%	7.66%	8.60%
Potassium (K)	0.14%	0.13%	0.15%	0.13%	0.13%	0.14%
Other Nutr. (% dw)						
Calcium (Ca)	8.08%	8.61%	7.84%	7.94%	9.57%	9.33%
Iron (Fe)	2.76%	2.46%	3.27%	2.53%	2.78%	3.08%
Boron (B)	0.00%			0.00%		
Sulfur (S)	0.79%			0.03%		
Reg'd Metals (mg/kg)						
Manganese (Mn)	242.97	254.98	290.48	241.44	251.66	265.08
Arsenic (As)	2.26	2.42	1.59	1.57	1.90	2.22
Cadmium (Cd)	3.55	3.63	3.81	4.08	3.80	2.86
Chromium (Cr)	31.66	26.59	32.70	26.37	21.24	37.78
Copper (Cu)	137.00	132.33	146.35	155.10	129.32	139.05
Lead (Pb)	8.40	6.34	10.16	8.79	3.80	9.84
Mercury (Hg)	0.16	0.30	0.29	0.22	0.13	0.38
Molybdenum (Mo)	10.66	8.76	8.89	7.85	7.92	9.21
Nickel (Ni)	31.02	25.08	32.70	24.18	29.16	28.89
Selenium (Se)	7.11	6.04	6.35	8.48	6.97	7.62
Zinc (Zn)	497.58	480.36	520.63	474.10	497.62	488.89
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/3/2012** through **12/31/2012**

Sample ID	01120293-001	01120085-001
Report Date	1/9/2012	1/3/2012
Date Sampled	1/9/2012	1/3/2012
Lab ID	FILTER PRESS CAKE 503	FILTER PRESS CAKE 503
Date Received		
County		
pH	10.1	11.3
Solids (%)	74.10%	60.10%
Volatile (% dw)		
Primary Nutr. (% dw)		
Total Kjeldehl N	4.45%	4.53%
Organic N	4.35%	4.49%
Ammonia N	0.10%	0.04%
Total Phosphorus (P)	9.02%	10.40%
Potassium (K)	0.18%	0.20%
Other Nutr. (% dw)		
Calcium (Ca)	8.07%	9.78%
Iron (Fe)	2.47%	2.94%
Boron (B)		
Sulfur (S)		
Reg'd Metals (mg/kg)		
Manganese (Mn)	269.37	297.50
Arsenic (As)	2.16	2.33
Cadmium (Cd)	3.51	3.99
Chromium (Cr)	34.82	30.62
Copper (Cu)	143.05	142.43
Lead (Pb)	8.10	8.65
Mercury (Hg)	0.19	0.23
Molybdenum (Mo)	9.99	10.98
Nickel (Ni)	28.07	25.62
Selenium (Se)	6.75	8.65
Zinc (Zn)	502.02	505.82
Other Data (mg/kg)		
PCBs		
Reactive Cyanide (Cn)		

APPENDIX D
503 PATHOGEN ANALYSES
FOR
2012 LAND APPLICATION

40CFR 503 ANNUAL SLUDGE REPORT
MOCCASIN BEND WWTP
CHATTANOOGA, TN
NPDES PERMIT NO. TN0024210

JANUARY 2012

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 44750

Client: Analytical Services, Inc.
Address: 130 Allen Brook Lane
Williston, VT 05495

Date Collected: January 30, 2012
Sample Receipt Date: January 31, 2012

Laboratory Results

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
44750-01 Centrifuge Feed	2120131-2	Total solids	-	UNH	2.32% total solids	2/1/12	2/2/12
		Fecal coliforms	30ml	UNH	7.2×10^{7} MPN/0.69gm total solids	1/31/12	2/2/12
		Salmonella	155 ml	UNH	< 3MPN/3.59 gm total solids	1/31/12	2/7/12
		Viable helminth ova	450 ml	UNH	<1 vho/4 gm total solids	2/1/12	2/7/12
		Enteric virus	200 ml	UNH	<1 pfu virus/4 gm total solids	1/31/12	2/13/12
		Male specific phage	1.0 ml	UNH	178 PFU/ml	2/1/12	2/2/12

PFU = Plaque Forming Unit MPN = Most Probable Number

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 44750

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
44750-02 Centrifuge Biosolids MBEL# 01121010	2120131-3	Total solids	-	UNH	34.86% total solids	2/1/12	2/2/12
		Fecal coliforms	30 gm	UNH	<1000 MPN/gm total solids	1/31/12	2/2/12
		Salmonella	15.5 gm	UNH	< 3MPN/4 gm total solids	1/31/12	2/2/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	2/1/12	2/7/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	1/31/12	2/13/12
		Male specific phage	0.1 ml	UNH	0 PFU/0.1ml	2/1/12	2/2/12

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 44750

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
44750-03 Filter Press Biosolids MBEL# 01121012	2120131-4	Total solids	-	UNH	63.30% total solids	2/1/12	2/2/12
		Fecal coliforms	30 gm	UNH	<1000 MPN/gm total solids	1/31/12	2/2/12
		Salmonella	15.5 gm	UNH	< 3MPN/4 gm total solids	1/31/12	2/2/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	2/1/12	2/7/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	1/31/12	2/13/12
		Male specific phage	0.1 ml	UNH	0 PFU/0.1 ml	2/1/12	2/2/12

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 44750

Methods Used under 40CFR Part 503

Viable Helminth Ova:	Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, USEPA, 1988. Berk, SG. Gunderson. Wastewater Organisms a Color Atlas, 1993.
Percent Solids:	APHA, AWWA. WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.
Fecal Coliform:	Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. July 2006. EPA-821-R-06-012
Enteric Viruses:	ASTM Method D 4994-96. 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses
Salmonella:	EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14
Male specific phage	Using a modified double agar overlay. Manual of Environmental Microbiology. Second Ed. Detection of Bacterial viruses (Bacteriphages). 532-533. 2002.
pH:	EPA-SW-846: Test Methods Manual for Evaluating Solid Waste, Physical/Chemical Method. Method 9045D.
Exception(s):	Fecal coliform and Salmonella received out of method specified hold time

Analyzed by the virology laboratory at the University of New Hampshire. Analyses were performed in accordance with standard protocols, with any exceptions or non-conformances noted above, as certified by the undersigned:

Approved by: Aaron Margolin Ph.D. Digitally signed by Aaron Margolin Ph.D. DN: cn=Aaron Margolin Ph.D., o=University of New Hampshire, ou=Department of Molecular/Cellular and Biomedical Sciences, email=Aaron.Margolin@unh.edu, c=US Date: 2012.02.15 16:46:32 -05'00'

Aaron B. Margolin, Ph.D.
Professor, UNH,
Department of Molecular, Cellular and Biomedical Sciences

FEBRUARY 2012

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 44922

Client: Analytical Services, Inc.
Address: 130 Allen Brook Lane
Williston, VT 05495

Date Collected: February 27, 2012
Sample Receipt Date: February 28, 2012

Laboratory Results

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
44922-01	2120228-1	Total solids	-	UNH	30.95% total solids	2/28/12	2/29/12
Centrifuge Biosolids MBEL#02120938		Fecal coliforms	5.555 gm	UNH	<1000 MPN/gm total solids	3/28/12	3/2/12
		Salmonella	15.5 gm	UNH	< 3MPN/4 gm total solids	2/28/12	3/2/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	2/29/12	3/6/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	2/28/12	3/20/12

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 44922

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
44922-02	2120228-2	Total solids	-	UNH	61.98% total solids	2/28/12	2/29/12
Filter Press Biosolids MBEL#02120940		Fecal coliforms	5.555 gm	UNH	<1000 MPN/gm total solids	3/28/12	3/2/12
		Salmonella	15.5 gm	UNH	< 3MPN/4 gm total solids	2/28/12	3/2/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	2/29/12	3/6/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	2/28/12	3/20/12

PFU = Plaque Forming Unit MPN = Most Probable Number

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 44922

Methods Used under 40CFR Part 503

Viable Helminth Ova:	Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, USEPA, 1988. Berk, SG. Gunderson. Wastewater Organisms a Color Atlas, 1993.
Percent Solids:	APHA, AWWA. WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.
Fecal Coliform:	Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. July 2006. EPA-821-R-06-012
Enteric Viruses:	ASTM Method D 4994-96. 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses
Salmonella:	EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14
pH:	EPA-SW-846: Test Methods Manual for Evaluating Solid Waste, Physical/Chemical Method. Method 9045D.
Exception(s):	Fecal coliforms and Salmonella received out of method specified hold time

Analyzed by the virology laboratory at the University of New Hampshire. Analyses were performed in accordance with standard protocols, with any exceptions or non-conformances noted above, as certified by the undersigned:

Approved by: aaron.margolin

Digitally signed by aaron.margolin
DN: c=US, o=Apple Inc., ou=me.com, cn=aaron.margolin, 2.5.4.13=MobileMe Sharing Certificate
Date: 2012.03.21 07:35:55 -05'00'

Aaron B. Margolin, Ph.D.
Professor, UNH,
Department of Molecular/Cellular and Biomedical Sciences

MARCH 2012

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 45108

Client: Analytical Services, Inc.
Address: 130 Allen Brook Lane
Williston, VT 05495

Date Collected: March 26, 2012
Sample Receipt Date: March 27, 2012

Laboratory Results

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
45108-01 Centrifuge Biosolids MBEL#03120955	2120327-1	Total solids	-	UNH	35.65% total solids	3/27/12	3/28/12
		Fecal coliforms	5.555 gm	UNH	<1000 MPN/gm total solids	3/27/12	3/29/12
		Salmonella	15.5 gm	UNH	< 3MPN/4 gm total solids	3/27/12	3/29/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	3/28/12	3/30/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	3/28/12	4/10/12

PFU = Plaque Forming Unit MPN = Most Probable Number

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 45108

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
45108-02 Filter Press Biosolids MBEL#03120957	2120327-2	Total solids	-	UNH	61.02% total solids	3/27/12	3/28/12
		Fecal coliforms	5.555 gm	UNH	<1000 MPN/gm total solids	3/27/12	3/29/12
		Salmonella	15.5 gm	UNH	< 3MPN/4 gm total solids	3/27/12	3/29/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	3/28/12	3/30/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	3/28/12	4/10/12

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 45108

Methods Used under 40CFR Part 503

Viable Helminth Ova:	Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, USEPA, 1988. Berk, SG. Gunderson. Wastewater Organisms a Color Atlas, 1993.
Percent Solids:	APHA, AWWA. WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.
Fecal Coliform:	Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. July 2006. EPA-821-R-06-012
Enteric Viruses:	ASTM Method D 4994-96. 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses
Salmonella:	EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14
pH:	EPA-SW-846: Test Methods Manual for Evaluating Solid Waste, Physical/Chemical Method. Method 9045D.
Exception(s):	Fecal coliforms and Salmonella received out of method specified hold time

Analyzed by the virology laboratory at the University of New Hampshire. Analyses were performed in accordance with standard protocols, with any exceptions or non-conformances noted above, as certified by the undersigned:

Approved by: aaron.margolin

Digitally signed by aaron.margolin
DN: c=US, o=Apple Inc., ou=me.com, cn=aaron.margolin, 2.5.4.13=MobileMe Sharing Certificate
Date: 2012.04.12 12:42:56 -05'00'

Aaron B. Margolin, Ph.D.
Professor, UNH,
Department of Molecular/Cellular and Biomedical Sciences

APRIL 2012

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 45298

Client: Analytical Services, Inc.
Address: 130 Allen Brook Lane
Williston, VT 05495

