City of Chattanooga

Mayor Andy Berke

February 17, 2014

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 2013

To Whom It May Concern:

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.
Director, Waste Resources Division

cc: Donald L. Norris
Mike Patrick
TDEC-DWPC Chattanooga
TDEC-DWPC Nashville
Synagro South, LLC

455 Moccasin Bend Road • Chattanooga, TN 37405 • Phone 423.757.5026 • Fax 423.757.4904 • www.chattanooga.gov

2013 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.
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. 1443

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

Mr. Brian Lessman
Plant Manager
Moccasin Bend Wastewater Treatment Plant
455 Moccasin Bend Road
Chattanooga, TN 37405
Phone: (423) 757-5026
Fax: (423) 757-4904
E-mail: lessman_b@chattanooga.gov

Tennessee Wastewater Operator Certification No. 1226

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:

Virtually 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 24,557 dry metric tons (67,534 wet tons) of biosolids land applied on 2,033 hectares (5,024 acres). There is a total of 13,784 hectares (34,062 acres) of land that either has participated in Chattanooga's land application program or is currently available for land application.

Please note on Appendix A there is a slight difference between the quantities produced by the City and the quantities hauled and land applied by Synagro South, LLC. This difference is due to amounts of biosolids in storage on farms on January 1, 2013 and December 31, 2013 waiting for application, as well as variations from calculated biosolids produced versus biosolids weighed by the plant scales as they are being transported to the land application sites.

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

All biosolids were land applied during 2013 by Synagro South, LLC. Biosolids were applied in Bledsoe, Hamilton, Marion, Meigs, Grundy, Rhea, and Sequatchie Counties in Tennessee. See **Appendix B (1),** 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. The City will receive a Third-Party Re-Verification Audit of the program in March, 2014. Chattanooga became the 23rd agency to have received this certification, the first (1st) in Tennessee.

2.0 SPECIFIC 40 CFR 503 REQUIREMENTS

2.1 Applicable Conditions

Virtually all biosolids were land applied during 2013. As described in Section 3.1, approximately 45.13 wet tons were disposed of in the City Landfill, located at 9327 Birchwood Pike, Harrison, TN 37341, for the reason that Vector Attraction Reduction requirements of 503.33 (b) (6) were not met in this load.

The City of Chattanooga continued its contract with Synagro South, LLC for the land application of the biosolids during the year 2013.

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 WWTP 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 land applied biosolids were lime stabilized to meet the Vector Attraction Reduction requirements of 503.33 (b) (6). **Appendix G** summarizes the pH testing performed. After review of the data during the first part of the year, Standard Operating Procedures were developed to ensure accurate test results. These procedures went into effect in May, 2013. On August 26, 2013, and on September 9, 2013, portions of biosolids that did not meet Vector Attraction Reduction Requirements were not land applied and were disposed of in the City Landfill, as described in Section 3.1.

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 2013 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 2013 was approximately 52,130 +/- wet tons (15,374 +/- dry tons). This material was land applied for final disposal in 2013.

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 2013 was approximately 10,597 +/- wet tons (3,278 +/- dry tons). This material was land applied for final disposal in 2013.

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, the data resulting from process improvements during 2013 indicate that a Class A EQ product has been produced since September, 2013.

2.2.2 Other Practices

2.2.2.1 General

In 2013, all biosolids produced were considered Class B for land application purposes.

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%.

Future improvements to this process, if shown to be cost effective, will allow the City to fully benefit from destruction of volatile solids and to move forward to optimize the

digester 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

January through October 2013

Samples of biosolids from each production method were collected daily and composited weekly. The 503 inorganic analyses and fecal coliform analyses were performed on these composite samples. At the beginning of each month, one grab sample was collected daily from each production line when biosolids were being hauled and analyzed for fecal coliforms until a total of seven samples were obtained. Analysis of centrifuge cake pH was performed daily when the centrifuges were in operation. Zero- and 2-hour measurements were performed in the operator laboratory, while 24 hour measurements were completed in the central laboratory. The same is true for the filter presses. For the first cycle from each press each day, the pH of conditioned sludge was measured at 0 hours and 2 hours by the operators, and the pH of the final product was measured at ≥24 hours in the central laboratory.