Date Collected: April 30, 2012
Sample Receipt Date: May 1, 2012

Laboratory Results

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
45298-01 Centrifuge Feed	2120501-3	Total solids	-	UNH	2.09% total solids	5/1/12	5/2/12
		Fecal coliforms	30ml	UNH	1.1×10^{7} MPN/gm total solids	5/1/12	5/3/12
		Salmonella	155 ml	UNH	< 3MPN/3.24 gm total solids	5/1/12	5/8/12
		Viable helminth ova	450 ml	UNH	<1 vho/4 gm total solids	5/3/12	5/10/12
		Enteric virus	200 ml	UNH	<1 pfu virus/4 gm total solids	5/1/12	5/14/12
		Male specific phage	1.0 ml	UNH	2.2×10^{4} PFU/gm total solids	5/1/12	5/2/12

PFU = Plaque Forming Unit MPN = Most Probable Number

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#:

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
45298-02	2120501-4	Total solids	-	UNH	34.21% total solids	5/1/12	5/2/12
Centrifuge Biosolids MBEL#04121052		Fecal coliforms	5.555 gm	UNH	<1000 MPN/gm total solids	5/1/12	5/3/12
		Salmonella	15.5 gm	UNH	< 3MPN/3.24 gm total solids	5/1/12	5/3/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	5/3/12	5/10/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	5/1/12	5/14/12
		Male specific phage	0.1 ml	UNH	0 PFU/gm total solids	5/1/12	5/2/12

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project# 45298

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
45298-03 Filter Press Feed	2120501-5	Total solids	-	UNH	2.31% total solids	5/1/12	5/2/12
		Fecal coliforms	30ml	UNH	<1000 MPN/gm total solids	5/1/12	5/3/12
		Salmonella	155 ml	UNH	< 3MPN/3.24 gm total solids	5/1/12	5/4/12
		Viable helminth ova	450 ml	UNH	<1 vho/4 gm total solids	5/3/12	5/10/12
		Enteric virus	200 ml	UNH	<1 pfu virus/4 gm total solids	5/1/12	5/14/12
		Male specific phage	1.0 ml	UNH	3.4×10^4 PFU/gm total solids	5/1/12	5/2/12

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#:

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
45298-04 Filter Press Biosolids MBEL#04121054	2120501-6	Total solids	-	UNH	62.80% total solids	5/1/12	5/2/12
		Fecal coliforms	5.555 gm	UNH	<1000 MPN/gm total solids	5/1/12	5/3/12
		Salmonella	15.5 gm	UNH	< 3MPN/3.24 gm total solids	5/1/12	5/3/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	5/3/12	5/10/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	5/1/12	5/14/12
		Male specific phage	0.1 ml	UNH	0 PFU/gm total solids	5/1/12	5/2/12

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#

Methods Used under 40CFR Part 503

Viable Helminth Ova:	Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, USEPA, 1988. Berk, SG. Gunderson. Wastewater Organisms a Color Atlas, 1993.
Percent Solids:	APHA, AWWA. WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.
Fecal Coliform:	Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. July 2006. EPA-821-R-06-012
Enteric Viruses:	ASTM Method D 4994-96. 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses
Salmonella:	EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14
Male specific phage	Using a modified double agar overlay. Manual of Environmental Microbiology. Second Ed. Detection of Bacterial viruses (Bacteriphages). 532-533. 2002.
pH:	EPA-SW-846: Test Methods Manual for Evaluating Solid Waste, Physical/Chemical Method. Method 9045D.
Exception(s):	Fecal coliforms and Salmonella received out of method specified hold time

Analyzed by the virology laboratory at the University of New Hampshire. Analyses were performed in accordance with standard protocols, with any exceptions or non-conformances noted above, as certified by the undersigned:

Approved by: aaron.margolin

Digitally signed by aaron.margolin
DN: c=US, o=Apple Inc., ou=me.com, cn=aaron.margolin, 2.5.4.13=MobileMe Sharing Certificate
Date: 2012.05.15 12:31:09 -05'00'

Aaron B. Margolin, Ph.D.

Professor, UNH,
Department of Molecular, Cellular and Biomedical Sciences

MAY 2012

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 45412

Client: Analytical Services, Inc.
Address: 130 Allen Brook Lane
Williston, VT 05495

Date Collected: May 21, 2012
Sample Receipt Date: May 22, 2012

Laboratory Results

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
45412-01	2120522-1	Total solids	-	UNH	37.82% total solids	5/22/12	5/23/12
Centrifuge Biosolids MBEL#05120794		Fecal coliforms	5.555 gm	UNH	<1000 MPN/gm total solids	5/22/12	5/24/12
		Salmonella	15.5 gm	UNH	< 3MPN/4 gm total solids	5/22/12	5/25/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	5/23/12	5/30/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	5/22/12	6/5/12

PFU = Plaque Forming Unit MPN = Most Probable Number

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 45412

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
45412-02	2120522-2	Total solids	-	UNH	54.48% total solids	5/22/12	5/23/12
Filter Press Biosolids MBEL#05120796		Fecal coliforms	5.555 gm	UNH	<1000 MPN/gm total solids	5/22/12	5/24/12
		Salmonella	15.5 gm	UNH	< 3MPN/4 gm total solids	5/22/12	5/25/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	5/23/12	5/30/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	5/22/12	6/5/12

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 45412

Methods Used under 40CFR Part 503

Viable Helminth Ova:	**Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, USEPA, 1988. Berk, SG. Gunderson. Wastewater Organisms a Color Atlas, 1993.**
Percent Solids:	**APHA, AWWA. WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.**
Fecal Coliform:	**Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. July 2006. EPA-821-R-06-012**
Enteric Viruses:	**ASTM Method D 4994-96. 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses**
Salmonella:	**EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14**
pH:	**EPA-SW-846: Test Methods Manual for Evaluating Solid Waste, Physical/Chemical Method. Method 9045D.**
Exception(s):	**Salmonella and fecal coliforms analyzed out of recommended hold time**

Analyzed by the virology laboratory at the University of New Hampshire. Analyses were performed in accordance with standard protocols, with any exceptions or non-conformances noted above, as certified by the undersigned:

Approved by: aaron.margolin Digitally signed by aaron.margolin DN: c=US, o=Apple Inc., ou=me.com, cn=aaron.margolin, 2.5.4.13=MobileMe Sharing Certificate Date: 2012.06.11 08:01:22 -05'00'

Aaron B. Margolin, Ph.D.
Professor, UNH,
Department of Molecular/Cellular and Biomedical Sciences

JUNE 2012

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 45540

Client: Analytical Services, Inc.
Address: 130 Allen Brook Lane
Williston, VT 05495

Date Collected: June 18, 2012
Sample Receipt Date: June 19, 2012

Laboratory Results

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
45540-01	2120619-6	Total solids	-	UNH	43.94% total solids	6/19/12	6/20/12
Centrifuge Biosolids MBEL#06120648		Fecal coliforms	5.555 gm	UNH	<1000 MPN/gm total solids	6/19/12	6/21/12
		Salmonella	15.5 gm	UNH	< 3MPN/4 gm total solids	6/19/12	6/21/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	6/19/12	6/28/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	6/19/12	7/11/12

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 45540

ASI Sample #	UNH Sample #	Parameter	Amount Processed based upon wet weight or volume	Analyst	Result	Date Analyzed	
						Start	End
45540-02	2120619-7	Total solids	-	UNH	63.36% total solids	6/19/12	6/20/12
Filter Press Biosolids MBEL #06120650		Fecal coliforms	5.555 gm	UNH	<1000 MPN/gm total solids	6/19/12	6/21/12
		Salmonella	15.5 gm	UNH	< 3MPN/4 gm total solids	6/19/12	6/21/12
		Viable helminth ova	50 gm	UNH	<1 vho/4 gm total solids	6/19/12	6/28/12
		Enteric virus	100 gm	UNH	<1 pfu virus/4 gm total solids	6/19/12	7/11/12

PFU = Plaque Forming Unit MPN = Most Probable Number

UNIVERSITY OF NEW HAMPSHIRE

Department of Molecular, Cellular and Biomedical Sciences
College of Life Sciences and Agriculture
Rudman Hall
Durham, New Hampshire 03824-3544

Project#: 45540

Methods Used under 40CFR Part 503

Viable Helminth Ova:	Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, USEPA, 1988. Berk, SG. Gunderson. Wastewater Organisms a Color Atlas, 1993.
Percent Solids:	APHA, AWWA. WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.
Fecal Coliform:	Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. July 2006. EPA-821-R-06-012
Enteric Viruses:	ASTM Method D 4994-96. 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses
Salmonella:	EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14
pH:	EPA-SW-846: Test Methods Manual for Evaluating Solid Waste, Physical/Chemical Method. Method 9045D.
Exception(s):	Salmonella and Fecal coliforms received after method specified hold times

Analyzed by the virology laboratory at the University of New Hampshire. Analyses were performed in accordance with standard protocols, with any exceptions or non-conformances noted above, as certified by the undersigned:

Approved by: Aaron Margolin Ph.D.

Digitally signed by Aaron Margolin Ph.D.
DN: cn=Aaron Margolin Ph.D., o=University of New Hampshire, ou=Department of Molecular, Cellular, and Biomedical Sciences, email=Aaron.Margolin@unh.edu, c=US
Date: 2012.07.25 11:15:22 -05'00'

Aaron B. Margolin, Ph.D.
Professor, UNH,
Department of Molecular/Cellular and Biomedical Sciences

JULY 2012

ANALYTICAL SERVICES, INC.
Microbiological Testing, Research and Consulting

130 Allen Brook Lane, Williston, VT 05495 USA
1 800 723 4432 / 802 878 5138 Fax: 802 878 6765
www.analyticalservices.com

Client: Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

ASI Project ID: 45746
Date Collected: 7/30/2012
Sample Receipt: 7/31/2012

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Feed	45746-01	7/30/2012 @ 07:55	Coliphage - Somatic	NR	NR	NR	NR	NR
			Coliphage - Male Specific	0.23 g Dry Weight	5.3×10^3 PFU/g Dry Weight	7/31/12 @ 17:00	8/1/12 @ 10:34	ASI
			Enteric Viruses	1.34 g Dry Weight	<1 PFU/1.34 g Dry Weight	8/1/2012	8/30/2012	UNH
			Fecal Coliform	7.0 g Dry Weight	$>6.9 \times 10^5$ PFU/g Dry Weight	7/31/2012 @ 12:49	8/2/2012 @ 12:00	ASI
			Salmonella	7.0 g Dry Weight	23.42 MPN/4g	7/31/2012 @ 12:50	8/4/2012 @ 7:08	ASI
			Total Solids	28.03 g Wet Weight	2.33%	7/31/2012 @ 12:23	8/1/2012 @ 7:21	ASI
			Viable helminth ova	3.89 g Dry Weight	<1 VHO/3.89 g	8/30/12 @ 12:40	9/10/12 @ 13:30	ASI
Centrifuge Biosolids MBEL# 07121119	45746-02	7/30/2012 @ 08:30	Coliphage - Somatic	NR	NR	NR	NR	NR
			Coliphage - Male Specific	4.33 g Dry Weight	ND	7/31/12 @ 17:00	8/1/12 @ 10:34	ASI
			Enteric Viruses	21.26 g Dry Weight	<1 PFU/21.26 g Dry Weight	8/1/2012	8/30/2012	UNH
			Fecal Coliform	12.98 g Dry Weight	<4.17 MPN/g Dry Weight	7/31/2012 @ 12:49	8/3/2012 @ 10:32	ASI
			Salmonella	12.98 g Dry Weight	<0.60 MPN/4g	7/31/2012 @ 12:50	8/2/2012 @ 7:51	ASI
			Total Solids	26.98 g Wet Weight	43.28%	7/31/2012 @ 12:23	8/1/2012 @ 7:21	ASI
			Viable helminth ova	4.06 g Dry Weight	<1 VHO/4.06 g	8/30/12 @12:16	9/10/12 @ 13:48	ASI

Filter Press Feed	45746-03	7/30/2012 @ 8:00	Coliphage - Somatic	NR	NR	NR	NR	NR
			Coliphage - Male Specific	0.27g Dry Weight	5.6x10^3 PFU/g Dry Weight	7/31/12 @ 17:00	8/1/12 @ 10:34	ASI
			Enteric Viruses	1.58 g Dry Weight	<1 PFU/1.58 g Dry Weight	8/1/2012	8/30/2012	UNH
			Fecal Coliform	8.13 g Dry Weight	>5 x10^6 MPN/g Dry Weight	7/31/2012 @ 12:49	8/2/2012 @ 12:00	ASI
			Salmonella	8.13 g Dry Weight	29.74 MPN/4g	7/31/2012 @ 12:50	8/4/2012 @ 7:08	ASI
			Total Solids	27.27 g Wet Weight	2.71%	7/31/2012 @ 12:23	8/1/2012 @ 7:21	ASI
			Viable helminth ova	4.01 g Dry Weight	<1 VHO/4.01 g	8/30/12 @ 12:40	9/10/12 @ 14:14	ASI

Filter Press Biosolids MBEL# 07121121	45746-04	7/30/2012 @ 8:25	Coliphage - Somatic	NR	NR	NR	NR	NR
			Coliphage - Male Specific	5.87 g Dry Weight	1.5 PFU/g Dry Weight	7/31/12 @ 17:00	8/1/12 @ 10:34	ASI
			Enteric Viruses	54.98 g Dry Weight	<1 PFU/54.98 g Dry Weight	8/1/2012	8/30/2012	UNH
			Fecal Coliform	17.60 g Dry Weight	<3.07 MPN/g Dry Weight	7/31/2012 @ 12:49	8/3/2012 @ 10:32	ASI
			Salmonella	17.60 g Dry Weight	<0.44 MPN/4g	7/31/2012 @ 12:50	8/2/2012 @ 7:51	ASI
			Total Solids	27.44 g Wet Weight	58.66%	7/31/2012 @ 12:23	8/1/2012 @ 7:21	ASI
			Viable helminth ova	4.05 g Dry Weight	<1 VHO/4.05 g	8/30/12 @12:16	9/10/12 @ 14:35	ASI

MPN = Most Probable Number, PFU = Plaque Forming Units, g = Grams, NR = Not Requested, ND = None Detected

Methods Used under 40CFR Part 503

Enteric Viruses: ASTM Method D 4994-96, 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses
Fecal Coliform: Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. April 2011 EPA-821-R-10-003
Salmonella: EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14
Percent Solids: APHA, AWWA, WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.
Viable helmith ova: Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, USEPA, 1988.
Berk, SG, Gunderson, Wastewater Organisms a Color Atlas, 1993.
Male-Specific and Somatic Coliphage: EPA Method 1602: Male-specific (F+) and Somatic Coliphage in Water by Single Agar Layer (SAL) Procedure - a modification for solid samples.

UNH = University of New Hampshire - The Virology laboratory at UNH is certified for biosolids analysis by the Pennsylvania Department of Environmental Protection (Lab. No. 68-03922).
ASI = Analytical Services, Inc. is accredited by FL-DOH (Lab No. E871011) under NELAC for analysis of selected parameters in solid matrices.

Exceptions: none

AUGUST 2012

ANALYTICAL SERVICES, INC.
Microbiological Testing, Research and Consulting

130 Allen Brook Lane, Williston, VT 05495 USA
1 800 723 4432 / 802 878 5138 Fax: 802 878 5765
www.analyticalservices.com

Client: Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

ASI Project ID: 45920
Date Collected: 8/27/2012
Sample Receipt: 8/28/2012

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed Start	Date/Time Analyzed End	Lab
Centrifuge Biosolids MBEL# 08120975	45920-01	8/27/2012 @ 08:30	Enteric Viruses	5.56 g Dry Weight	<1 PFU/5.56 g Dry Weight	08/29/12 @ 11:15	10/17/2012	UNH
			Fecal Coliform	11.44 g Dry Weight	<4.73 MPN/g	8/28/2012 @ 12:30	8/30/2012 @ 10:34	ASI
			Salmonella	11.44 g Dry Weight	<0.68 MPN/4g	8/28/2012 @ 12:30	8/30/2012 @ 07:33	ASI
			Total Solids	24.30 g Wet Weight	38.11%	8/28/2012 @ 12:14	8/29/2012 @ 07:45	ASI
			Viable helminth ova	4.04 g Dry Weight	<1 VHO/4.04 g	9/20/12 @ 12:35	10/15/12 @ 09:50	ASI
Filter Press Biosolids MBEL# 08120977	45920-02	8/27/2012 @ 8:20	Enteric Viruses	4.87 g Dry Weight	<1 PFU/4.87 g Dry Weight	08/29/12 @11:15	9/26/2012	UNH
			Fecal Coliform	17.88 g Dry Weight	<3.02 MPN/g Dry Weight	8/28/2012 @ 12:30	8/31/2012 @ 08:40	ASI
			Salmonella	17.88 g Dry Weight	<0.43 MPN/4g	8/28/2012 @ 12:30	8/30/2012 @ 07:33	ASI
			Total Solids	25.53 g Wet Weight	59.61%	8/28/2012 @ 12:14	8/29/2012 @ 07:45	ASI
			Viable helminth ova	4.05 g Dry Weight	<1 VHO/4.05 g	9/20/12 @ 12:35	10/15/12 @ 10:10	ASI

MPN = Most Probable Number, PFU = Plaque Forming Units, g = Grams

Methods Used under 40CFR Part 503

Enteric Viruses: ASTM Method D 4994-96. 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses
Fecal Coliform: Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. April 2011 EPA-821-R-10-003
Salmonella: EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14
Percent Solids: APHA, AWWA, WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.
Viable helmith ova: Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, USEPA, 1988.
Berk, SG. Gunderson. Wastewater Organisms a Color Atlas, 1993.
Exception(s):

UNH = University of New Hampshire - The Virology laboratory at UNH is certified for biosolids analysis by the Pennsylvania Department of Environmental Protection (Lab. No. 68-03922).
ASI = Analytical Services, Inc. is accredited by FL-DOH (Lab No. E871011) under NELAC for analysis of selected parameters in solid matrices.

Exceptions: None.

SEPTEMBER 2012

ANALYTICAL SERVICES, INC.
Microbiological Testing, Research and Consulting

130 Allen Brook Lane, Williston, VT 05495 USA
1.800.723.4432 / 802.878.5138 Fax: 802.878.6765
www.analyticalservices.com

Client: Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

ASI Project ID: 46085
Date Collected: 9/24/2012
Sample Receipt: 9/25/2012

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Biosolids MBEL# 09120769	46085-01	9/24/2012 @ 8:25	Enteric Viruses	4.94 g Dry Weight	<1 PFU/4.94 g Dry Weight	9/26/12 @ 08:40	11/9/2012	UNH
			Fecal Coliform	11.33 g Dry Weight	<4.77 MPN/g Dry Weight	9/25/2012 @ 11:56	9/28/2012 @ 09:35	ASI
			Salmonella	11.33 g Dry Weight	<0.69 MPN/4g	9/25/2012 @ 11:58	9/27/2012 @ 07:52	ASI
			Total Solids	29.61 g Wet Weight	37.76%	9/25/2012 @ 11:40	9/26/2012 @ 07:45	ASI
			Viable helminth ova	4.15 g Dry Weight	<1 VHO/4.15 g	10/4/12 @ 14:44	10/18/12 @ 13:33	ASI
Filter Press Biosolids MBEL# 09120771	46085-02	9/24/2012 @8:40	Enteric Viruses	11.43 g Dry Weight	<1 PFU/11.43 g Dry Weight	9/26/12 @ 08:40	11/9/2012	UNH
			Fecal Coliform	15.13 g Dry Weight	<3.58 MPN/g Dry Weight	9/25/2012 @ 11:56	9/28/2012 @ 09:35	ASI
			Salmonella	15.13 g Dry Weight	<0.51 MPN/4g	9/25/2012 @ 11:58	9/27/2012 @ 07:52	ASI
			Total Solids	26.37 g Wet Weight	50.42%	9/25/2012 @ 11:40	9/26/2012 @ 07:45	ASI
			Viable helminth ova	4.03 g Dry Weight	<1 VHO/4.03 g	10/4/12 @ 14:44	10/18/12 @ 14:10	ASI

MPN = Most Probable Number; PFU = Plaque Forming Units; g = Grams

Methods Used under 40CFR Part 503

Enteric Viruses: ASTM Method D 4994-96. 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses
Fecal Coliform: Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. April 2011 EPA-821-R-10-003
Salmonella: EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14
Percent Solids: APHA, AWWA. WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.
Viable helmith ova: Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, USEPA, 1988.
Berk, SG. Gunderson. Wastewater Organisms a Color Atlas, 1993.
Exception(s): None

UNH = University of New Hampshire - The Virology laboratory at UNH is certified for biosolids analysis by the Pennsylvania Department of Environmental Protection (Lab. No. 68-03922).
ASI = Analytical Services, Inc. is accredited by FL-DOH (Lab No. E871011) under NELAC for analysis of selected parameters in solid matrices.

Exceptions:

OCTOBER 2012

ANALYTICAL SERVICES, INC.
Microbiological Testing, Research and Consulting

130 Allen Brook Lane, Williston, VT 05495 USA
1.800.723.4432 / 802.878.5138 Fax 802.878.6765
www.analyticalservices.com

Client: Paul Patterson
Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN

ASI Project ID: 46277
Date Collected: 10/29/2012
Sample Receipt: 10/30/2012

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Feed	46277-01	10/29/2012 @ 08:30	Coliphage - Male Specific	0.21 g Dry Weight	$9.0x10^3$ PFU/g	10/30/12 @ 16:42	10/31/12 @ 11:50	ASI
			Enteric Viruses	4.16 g Dry Weight	<1 PFU/4.16 g Dry Weight	10/31/12 @ 09:30	11/26/2012	UNH
			Fecal Coliform	6.24 g Dry Weight	>7.7x10e6 MPN/g Dry Weight	10/30/2012 @ 13:37	11/1/2012 @ 11:10	ASI
			Salmonella	6.24 g Dry Weight	19.40 MPN/4g	10/30/2012 @ 13:37	11/6/2012 @ 07:54	ASI
			Total Solids	27.98 Wet Weight	2.08%	10/30/2012 @ 12:50	10/31/2012 @ 07:44	ASI
			Viable helminth ova	4.16 g Dry Weight	<1 VHO/4.16 g	11/27/12 @ 14:25	11/30/12 @ 14:51	ASI
Centrifuge Biosolids MBEL# 10121037	46277-02	10/29/2012 @ 08:30	Coliphage - Male Specific	3.68 g Dry Weight	<1 PFU/3.68 g	10/30/12 @ 16:42	10/31/12 @ 11:50	ASI
			Enteric Viruses	5.41 g Dry Weight	<1 PFU/5.41 g Dry Weight	10/31/12 @ 10:35	11/26/2012	UNH
			Fecal Coliform	11.03 g Dry Weight	< 4.90 MPN/g Dry Weight	10/30/2012 @ 13:37	11/1/2012 @ 11:15	ASI
			Salmonella	11.03 g Dry Weight	<0.70 MPN/4g	10/30/2012 @ 13:37	11/1/2012 @ 07:44	ASI
			Total Solids	25.88 Wet Weight	36.77%	10/30/2012 @ 12:50	10/31/2012 @ 07:44	ASI
			Viable helminth ova	4.08 g Dry Weight	<1 VHO/4.08 g	11/27/12 @14:28	11/30/12 @ 15:05	ASI