Once each month a weekly composited sample from each dewatering train was split and analyzed for the 503 pathogen analyses (enteric viruses, fecal coliform, helminth ova, and Salmonella sp. bacteria). On a quarterly basis, a one-week sample of the feed sludge to each of the dewatering trains was analyzed for the 503 pathogen analyses (enteric viruses, fecal coliform, helminth ova, Salmonella sp. bacteria) plus male-specific coliphage. These samples corresponded time-wise with the composites of the final product samples to document removal of pathogens during dewatering and were performed by a contract laboratory.

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

Beginning November 1, 2013

In the fall of 2013, once goals documenting Class A/EQ material were being reached more consistently, a decision was made to reduce the amount of biological testing to just that which was deemed vital to biosolids program compliance and validation. Therefore, as of November 1, 2013, the following changes were made. All in-house biological analyses performed on composite samples were discontinued. Analysis of enteric viruses, viable helminth ova, *Salmonella*, fecal coliforms and male-specific coliphage were reduced to twice each year on feed and final product for each dewatering process. The feed samples were composites of the previous week, while the final product samples were grabs collected on the day of shipment to the outside lab. One filter press grab sample each month was analyzed for *Salmonella* on one of the seven grab samples that was being analyzed for fecal coliforms.

2.3.2 Methodologies

The laboratory methodologies for analyzing samples of the biosolids generated by the Moccasin Bend WWTP are those cited in 503.8 (b) and the State of Tennessee's *Guidelines for the Land Application and Surface Disposal of Biosolids*.

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

Total solids and nutrient analysis were performed according to APHA *Standard Methods, 18th Edition*, 1992. Fecal coliform testing for all centrifuge samples and for January's filter press samples were also conducted according to this method (membrane filtration). Fecal coliform testing on filter press samples from February 2013 forward was done using EPA Method 1680.

Additional analyses were performed as follows:

Enteric viruses	ASTM Method D 4994-96, 1996
Salmonella	EPA Method 1682
Viable helminth ova	Yanko, W.A. EPA, 1988
Male-specific coliphage	EPA Method 1602
TCLP	EPA SW-846 Method 1311
PCBs	EPA Method 1882

2.3.3 Laboratories

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

Mr. Paul Patterson
Manager of Laboratory Services
Moccasin Bend Wastewater Treatment Plant
455 Moccasin Bend Road
Chattanooga, TN37405
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, VT05495

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

Fecal coliform analysis and *Salmonella* on grab samples from the filter press process are performed by:

Microbac Laboratories, Inc.
Knoxville Division
505 E. Broadway Avenue
Maryville, TN 37804

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 this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

02/17/2014	Signature on file **********	(423) 757-5026
Date	Alice L. Cannella, P.E. Director, Waste Resources Division	Telephone Number

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 2013. 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

Approximately 45.13 wet tons (0.07 percent) were disposed of in the City Landfill, located at 9327 Birchwood Pike, Harrison, TN 37341, for the reason that Vector Attraction Reduction requirements of 503.33 (b) (6) were not met in these biosolids.