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Filter Press Biosolids MBEL# 10121039	46277-03	10/29/2012 @ 09:15	Coliphage - Male Specific	6.59 g Dry Weight	<1 PFU/6.59 g	10/30/12 @ 16:42	10/31/12 @ 11:50	ASI
			Enteric Viruses	5.43 g Dry Weight	<1 PFU/5.43 g Dry Weight	10/31/12 @ 10:35	11/26/2012	UNH
			Fecal Coliform	19.67 g Dry Weight	< 2.75 MPN/g Dry Weight	10/30/2012 @ 13:37	11/1/2012 @ 11:15	ASI
			Salmonella	19.67 g Dry Weight	<0.39 MPN/4g	10/30/2012 @ 13:37	11/1/2012 @ 07:44	ASI
			Total Solids	25.57g Wet Weight	65.58%	10/30/2012 @ 12:50	10/31/2012 @ 07:44	ASI
			Viable helminth ova	4.32 g Dry Weight	<1 VHO/4.32 g	11/27/12 @ 14:31	11/30/12 @ 15:32	ASI

MPN = Most Probable Number, PFU = Plaque Forming Units, g = Grams

Methods Used under 40CFR Part 503

Enteric Viruses: ASTM Method D 4994-96. 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses

Fecal Coliform: Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. April 2011 EPA-821-R-10-003
Salmonella: EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14
Percent Solids: APHA, AWWA, WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.
Viable helmith ova: Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, USEPA, 1988.
Male-Specific and Somatic Coliphage: EPA Method 1602: Male-specific (F+) and Somatic Coliphage in Water by Single Agar Layer (SAL) Procedure - a modification for solid samples.

UNH = University of New Hampshire - The Virology laboratory at UNH is certified for biosolids analysis by the Pennsylvania Department of Environmental Protection (Lab. No. 68-03922).
ASI = Analytical Services, Inc. is accredited by FL-DOH (Lab No. E871011) under NELAC for analysis of selected parameters in solid matrices.

Exceptions: none

NOVEMBER 2012

ANALYTICAL SERVICES, INC.
Microbiological Testing, Research and Consulting

130 Allen Brook Lane, Williston, VT 05495 USA
1.800.723.4432 / 802.878.5138 Fax: 802.878.6765
www.analyticalservices.com

Client: Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

ASI Project ID: 46335
Date Collected: 11/12/2012
Sample Receipt: 11/13/2012

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Biosolids MBEL# 11120370	46335-01	11/12/2012 @ 0750	Enteric Viruses	5.48 g Dry Weight	<1 PFU/5.48 g Dry Weight	11/16/12 @ 09:45	12/13/2012	UNH
			Fecal Coliform	10.38 g Dry Weight	<5.21 MPN/g Dry Weight	11/13/2012 @ 10:50	11/15/2012 @ 07:50	ASI
			Salmonella	10.38 g Dry Weight	<0.75 MPN/4g	11/13/2012 @ 10:50	11/15/2012 @ 07:35	ASI
			Total Solids	25.30 g Wet Weight	34.59%	11/13/2012 @ 10:32	11/14/2012 @ 07:32	ASI
			Viable helminth ova	4.19 g Dry Weight	<1 VHO/4.18 g	12/3/2012 @ 10:27	12/5/2012 @ 13:47	ASI
Filter Press Biosolids MBEL# 11120373	46335-02	11/12/2012 @ 08:50	Enteric Viruses	4.65 g Dry Weight	<1 PFU/4.65 g Dry Weight	11/16/12 @ 09:45	12/11/2012	UNH
			Fecal Coliform	15.58 g Dry Weight	<3.47 MPN/g Dry Weight	11/13/2012 @ 10:50	11/15/2012 @ 07:50	ASI
			Salmonella	15.58 g Dry Weight	<0.50 MPN/4g	11/13/2012 @ 10:50	11/15/2012 @ 07:35	ASI
			Total Solids	25.83 g Wet Weight	51.94%	11/13/2012 @ 10:32	11/14/2012 @ 07:32	ASI
			Viable helminth ova	4.16 g Dry Weight	<1 VHO/4.15 g	12/3/2012 @ 11:08	12/5/2012 @ 14:02	ASI

MPN = Most Probable Number; PFU = Plaque Forming Units; g = Grams

Methods Used under 40CFR Part 503

Enteric Viruses: ASTM Method D 4994-96. 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses
Fecal Coliform: Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. April 2011 EPA-821-R-10-003
Salmonella: EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14
Percent Solids: APHA, AWWA, WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.
Viable helmith ova: Yanko, WA. Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, USEPA, 1988.
Berk, SG. Gunderson. Wastewater Organisms a Color Atlas, 1993.

UNH = University of New Hampshire - The Virology laboratory at UNH is certified for biosolids analysis by the Pennsylvania Department of Environmental Protection (Lab. No. 68-03922).
ASI = Analytical Services, Inc. is accredited by FL-DOH (Lab No. E871011) under NELAC for analysis of selected parameters in solid matrices

Exceptions: None

DECEMBER 2012

ANALYTICAL SERVICES, INC.
Microbiological Testing, Research and Consulting

130 Allen Brook Lane, Williston, VT 05495 USA
1.800.723.4432 / 802.878.5138 Fax. 802.878.6765
www.analyticalservices.com

Client: Moccasin Bend WWTP
455 Moccasin Bend Rd
Chattanooga, TN 37405

ASI Project ID: 46472
Date Collected: 12/09/2012 and 12/10/2012
Sample Receipt: 12/11/2012

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Biosolids MBEL# 12120340	46472-01	12/10/2012 @ 08.40	Enteric Viruses	5.00 g Dry Weight	<1 PFU/5.00 g Dry Weight	12/11/2012 @ 11:40	1/14/2013	UNH
			Fecal Coliform	10.48 g Dry Weight	<5.16 MPN/g Dry Weight	12/11/2012 @ 11:33	12/13/2012 @ 10:30	ASI
			Salmonella	10.48 g Dry Weight	<0.74 MPN/4g	12/11/2012 @ 11:33	12/13/2012 @ 07:15	ASI
			Total Solids	27.46 g Wet Weight	34.92%	12/11/2012 @ 11:54	12/12/2012 @ 07:30	ASI
			Viable Helminth Ova	5.13 g Dry Weight	<1 VHO/5.13g Dry Weight	12/20/2012 @ 09:02	12/21/2012 @ 09:15	ASI
Filter Press Biosolids MBEL# 12120343	46472-02	12/09/2012 @ 13:30	Enteric Viruses	6.50 g Dry Weight	<1 PFU/6.50 g Dry Weight	12/11/2012 @ 11:40	1/18/2013	UNH
			Fecal Coliform	17.97 g Dry Weight	<3.01 MPN/g Dry Weight	12/11/2012 @ 11:33	12/13/2012 @ 10:30	ASI
			Salmonella	17.97 g Dry Weight	<0.43 MPN/4g	12/11/2012 @ 11:33	12/13/2012 @ 07:15	ASI
			Total Solids	26.43 g Wet Weight	59.90%	12/11/2012 @ 11:54	12/12/2012 @ 07:30	ASI
			Viable Helminth Ova	4.19 g Dry Weight	<1 VHO/4.19g Dry Weight	12/20/2012 @ 09:05	12/21/2012 @ 09:18	ASI

MPN = Most Probable Number; PFU = Plaque Forming Units; g = Grams

Methods Used under 40CFR Part 503

Enteric Viruses: ASTM Method D 4994-96. 1996. US EPA Manual of Methods for Virology. EPA/600/4-84/013 (R-10). EPA 625/R-92/013 App. H. Enteric Viruses
Fecal Coliform: Method 1680: Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using Lauryl Tryptose Broth (LTB) and EC Medium. April 2011 EPA-821-R-10-003
Percent Solids: APHA, AWWA, WEF. Standard Methods for the Examination of Water and Wastewater, 20th Edition. 1998. Washington, DC. Method 2540G.
Salmonella: EPA Method 1682: Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium. EPA-821-R-06-14
Viable helmith ova: Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges. EPA-600-I67-014, USEPA, 1988.

UNH = University of New Hampshire - The Virology laboratory at UNH is certified for biosolids analysis by the Pennsylvania Department of Environmental Protection (Lab. No. 68-03922)
ASI = Analytical Services, Inc. is accredited by FL-DOH (Lab No. E871011) under NELAC for analysis of selected parameters in solid matrices.

Exceptions: **None.**

APPENDIX E
503 PCB AND TCLP ANALYSES
FOR
2012 LAND APPLICATION

40CFR 503 ANNUAL SLUDGE REPORT
MOCCASIN BEND WWTP
CHATTANOOGA, TN
NPDES PERMIT NO. TN0024210

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Mr. Paul Patterson
Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

Report Summary

Tuesday February 21, 2012

Report Number: L560263
Samples Received: 02/14/12
Client Project:

Description: Sludge Solids

2012 CENTRIFUGE BIOSOLIDS TCLP & PCBs

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Linda Cashman

Linda Cashman , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.
Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences.
Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

ESC
LAB SCIENCES
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Paul Patterson
Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

February 21,2012

ESC Sample # : L560263-01

Date Received : February 14, 2012
Description : Sludge Solids

Site ID :

Sample ID : CENTRIFUGE BIOSOLIDS

Project :

Collected By : Lisa Grasham
Collection Date : 02/13/12 08:35

Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	02/15/12 0735	MVE	1
Mercury	BDL	0.0010	mg/l	0.20	7470A	02/16/12 1034	MDC	1
Arsenic	BDL	0.050	mg/l	5.0	6010B	02/15/12 1610	ZCS	1
Barium	0.38	0.15	mg/l	100	6010B	02/15/12 1610	ZCS	1
Cadmium	BDL	0.050	mg/l	1.0	6010B	02/15/12 1610	ZCS	1
Chromium	BDL	0.050	mg/l	5.0	6010B	02/15/12 1610	ZCS	1
Lead	0.16	0.050	mg/l	5.0	6010B	02/15/12 1610	ZCS	1
Selenium	BDL	0.050	mg/l	1.0	6010B	02/15/12 1610	ZCS	1
Silver	BDL	0.050	mg/l	5.0	6010B	02/15/12 1610	ZCS	1
TCLP ZHE Extraction	-				1311	02/15/12 0800	LJN	1
TCLP Volatiles								
Benzene	BDL	0.050	mg/l	0.50	8260B	02/15/12 1815	DAH	1
Carbon tetrachloride	BDL	0.050	mg/l	0.50	8260B	02/15/12 1815	DAH	1
Chlorobenzene	BDL	0.050	mg/l	100	8260B	02/15/12 1815	DAH	1
Chloroform	BDL	0.25	mg/l	6.0	8260B	02/15/12 1815	DAH	1
1,2-Dichloroethane	BDL	0.050	mg/l	0.50	8260B	02/15/12 1815	DAH	1
1,1-Dichloroethene	BDL	0.050	mg/l	0.70	8260B	02/15/12 1815	DAH	1
2-Butanone (MEK)	BDL	0.50	mg/l	200	8260B	02/15/12 1815	DAH	1
Tetrachloroethene	BDL	0.050	mg/l	0.70	8260B	02/15/12 1815	DAH	1
Trichloroethene	BDL	0.050	mg/l	0.50	8260B	02/15/12 1815	DAH	1
Vinyl chloride	BDL	0.050	mg/l	0.20	8260B	02/15/12 1815	DAH	1
Surrogate Recovery								
Toluene-d8	104.		% Rec.	114.	8260B	02/15/12 1815	DAH	1
Dibromofluoromethane	91.5		% Rec.	125.	8260B	02/15/12 1815	DAH	1
a,a,a-Trifluorotoluene	103.		% Rec.	114.	8260B	02/15/12 1815	DAH	1
4-Bromofluorobenzene	94.6		% Rec.	128.	8260B	02/15/12 1815	DAH	1
TCLP Pesticides								
Chlordane	BDL	0.0050	mg/l	0.030	8081A	02/17/12 1643	ADF	1
Endrin	BDL	0.0050	mg/l	0.020	8081A	02/17/12 1643	ADF	1
Heptachlor	BDL	0.0050	mg/l	0.0080	8081A	02/17/12 1643	ADF	1
Lindane	BDL	0.0050	mg/l	0.40	8081A	02/17/12 1643	ADF	1
Methoxychlor	BDL	0.0050	mg/l	10.	8081A	02/17/12 1643	ADF	1
Toxaphene	BDL	0.010	mg/l	0.50	8081A	02/17/12 1643	ADF	1
Surrogate Recovery								
Decachlorobiphenyl	49.9		% Rec.	123.	8081A	02/17/12 1643	ADF	1
Tetrachloro-m-xylene	83.0		% Rec.	114.	8081A	02/17/12 1643	ADF	1

TCLP Herbicides

ESC
LAB SCIENCES
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Paul Patterson
Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

February 21,2012

ESC Sample # : L560263-01

Date Received : February 14, 2012
Description : Sludge Solids

Site ID :

Sample ID : CENTRIFUGE BIOSOLIDS

Project :

Collected By : Lisa Grasham
Collection Date : 02/13/12 08:35

Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	1.0	8151A	02/16/12 2013	KLM	1
2,4-D	BDL	0.0020	mg/l	10.	8151A	02/16/12 2013	KLM	1
Surrogate Recovery								
2,4-Dichlorophenyl Acetic Acid	85.6		% Rec.		8151A	02/16/12 2013	KLM	1
TCLP Semi-Volatiles								
1,4-Dichlorobenzene	BDL	0.10	mg/l	7.5	8270C	02/20/12 2054	ADF	1
2,4-Dinitrotoluene	BDL	0.10	mg/l	0.13	8270C	02/20/12 2054	ADF	1
Hexachlorobenzene	BDL	0.10	mg/l	0.13	8270C	02/20/12 2054	ADF	1
Hexachloro-1,3-butadiene	BDL	0.10	mg/l	0.50	8270C	02/20/12 2054	ADF	1
Hexachloroethane	BDL	0.10	mg/l	3.0	8270C	02/20/12 2054	ADF	1
Nitrobenzene	BDL	0.10	mg/l	2.0	8270C	02/20/12 2054	ADF	1
Pyridine	BDL	0.10	mg/l	5.0	8270C	02/20/12 2054	ADF	1
3&4-Methyl Phenol	BDL	0.10	mg/l	400	8270C	02/20/12 2054	ADF	1
2-Methylphenol	BDL	0.10	mg/l	200	8270C	02/20/12 2054	ADF	1
Pentachlorophenol	BDL	0.10	mg/l	100	8270C	02/20/12 2054	ADF	1
2,4,5-Trichlorophenol	BDL	0.10	mg/l	400	8270C	02/20/12 2054	ADF	1
2,4,6-Trichlorophenol	BDL	0.10	mg/l	2.0	8270C	02/20/12 2054	ADF	1
Surrogate Recovery								
2-Fluorophenol	49.3		% Rec.	87.0	8270C	02/20/12 2054	ADF	1
Phenol-d5	43.3		% Rec.	67.0	8270C	02/20/12 2054	ADF	1
Nitrobenzene-d5	86.3		% Rec.	120.	8270C	02/20/12 2054	ADF	1
2-Fluorobiphenyl	88.5		% Rec.	122.	8270C	02/20/12 2054	ADF	1
2,4,6-Tribromophenol	109.		% Rec.	148.	8270C	02/20/12 2054	ADF	1
p-Terphenyl-d14	103.		% Rec.	149.	8270C	02/20/12 2054	ADF	1

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)
Limit - Maximum Contaminant Level as established by the US EPA
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 02/21/12 17:10 Printed: 02/21/12 17:11

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Paul Patterson
Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

February 21,2012

ESC Sample # : L560263-02

Date Received : February 14, 2012
Description : Sludge Solids

Site ID :

Sample ID : CENTRIFUGE BIOSOLIDS

Project # :

Collected By : Lisa Grasham
Collection Date : 02/13/12 08:35

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	33.5	0.100	33.5	0.100	%	2540G	02/18/12
Polychlorinated Biphenyls							
PCB 1016	BDL	0.017	BDL	0.051	mg/kg	8082	02/16/12
PCB 1221	BDL	0.017	BDL	0.051	mg/kg	8082	02/16/12
PCB 1232	BDL	0.017	BDL	0.051	mg/kg	8082	02/16/12
PCB 1242	BDL	0.017	BDL	0.051	mg/kg	8082	02/16/12
PCB 1248	BDL	0.017	BDL	0.051	mg/kg	8082	02/16/12
PCB 1254	BDL	0.017	BDL	0.051	mg/kg	8082	02/16/12
PCB 1260	BDL	0.017	BDL	0.051	mg/kg	8082	02/16/12
PCBs Surrogates							
Decachlorobiphenyl	77.4		77.4		% Rec.	8082	02/16/12
Tetrachloro-m-xylene	69.3		69.3		% Rec.	8082	02/16/12

BDL - Below Detection Limit
RDL - Detection Limit- Estimated Quantitation Limit(EQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
Reported: 02/21/12 17:10 Printed: 02/21/12 17:11

Summary of Remarks For Samples Printed
02/21/12 at 17:11:20

TSR Signing Reports: 650

Sample: L560263-01 Account: MOCBENCTN Received: 02/14/12 10:30 Due Date: 02/23/12 00:00 RPT Date: 02/21/12 17:10

Sample: L560263-02 Account: MOCBENCTN Received: 02/14/12 10:30 Due Date: 02/23/12 00:00 RPT Date: 02/21/12 17:10

C220

Moccasin Bend WWTP

455 Moccasin Bend Road
Chattanooga,TN 37405

Billing information:

Debbie Davis
455 Moccasin Bend Road

Chattanooga,TN 37405

Analysis/Container/Preservative

n of Custody
Page 1 of 1

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Report to: Mr. Paul Patterson

Email: patterson_p@mail.chattanoo

Project Description: Sludge Solids

City/State Collected: Chattanooga, TN

Phone: (423) 757-5026
FAX:

Client Project #:

Lab Project #: MOCBENCTN-SLUDGE

Collected by (print): LISA GRASHAM

Site/Facility ID#:

P.O.#: PP021312-01

Collected by (signature): [signature]
Immediately
Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No X Yes
FAX? ___No ___Yes

(lab use only)
Acctnum: MOCBENCTN
Template/Prelogin: T40121/ P382882
Cooler #: JB 217
Shipped Via: FedEx Ground

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Full TCLP 1L-Clr-NoPres	SV8082 (PCBs) 4ozClr-NoPres	Total Solids 2ozClr-NoPres						Remarks/Contaminant	Sample # (lab only)
Centrifuge Biosolids	Comp.	TCLP	—	2/13/12	8:35Am	1	X									L560263-01
Centrifuge Biosolids	Comp.	SS	—	2/13/12	8:35AM	2		X	X							-02

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

5086 5829 7601

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐	Condition: (lab use only)
[signature]	2/13/12	8:40Am	Paul W. Patterson		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.7°C / Bottles Received: 3	COC Seal Intact: ___ Y ___ N ___ NA
Paul W. Patterson	2/13/12	10:20Am			
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 2/14/12 / Time: 10:30	pH Checked: / NCF:
			[signature]		

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

Mr. Paul Patterson
Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

Report Summary

Tuesday February 21, 2012

Report Number: L560268
Samples Received: 02/14/12
Client Project:

Description: Sludge Solids

2012 FILTER PRESS BIOSOLIDS TCLP + PCBs

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By: Linda Cashman

Linda Cashman , ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704/BIO041, ND - R-140. NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1, TX - T104704245-11-3, OK - 9915, PA - 68-02979

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.
Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences.
Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Paul Patterson
Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

February 21,2012

ESC Sample # : L560268-01

Date Received : February 14, 2012
Description : Sludge Solids

Site ID :

Sample ID : FILTER PRESS BIOSOLIDS

Project :

Collected By : TONY WILD
Collection Date : 02/13/12 08:35

Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	02/15/12 0735	MVE	1
Mercury	BDL	0.0010	mg/l	0.20	7470A	02/16/12 1037	MDC	1
Arsenic	BDL	0.090	mg/l	5.0	6010B	02/15/12 1614	ZCS	1.8
Barium	BDL	0.27	mg/l	100	6010B	02/15/12 1614	ZCS	1.8
Cadmium	BDL	0.090	mg/l	1.0	6010B	02/15/12 1614	ZCS	1.8
Chromium	0.55	0.090	mg/l	5.0	6010B	02/15/12 1614	ZCS	1.8
Lead	BDL	0.090	mg/l	5.0	6010B	02/15/12 1614	ZCS	1.8
Selenium	BDL	0.090	mg/l	1.0	6010B	02/15/12 1614	ZCS	1.8
Silver	BDL	0.090	mg/l	5.0	6010B	02/15/12 1614	ZCS	1.8
TCLP ZHE Extraction	-				1311	02/15/12 0800	LJN	1
TCLP Volatiles								
Benzene	BDL	0.050	mg/l	0.50	8260B	02/15/12 1832	DAH	1
Carbon tetrachloride	BDL	0.050	mg/l	0.50	8260B	02/15/12 1832	DAH	1
Chlorobenzene	BDL	0.050	mg/l	100	8260B	02/15/12 1832	DAH	1
Chloroform	BDL	0.25	mg/l	6.0	8260B	02/15/12 1832	DAH	1
1,2-Dichloroethane	BDL	0.050	mg/l	0.50	8260B	02/15/12 1832	DAH	1
1,1-Dichloroethene	BDL	0.050	mg/l	0.70	8260B	02/15/12 1832	DAH	1
2-Butanone (MEK)	BDL	0.50	mg/l	200	8260B	02/15/12 1832	DAH	1
Tetrachloroethene	BDL	0.050	mg/l	0.70	8260B	02/15/12 1832	DAH	1
Trichloroethene	BDL	0.050	mg/l	0.50	8260B	02/15/12 1832	DAH	1
Vinyl chloride	BDL	0.050	mg/l	0.20	8260B	02/15/12 1832	DAH	1
Surrogate Recovery								
Toluene-d8	100.		% Rec.	114.	8260B	02/15/12 1832	DAH	1
Dibromofluoromethane	92.8		% Rec.	125.	8260B	02/15/12 1832	DAH	1
a,a,a-Trifluorotoluene	99.2		% Rec.	114.	8260B	02/15/12 1832	DAH	1
4-Bromofluorobenzene	93.8		% Rec.	128.	8260B	02/15/12 1832	DAH	1
TCLP Pesticides								
Chlordane	BDL	0.0050	mg/l	0.030	8081A	02/17/12 1725	ADF	1
Endrin	BDL	0.0050	mg/l	0.020	8081A	02/17/12 1725	ADF	1
Heptachlor	BDL	0.0050	mg/l	0.0080	8081A	02/17/12 1725	ADF	1
Lindane	BDL	0.0050	mg/l	0.40	8081A	02/17/12 1725	ADF	1
Methoxychlor	BDL	0.0050	mg/l	10.	8081A	02/17/12 1725	ADF	1
Toxaphene	BDL	0.010	mg/l	0.50	8081A	02/17/12 1725	ADF	1
Surrogate Recovery								
Decachlorobiphenyl	40.6		% Rec.	123.	8081A	02/17/12 1725	ADF	1
Tetrachloro-m-xylene	90.8		% Rec.	114.	8081A	02/17/12 1725	ADF	1
TCLP Herbicides								

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Paul Patterson
Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

February 21,2012

ESC Sample # : L560268-01

Date Received : February 14, 2012
Description : Sludge Solids

Site ID :

Sample ID : FILTER PRESS BIOSOLIDS

Project :

Collected By : TONY WILD
Collection Date : 02/13/12 08:35

Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	1.0	8151A	02/16/12 2051	KLM	1
2,4-D	BDL	0.0020	mg/l	10.	8151A	02/16/12 2051	KLM	1
Surrogate Recovery								
2,4-Dichlorophenyl Acetic Acid	71.9		% Rec.		8151A	02/16/12 2051	KLM	1
TCLP Semi-Volatiles								
1,4-Dichlorobenzene	BDL	0.10	mg/l	7.5	8270C	02/20/12 2114	ADF	1
2,4-Dinitrotoluene	BDL	0.10	mg/l	0.13	8270C	02/20/12 2114	ADF	1
Hexachlorobenzene	BDL	0.10	mg/l	0.13	8270C	02/20/12 2114	ADF	1
Hexachloro-1,3-butadiene	BDL	0.10	mg/l	0.50	8270C	02/20/12 2114	ADF	1
Hexachloroethane	BDL	0.10	mg/l	3.0	8270C	02/20/12 2114	ADF	1
Nitrobenzene	BDL	0.10	mg/l	2.0	8270C	02/20/12 2114	ADF	1
Pyridine	BDL	0.10	mg/l	5.0	8270C	02/20/12 2114	ADF	1
3&4-Methyl Phenol	0.14	0.10	mg/l	400	8270C	02/20/12 2114	ADF	1
2-Methylphenol	BDL	0.10	mg/l	200	8270C	02/20/12 2114	ADF	1
Pentachlorophenol	BDL	0.10	mg/l	100	8270C	02/20/12 2114	ADF	1
2,4,5-Trichlorophenol	BDL	0.10	mg/l	400	8270C	02/20/12 2114	ADF	1
2,4,6-Trichlorophenol	BDL	0.10	mg/l	2.0	8270C	02/20/12 2114	ADF	1
Surrogate Recovery								
2-Fluorophenol	53.6		% Rec.	87.0	8270C	02/20/12 2114	ADF	1
Phenol-d5	43.4		% Rec.	67.0	8270C	02/20/12 2114	ADF	1
Nitrobenzene-d5	83.4		% Rec.	120.	8270C	02/20/12 2114	ADF	1
2-Fluorobiphenyl	85.0		% Rec.	122.	8270C	02/20/12 2114	ADF	1
2,4,6-Tribromophenol	114.		% Rec.	148.	8270C	02/20/12 2114	ADF	1
p-Terphenyl-d14	99.7		% Rec.	149.	8270C	02/20/12 2114	ADF	1

BDL - Below Detection Limit
Det. Limit - Estimated Quantitation Limit(EQL)
Limit - Maximum Contaminant Level as established by the US EPA
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 02/21/12 17:10 Printed: 02/21/12 17:11

ESC LAB SCIENCES
YOUR LAB OF CHOICE

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Paul Patterson
Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

February 21,2012

ESC Sample # : L560268-02

Date Received : February 14, 2012
Description : Sludge Solids

Site ID :

Sample ID : FILTER PRESS BIOSOLIDS

Project # :

Collected By : TONY WILD
Collection Date : 02/13/12 08:35

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	67.2	0.100	67.2	0.100	%	2540G	02/18/12
Polychlorinated Biphenyls							
PCB 1016	BDL	0.34	BDL	0.50	mg/kg	8082	02/16/12
PCB 1221	BDL	0.34	BDL	0.50	mg/kg	8082	02/16/12
PCB 1232	BDL	0.34	BDL	0.50	mg/kg	8082	02/16/12
PCB 1242	BDL	0.34	BDL	0.50	mg/kg	8082	02/16/12
PCB 1248	BDL	0.34	BDL	0.50	mg/kg	8082	02/16/12
PCB 1254	BDL	0.34	BDL	0.50	mg/kg	8082	02/16/12
PCB 1260	BDL	0.34	BDL	0.50	mg/kg	8082	02/16/12
PCBs Surrogates							
Decachlorobiphenyl	0.00		0.00		% Rec.	8082	02/16/12
Tetrachloro-m-xylene	0.00		0.00		% Rec.	8082	02/16/12

BDL - Below Detection Limit
RDL - Detection Limit- Estimated Quantitation Limit(EQL)
Note:
The reported analytical results relate only to the sample submitted.
This report shall not be reproduced, except in full, without the written approval from ESC.
Reported: 02/21/12 17:10 Printed: 02/21/12 17:11
L560268-02 (PCBS) - Dilution due to matrix

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L560268-01	WG578664	SAMP	Arsenic	R2037973	O
	WG578664	SAMP	Barium	R2037973	O
	WG578664	SAMP	Cadmium	R2037973	O
	WG578664	SAMP	Lead	R2037973	O
	WG578664	SAMP	Selenium	R2037973	O
	WG578664	SAMP	Silver	R2037973	O
L560268-02	WG578577	SAMP	PCB 1016	R2040094	O
	WG578577	SAMP	PCB 1221	R2040094	O
	WG578577	SAMP	PCB 1232	R2040094	O
	WG578577	SAMP	PCB 1242	R2040094	O
	WG578577	SAMP	PCB 1248	R2040094	O
	WG578577	SAMP	PCB 1254	R2040094	O
	WG578577	SAMP	PCB 1260	R2040094	O
	WG578577	SAMP	Decachlorobiphenyl	R2040094	J7
	WG578577	SAMP	Tetrachloro-m-xylene	R2040094	J7

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J7	Surrogate recovery limits cannot be evaluated; surrogates were diluted out
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods,it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Differrence.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromotography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
02/21/12 at 17:11:17

TSR Signing Reports: 650

Sample: L560268-01 Account: MOCBENCTN Received: 02/14/12 10:30 Due Date: 02/23/12 00:00 RPT Date: 02/21/12 17:10

Sample: L560268-02 Account: MOCBENCTN Received: 02/14/12 10:30 Due Date: 02/23/12 00:00 RPT Date: 02/21/12 17:10

C221

Moccasin Bend WWTP

455 Moccasin Bend Road
Chattanooga,TN 37405

Billing information:

Debbie Davis
455 Moccasin Bend Road

Chattanooga,TN 37405

Analysis/Container/Preservative

Page 1 of 1 of Custody

ESC LAB SCIENCES
12065 Lebanon Road
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Phone: (615) 758-5858
Fax: (615) 758-5859

Report to: Mr. Paul Patterson

Email: patterson_p@mail.chattanoo

Project Description: Sludge Solids

City/State Collected: Chattanooga, TN

Phone: (423) 757-5026
FAX:

Client Project #:

Lab Project #: MOCBENCTN-SLUDGE

Collected by (print): TONY WILD

Site/Facility ID#:

P.O.#: PP021312-02

Collected by (signature): Immediately Packed on Ice N __ Y ✓

Rush? (Lab MUST Be Notified)
__ Same Day 200%
__ Next Day 100%
__ Two Day 50%
__ Three Day 25%

Date Results Needed

Email? __No X Yes
FAX? __No __Yes

Acctnum: MOCBENCTN (lab use only)
Template/Prelogin: T40121/ P382883
Cooler #: 30 2/7
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No of Cntrs	Full TCLP 1L-Clr-NoPres	SV8082 (PCBs) 4ozClr-NoPres	Total Solids 2ozClr-NoPres					Remarks/Contaminant	Sample # (lab only)
Filter Press Biosolids	Comp.	TCLP	—	2/13/12	8:35AM	1	X								L560268-01
Filter Press Biosolids	Comp.	SS	—	2/13/12	8:35Am	2		X	X						-02

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

5086 5829 7601

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐	Condition: (lab use only)
[signature]	2/13/12	8:40Am	Paul W. Patterson		OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.7°C Bottles Received: 3	COC Seal Intact: ___ Y ___ N ___ NA
Paul W. Patterson	2/13/12	10:20Am			
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 2/14/12 Time: 10:30	pH Checked: / NCF:
			[signature]		

APPENDIX F
503 GRAB SAMPLES
FECAL COLIFORM ANALYSES
FOR
2012 LAND APPLICATION

40CFR 503 ANNUAL SLUDGE REPORT
MOCCASIN BEND WWTP
CHATTANOOGA, TN
NPDES PERMIT NO. TN0024210

Pathogen Requirement (Alternative 1)
Basis of Part 503 Fecal Coliform Testing Plan. Table 6, page 135, "Plain English Guide" – 'Geometric means of seven (7) samples taken over a two (2) week period'.

White House Manual (EPA/625/R.92/013) – states on page 81-82:
"It is recommended that multiple samples ($\geq$7) be taken over a period of two (2) weeks in order to adequately represent sludge quality".
See also, p. 78, first full paragraph.

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
01/01/12		
01/02/12		
01/03/12	<1,000	<1,000
01/04/12	<1,000	<1,000
01/05/12	<1,000	<1,000
01/06/12	<1,000	<1,000
01/07/12		
01/08/12		
01/09/12	<1,000	<1,000
01/10/12	<1,000	<1,000
01/11/12	<1,000	<1,000
01/12/12		
01/13/12		
01/14/12		
01/15/12		
01/16/12		
01/17/12		
01/18/12		
01/19/12		
01/20/12		
01/21/12		
01/22/12		
01/23/12		
01/24/12		
01/25/12		
01/26/12		
01/27/12		
01/28/12		
01/29/12		
01/30/12		
01/31/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
02/01/12	<1,000	
02/02/12	<1,000	
02/03/12	<1,000	
02/04/12		
02/05/12		
02/06/12	<1,000	
02/07/12	<1,000	<1,000
02/08/12	<1,000	<1,000
02/09/12	<1,000	<1,000
02/10/12		<1,000
02/11/12		
02/12/12		
02/13/12		<1,000
02/14/12		<1,000
02/15/12		<1,000
02/16/12		
02/17/12		
02/18/12		
02/19/12		
02/20/12		
02/21/12		
02/22/12		
02/23/12		
02/24/12		
02/25/12		
02/26/12		
02/27/12		
02/28/12		
02/29/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
03/01/12	<1,000	<1,000
03/02/12		
03/03/12	<1,000	<1,000
03/04/12		
03/05/12	<1,000	<1,000
03/06/12	<1,000	<1,000
03/07/12	<1,000	
03/08/12	<1,000	
03/09/12	<1,000	
03/10/12		
03/11/12		
03/12/12		
03/13/12		<1,000
03/14/12		<1,000
03/15/12		<1,000
03/16/12		
03/17/12		
03/18/12		
03/19/12		
03/20/12		
03/21/12		
03/22/12		
03/23/12		
03/24/12		
03/25/12		
03/26/12		
03/27/12		
03/28/12		
03/29/12		
03/30/12		
03/31/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
04/01/12		
04/02/12	<1,000	<1,000
04/03/12	<1,000	<1,000
04/04/12	<1,000	<1,000
04/05/12	<1,000	<1,000
04/06/12		
04/07/12		
04/08/12		
04/09/12	<1,000	
04/10/12		
04/11/12	<1,000	<1,000
04/12/12	<1,000	<1,000
04/13/12		<1,000
04/14/12		
04/15/12		
04/16/12		
04/17/12		
04/18/12		
04/19/12		
04/20/12		
04/21/12		
04/22/12		
04/23/12		
04/24/12		
04/25/12		
04/26/12		
04/27/12		
04/28/12		
04/29/12		
04/30/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
05/01/12	<1,000	<1,000
05/02/12	<1,000	<1,000
05/03/12	<1,000	<1,000
05/04/12	<1,000	<1,000
05/05/12		
05/06/12		
05/07/12	<1,000	<1,000
05/08/12	<1,000	<1,000
05/09/12	<1,000	<1,000
05/10/12		
05/11/12		
05/12/12		
05/13/12		
05/14/12		
05/15/12		
05/16/12		
05/17/12		
05/18/12		
05/19/12		
05/20/12		
05/21/12		
05/22/12		
05/23/12		
05/24/12		
05/25/12		
05/26/12		
05/27/12		
05/28/12		
05/29/12		
05/30/12		
05/31/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
06/01/12		
06/02/12		
06/03/12		
06/04/12	<1,000	<1,000
06/05/12	<1,000	<1,000
06/06/12	<1,000	<1,000
06/07/12	<1,000	<1,000
06/08/12	<1,000	<1,000
06/09/12		
06/10/12		
06/11/12	<1,000	<1,000
06/12/12	<1,000	<1,000
06/13/12		
06/14/12		
06/15/12		
06/16/12		
06/17/12		
06/18/12		
06/19/12		
06/20/12		
06/21/12		
06/22/12		
06/23/12		
06/24/12		
06/25/12		
06/26/12		
06/27/12		
06/28/12		
06/29/12		
06/30/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
07/01/12		
07/02/12	<1,000	
07/03/12	<1,000	<1,000
07/04/12		
07/05/12	<1,000	<1,000
07/06/12	<1,000	<1,000
07/07/12		
07/08/12		
07/09/12	<1,000	<1,000
07/10/12	<1,000	<1,000
07/11/12	<1,000	<1,000
07/12/12		<1,000
07/13/12		
07/14/12		
07/15/12		
07/16/12		
07/17/12		
07/18/12		
07/19/12		
07/20/12		
07/21/12		
07/22/12		
07/23/12		
07/24/12		
07/25/12		
07/26/12		
07/27/12		
07/28/12		
07/29/12		
07/30/12		
07/31/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
08/01/12	<1,000	<1,000
08/02/12	<1,000	<1,000
08/03/12	<1,000	<1,000
08/04/12		
08/05/12		
08/06/12	<1,000	<1,000
08/07/12	<1,000	<1,000
08/08/12	<1,000	<1,000
08/09/12	<1,000	<1,000
08/10/12		
08/11/12		
08/12/12		
08/13/12		
08/14/12		
08/15/12		
08/16/12		
08/17/12		
08/18/12		
08/19/12		
08/20/12		
08/21/12		
08/22/12		
08/23/12		
08/24/12		
08/25/12		
08/26/12		
08/27/12		
08/28/12		
08/29/12		
08/30/12		
08/31/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
09/01/12		
09/02/12		
09/03/12		
09/04/12		
09/05/12		
09/06/12	<1,000	<1,000
09/07/12	<1,000	<1,000
09/08/12		
09/09/12		
09/10/12	<1,000	<1,000
09/11/12	<1,000	<1,000
09/12/12	<1,000	<1,000
09/13/12	<1,000	<1,000
09/14/12	<1,000	
09/15/12		
09/16/12		
09/17/12		
09/18/12		
09/19/12		<1,000
09/20/12		
09/21/12		
09/22/12		
09/23/12		
09/24/12		
09/25/12		
09/26/12		
09/27/12		
09/28/12		
09/29/12		
09/30/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
10/01/12	<1,000	<1,000
10/02/12	<1,000	<1,000
10/03/12	<1,000	<1,000
10/04/12	<1,000	<1,000
10/05/12	<1,000	<1,000
10/06/12		
10/07/12		
10/08/12	<1,000	<1,000
10/09/12	<1,000	<1,000
10/10/12		
10/11/12		
10/12/12		
10/13/12		
10/14/12		
10/15/12		
10/16/12		
10/17/12		
10/18/12		
10/19/12		
10/20/12		
10/21/12		
10/22/12		
10/23/12		
10/24/12		
10/25/12		
10/26/12		
10/27/12		
10/28/12		
10/29/12		
10/30/12		
10/31/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
11/01/12	<1,000	
11/02/12	<1,000	
11/03/12		
11/04/12		
11/05/12	<1,000	
11/06/12	<1,000	<1,000
11/07/12	<1,000	<1,000
11/08/12	<1,000	<1,000
11/09/12	<1,000	<1,000
11/10/12		
11/11/12		
11/12/12	<1,000	<1,000
11/13/12		<1,000
11/14/12		<1,000
11/15/12		<1,000
11/16/12		
11/17/12		
11/18/12		
11/19/12		
11/20/12		
11/21/12		
11/22/12		
11/23/12		
11/24/12		
11/25/12		
11/26/12		
11/27/12		
11/28/12		
11/29/12		
11/30/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
LABORATORY ANALYSIS SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
FECAL COLIFORM

DATE	CENTRIFUGE (cfu/g)	FILTER PRESS (cfu/g)
12/01/12		
12/02/12		
12/03/12	<1,000	<1,000
12/04/12	<1,000	<1,000
12/05/12	<1,000	<1,000
12/06/12	<1,000	<1,000
12/07/12	<1,000	<1,000
12/08/12		
12/09/12		
12/10/12	<1,000	<1,000
12/11/12	<1,000	<1,000
12/12/12		
12/13/12		
12/14/12		
12/15/12		
12/16/12		
12/17/12		
12/18/12		
12/19/12		
12/20/12		
12/21/12		
12/22/12		
12/23/12		
12/24/12		
12/25/12		
12/26/12		
12/27/12		
12/28/12		
12/29/12		
12/30/12		
12/31/12		
Geometric Mean	<1,000	<1,000

OPS Database: Solids Handling OPS Report Name: Lab Fecal Grab Report

APPENDIX G
503 GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (s.u.)
FOR
2012 LAND APPLICATION

40CFR 503 ANNUAL SLUDGE REPORT
MOCCASIN BEND WWTP
CHATTANOOGA, TN
NPDES PERMIT NO. TN0024210

The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali, shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours. EPA 503.33(b) (6)

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
01/01/12						
01/02/12						
01/03/12				11.9	11.9	12.6
01/04/12				12.0	12.0	12.2
01/05/12				12.2	11.8	12.4
01/06/12				12.1	11.8	12.6
01/07/12						
01/08/12						
01/09/12				12.3	12.3	12.5
01/10/12				12.2	12.1	12.4
01/11/12				11.9	12.1	12.3
01/12/12				12.0	11.9	12.4
01/13/12				12.0	12.0	12.4
01/14/12						
01/15/12						
01/16/12						
01/17/12	12.0	12.3	12.5	12.1	12.3	12.6
01/18/12	12.0	12.1	12.4	11.9	12.3	12.4
01/19/12	12.0	12.0	12.2	12.2	12.3	12.5
01/20/12	12.1	12.0	12.4	12.0	12.0	12.3
01/21/12						
01/22/12						
01/23/12	12.2	12.0	12.8	11.9	11.9	12.6
01/24/12	12.2	12.4	12.2	12.5	12.5	12.3
01/25/12	12.3	12.4	12.4	11.9	12.3	12.4
01/26/12	12.4	12.5	12.4	12.4	12.5	12.6
01/27/12	12.5	12.2	12.6	12.3	12.4	12.6
01/28/12						
01/29/12						
01/30/12	12.1	12.2	12.5	12.3	12.4	12.5
01/31/12	12.2	12.3	12.5	12.5	12.1	12.9

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
02/01/12	12.2	12.2	12.4	11.9	11.7	12.3
02/02/12	12.3	12.3	12.3	12.1	11.9	12.5
02/03/12	12.2	12.2	12.6	12.0	11.9	12.5
02/04/12						
02/05/12						
02/06/12				12.0	12.2	12.2
02/07/12				12.1	11.8	12.4
02/08/12				12.2	12.2	12.3
02/09/12				12.1	12.0	12.4
02/10/12				11.9	12.3	12.5
02/11/12						
02/12/12						
02/13/12	12.1	12.1	12.4	12.2	12.3	12.5
02/14/12	12.2	12.1	12.4	12.0	12.1	12.4
02/15/12	12.1	12.4	12.3	12.0	12.3	12.3
02/16/12	12.3	12.1	12.7	12.1	12.0	12.6
02/17/12				11.9	12.0	12.3
02/18/12						
02/19/12						
02/20/12				12.3	12.4	12.5
02/21/12				12.1	12.1	12.3
02/22/12				12.0	12.0	12.1
02/23/12				12.0	12.1	12.4
02/24/12				12.0	12.1	12.4
02/25/12						
02/26/12						
02/27/12				12.2	12.2	12.4
02/28/12				12.1	12.4	12.2
02/29/12				12.1	12.4	12.5

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
03/01/12				12.2	12.2	12.1
03/02/12				11.8	12.3	12.3
03/03/12						
03/04/12						
03/05/12	12.2	12.2	12.2	12.1	12.3	12.4
03/06/12	12.0	12.2	12.4	12.1	12.2	12.4
03/07/12	12.3	12.3	12.2	12.2	12.3	12.2
03/08/12	12.1	12.3	12.3	12.3	12.3	12.2
03/09/12	12.2	12.3	12.6	12.1	12.2	12.5
03/10/12						
03/11/12						
03/12/12				12.2	12.2	12.2
03/13/12				11.9	11.9	12.3
03/14/12				12.1	12.2	12.1
03/15/12	12.2			12.0	12.1	12.4
03/16/12	12.1	12.2	12.6	12.2	12.3	12.6
03/17/12	12.0	12.2	12.3	12.3	12.0	12.3
03/18/12						
03/19/12						
03/20/12						
03/21/12				12.2	12.2	12.3
03/22/12				12.0	12.1	12.5
03/23/12				12.2	12.2	12.7
03/24/12						
03/25/12						
03/26/12				12.1	12.2	12.2
03/27/12				12.1	12.2	11.9
03/28/12				12.0	12.1	12.0
03/29/12				12.4	12.5	20.6
03/30/12				12.3	12.5	12.4
03/31/12						

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
04/01/12						
04/02/12	12.4	12.4	12.3	12.4	12.2	12.0
04/03/12	12.4	12.3	12.1	12.1	12.2	11.8
04/04/12	12.4	12.3	12.4	12.3	12.3	12.2
04/05/12	12.2	12.4	12.3	12.0	12.3	12.1
04/06/12						
04/07/12						
04/08/12						
04/09/12				12.4	12.5	12.2
04/10/12				12.3	12.5	12.4
04/11/12				12.4	12.6	11.9
04/12/12				12.4	12.4	12.2
04/13/12				12.5	12.6	12.4
04/14/12						
04/15/12						
04/16/12				12.4	12.4	12.1
04/17/12				12.2	12.2	11.9
04/18/12				12.4	12.3	12.2
04/19/12				12.4	12.5	12.1
04/20/12				12.3	12.2	12.4
04/21/12						
04/22/12						
04/23/12				12.3	12.3	12.1
04/24/12				12.0	12.1	12.3
04/25/12				12.4	12.5	12.3
04/26/12				12.5	12.5	12.5
04/27/12				12.1	12.3	12.3
04/28/12						
04/29/12						
04/30/12				12.0	12.3	12.3

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
05/01/12				12.3	12.2	12.2
05/02/12				12.3	12.2	12.4
05/03/12				12.0	12.2	12.2
05/04/12				12.3	12.5	12.5
05/05/12						
05/06/12						
05/07/12				12.4	12.5	12.3
05/08/12				12.4	12.2	12.6
05/09/12				12.4	12.1	12.1
05/10/12				12.4	12.5	12.2
05/11/12				12.2	12.4	12.5
05/12/12						
05/13/12						
05/14/12	12.3	12.4	12.5	12.4	12.1	12.5
05/15/12	12.3	12.3	12.2	12.3	12.3	12.2
05/16/12	12.4	12.4	12.3	12.4	12.4	12.4
05/17/12	12.4	12.4	12.3	12.2	12.4	12.4
05/18/12	12.1	12.5	12.5	12.3	12.6	12.4
05/19/12						
05/20/12						
05/21/12				12.5	12.6	12.4
05/22/12				12.7	12.6	12.3
05/23/12				12.7	12.5	12.4
05/24/12				12.7	12.8	12.3
05/25/12				12.7	12.6	12.3
05/26/12						
05/27/12						
05/28/12						
05/29/12				12.5	12.4	12.5
05/30/12				12.6	12.5	12.1
05/31/12				12.4	12.6	12.2

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
06/01/12				12.5	12.7	12.4
06/02/12						
06/03/12						
06/04/12	12.3	12.3	12.4	12.5	12.6	12.4
06/05/12	12.2	12.0	12.3	12.4	12.5	12.3
06/06/12	12.4	12.0	12.4	12.4	12.5	12.4
06/07/12	12.5	12.5	12.0	12.5	12.5	12.1
06/08/12	12.4	12.1	12.5	12.5	12.6	12.5
06/09/12						
06/10/12						
06/11/12				12.5	12.4	12.5
06/12/12				12.5	12.4	12.5
06/13/12				12.5	12.0	12.4
06/14/12				12.4	12.5	12.5
06/15/12				12.4	12.4	12.6
06/16/12						
06/17/12						
06/18/12				12.4	12.4	12.5
06/19/12				12.6	12.3	12.4
06/20/12				12.6	12.4	12.4
06/21/12				12.5	12.5	12.3
06/22/12				12.6	12.3	12.3
06/23/12						
06/24/12						
06/25/12	12.5	12.2	12.5	12.5	12.5	12.5
06/26/12	12.3	12.5	12.5	11.9	12.4	12.5
06/27/12	12.4	12.3	12.6	12.7	12.5	12.6
06/28/12	12.4	12.2	12.4	12.4	12.6	12.4
06/29/12	12.4	12.4	12.4	12.5	12.6	12.4
06/30/12						

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
07/01/12						
07/02/12				12.4	12.5	12.5
07/03/12				12.4	12.4	12.2
07/04/12				12.4	12.4	12.3
07/05/12				12.5	12.6	12.3
07/06/12				12.4	12.5	12.6
07/07/12						
07/08/12						
07/09/12				12.5	12.5	12.2
07/10/12				12.4	12.5	12.1
07/11/12				12.3	12.4	12.4
07/12/12				12.2	12.3	12.5
07/13/12				12.5	12.5	12.6
07/14/12						
07/15/12						
07/16/12				12.4	12.3	12.5
07/17/12				12.4	12.5	12.4
07/18/12				12.5	12.4	12.2
07/19/12				12.5	12.5	12.5
07/20/12				12.3	12.4	12.4
07/21/12						
07/22/12						
07/23/12	12.3	12.4	12.4	12.5	12.4	12.6
07/24/12	12.5	12.4	12.5	12.5	12.2	12.5
07/25/12	12.4	12.4	12.5	12.4	12.3	12.5
07/26/12	12.4	12.4	12.5	12.4	12.4	12.6
07/27/12	12.4	12.4	12.4	12.5	12.5	12.6
07/28/12						
07/29/12						
07/30/12	12.2	12.3	12.6	12.2	12.3	12.4
07/31/12	12.3	12.4	12.5	12.4	12.4	12.5

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
08/01/12	12.1	12.3	12.6	12.4	12.3	12.6
08/02/12	12.2	12.3	12.6	12.3	12.3	12.6
08/03/12				12.3	12.3	12.2
08/04/12						
08/05/12						
08/06/12				12.3	12.2	12.6
08/07/12				12.3	12.4	12.4
08/08/12				12.2	12.3	12.3
08/09/12				12.6	12.4	12.1
08/10/12				12.1	12.5	
08/11/12				12.3	12.4	12.0
08/12/12						
08/13/12				12.9	12.8	12.4
08/14/12				12.9	13.0	12.6
08/15/12				13.0	13.0	12.5
08/16/12				12.7	12.6	12.2
08/17/12				12.7	12.2	12.4
08/18/12						
08/19/12						
08/20/12				12.5	12.5	12.4
08/21/12				12.4	12.5	12.4
08/22/12				12.7	12.4	12.4
08/23/12				12.4	12.3	12.5
08/24/12				12.4	12.4	12.5
08/25/12						
08/26/12						
08/27/12						
08/28/12				12.4	12.3	12.6
08/29/12				12.1	12.4	12.4
08/30/12				12.2	12.3	12.5
08/31/12				12.4	12.1	12.5

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
09/01/12						
09/02/12						
09/03/12						
09/04/12	12.0	11.9	11.9	12.1	12.0	12.1
09/05/12	12.0	12.2	12.5	11.9	12.0	12.5
09/06/12	12.2	12.2	12.7	12.0	12.0	12.6
09/07/12				12.0	12.1	12.5
09/08/12						
09/09/12						
09/10/12	12.3	12.4	12.4	12.1	12.1	12.6
09/11/12	12.2	12.2	12.8	12.4	12.2	12.8
09/12/12	12.2	12.3	12.5	12.2	12.3	12.6
09/13/12	12.3	12.5	12.5	12.2	12.2	12.6
09/14/12	12.3	12.4	12.5	11.9	12.0	12.6
09/15/12						
09/16/12						
09/17/12				12.3	12.2	12.5
09/18/12				12.3	12.2	12.3
09/19/12				12.1	12.2	12.5
09/20/12				12.1	12.2	12.3
09/21/12				12.0	12.1	12.4
09/22/12						
09/23/12						
09/24/12				12.3	12.3	12.4
09/25/12				12.4	12.6	12.5
09/26/12				12.5	12.6	12.4
09/27/12				12.4	12.5	12.3
09/28/12				12.5	12.5	12.3
09/29/12						
09/30/12						

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
10/01/12				12.4	12.4	12.5
10/02/12				12.5	12.4	12.9
10/03/12				12.3	12.2	12.5
10/04/12				12.2	12.5	12.3
10/05/12				12.3	12.2	12.2
10/06/12						
10/07/12						
10/08/12				12.2	12.3	12.4
10/09/12				12.4	12.1	12.3
10/10/12				12.2	12.5	12.3
10/11/12				12.5	12.4	12.3
10/12/12				12.7	12.7	12.1
10/13/12						
10/14/12						
10/15/12				12.3	12.0	12.3
10/16/12				12.4	12.3	12.7
10/17/12				12.1	12.2	12.2
10/18/12				12.4	12.3	12.6
10/19/12				12.4	12.7	12.2
10/20/12						
10/21/12						
10/22/12	12.4	12.2	12.5	12.4	12.2	12.5
10/23/12	12.1	12.1	12.7	12.4	12.4	12.5
10/24/12	12.1	12.2	12.3	12.3	12.3	12.3
10/25/12	12.1	12.1	12.8	12.2	12.2	12.8
10/26/12				12.2	12.2	12.8
10/27/12						
10/28/12						
10/29/12				12.4	12.4	12.3
10/30/12				12.3	12.2	12.2
10/31/12				12.5	12.2	12.3

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
11/01/12				12.2	12.2	12.6
11/02/12				12.2	12.1	12.4
11/03/12						
11/04/12						
11/05/12				12.0	12.0	12.4
11/06/12				12.7	12.1	12.4
11/07/12				11.8	12.1	12.1
11/08/12				11.9	11.9	12.2
11/09/12				12.4	12.5	12.5
11/10/12						
11/11/12						
11/12/12				12.4	12.5	12.8
11/13/12				12.3	12.4	12.5
11/14/12				12.3	12.4	12.2
11/15/12				12.5	12.3	12.2
11/16/12				12.4	12.4	12.3
11/17/12						
11/18/12						
11/19/12				12.5	12.4	12.2
11/20/12				12.5	12.1	12.2
11/21/12				12.4	12.5	12.7
11/22/12				12.1	11.9	12.5
11/23/12						
11/24/12						
11/25/12						
11/26/12				12.6	12.3	12.5
11/27/12				12.5	12.6	12.4
11/28/12				12.2	12.4	12.4
11/29/12				12.1	12.0	12.3
11/30/12				12.2	12.0	12.1

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report

MOCCASIN BEND WASTEWATER TREATMENT PLANT
DATA SUMMARY

ANALYSIS OF LAND APPLICATION GRAB SAMPLES
TEMPERATURE-COMPENSATED pH (S.U.)

DATE	CENTRIFUGE BUILDING #1 Time from Production			CENTRIFUGE BUILDING #2 Time from Production		
	O Hours	2 Hours	24 Hours	O Hours	2 Hours	24 Hours
12/01/12						
12/02/12						
12/03/12				11.9	12.2	12.3
12/04/12				12.1	12.2	12.2
12/05/12				12.5	12.6	12.3
12/06/12				12.2	12.2	12.4
12/07/12				12.2	12.4	12.5
12/08/12						
12/09/12						
12/10/12				12.5	12.3	12.3
12/11/12				12.2	12.2	12.2
12/12/12				12.5	12.1	12.3
12/13/12				12.4	12.2	12.5
12/14/12				12.2	12.0	12.5
12/15/12						
12/16/12						
12/17/12				12.3	12.3	12.2
12/18/12				12.6	12.6	12.3
12/19/12				12.4	12.2	12.0
12/20/12				12.4	12.3	12.2
12/21/12				12.3	12.2	12.3
12/22/12				12.1	12.1	12.2
12/23/12						
12/24/12						
12/25/12						
12/26/12				12.4	12.4	12.3
12/27/12				12.4	12.2	12.5
12/28/12				12.3	12.2	12.4
12/29/12				12.4	12.3	12.1
12/30/12						
12/31/12						

Note: On days when a centrifuge does not run on day shift, only a 24-hour pH will appear.

OPS Database: Solids Handling

OPS Report Name: Lab Biosolids Adjusted pH Report