APPENDIX A
2013 QUANTITIES OF BIOSOLIDS PRODUCED

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

Biosolids Summary 2013

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	1,184.30	5,652.15	140.60	271.10	1,324.90	5,923.25	1,201.95	1,785.43	6,292.42	1,619.74
February	988.03	4,469.98	320.10	578.50	1,308.13	5,048.48	1,186.74	1,374.26	5,591.18	1,246.73
March	1,021.96	4,816.88	491.60	958.00	1,513.56	5,774.88	1,373.10	1,431.18	5,135.34	1,298.37
April	1,280.55	6,104.38	696.40	1,270.30	1,976.95	7,374.68	1,793.49	1,889.79	6,893.27	1,714.42
May	870.66	4,019.56	630.70	1,124.80	1,501.36	5,144.36	1,362.03	1,251.30	5,332.91	1,135.18
June	1,088.01	4,662.24	650.60	1,160.60	1,738.61	5,822.84	1,577.27	1,315.35	5,898.45	1,193.29
July	1,128.71	4,789.94	503.40	896.70	1,632.11	5,686.64	1,480.65	1,475.21	5,780.85	1,338.31
August	1,150.36	4,937.18	469.80	832.00	1,620.16	5,769.18	1,469.81	1,525.50	4,901.82	1,383.93
September	1,131.50	5,980.99	298.00	513.30	1,429.50	6,494.29	1,296.84	1,717.93	5,692.49	1,558.51
October	1,181.19	5,912.58	219.20	403.90	1,400.39	6,316.48	1,270.43	1,702.10	6,404.37	1,544.15
November	1,047.20	5,259.75	323.90	595.30	1,371.10	5,855.05	1,243.86	1,422.50	5,102.19	1,290.49
December	1,343.27	6,121.67	172.30	328.80	1,515.57	6,450.47	1,374.93	1,761.13	5,866.77	1,597.70
Totals	13,415.74	62,727.30	4,916.60	8,933.30	18,332.34	71,660.60	16,631.10	18,651.68	68,892.06	16,920.80

Please Note: The difference between plant quantities produced above and land application quantities in Appendix B is due to quantities of biosolids in storage pending land application.

APPENDIX B
2013 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 sewage 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 2013

Name: Bill Bailey, Operations Director Synagro

Phone Number: 865-522-3410

Signature: Signature on file Date: 2-10-2014

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

BIOSOLIDS LAND APPLICATION
ANNUAL REPORT

TOTAL WET TONS
67,534

TOTAL DRY TONS
27,070

TOTAL DRY METRIC TONS
24,557

Period of Report
January 1 thru December 31, 2013

MATERIAL MATTERS, Inc.

Fact Sheet
Calendar Year 2013
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 2013. (40 CFR Part 503.18)

Quantities Produced and Land Applied

Annual Quantities

- 67,534 Wet Tons/year
- 27,070 Dry Tons/year
- 24,557 Dry Metric Tons/year

Monthly Quantities

Month	Wet Tons	Dry Tons	Dry Metric Tons
January	2,632	1,073	973
February	2,555	1,025	930
March	4,017	1,710	1,552
April	8,295	3,451	3,130
May	8,655	3,423	3,105
June	5,196	2,211	2,005
July	4,353	1,852	1,680
August	5,801	2,406	2,183
September	6,035	2,473	2,244
October	9,525	3,602	3,268
November	6,322	2,355	2,137
December	4,148	1,489	1,350

Quantities Land Applied by State

State	Wet Tons	Dry Tons	Dry Metric Tons
TN	67,534	27,070	24,557

Quantities Land Applied by County

	State	County	Wet Tons	Dry Tons	Dry Metric Tons
●	TN	Bledsoe	26,983	11,305	10,256
●	TN	Grundy	7,745	3,150	2,858
●	TN	Hamilton	1,133	440	399
●	TN	Marion	6,282	2,609	2,367
●	TN	Meigs	1,271	534	484
●	TN	Rhea	20,096	7,500	6,804
●	TN	Sequatchie	4,024	1,531	1,389

Land Application Area

Total Acres Land Applied - By State

	State	Acres	Hectares
●	TN	5,024	2,033

Number of Farms and Total Acres Land Applied - By County

	State	County	Acres	Hectares	Farms
●	TN	Bledsoe	2,066	836	71
●	TN	Grundy	499	202	15
●	TN	Hamilton	75	30	3
●	TN	Marion	645	261	19
●	TN	Meigs	114	46	6
●	TN	Rhea	1,296	525	75
●	TN	Sequatchie	329	133	6

Total Historic Land Application Acreage - By State

	State	Acres	Hectares
●	AL	7,641	3,092
●	TN	26,421	10,692

Total Historic Land Application Acreage - 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	9,189	3,719
TN	Grundy	1,600	647
TN	Hamilton	3,071	1,243
TN	Marion	5,415	2,191
TN	Meigs	1,024	414
TN	Rhea	2,263	916
TN	Sequatchie	3,860	1,562

Nutrient or Fertilizer Content

Data are averaged over 103 sampling events in 2013.

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

- Total Nitrogen (N) 3.7%
  - Organic Nitrogen (N) 3.5%
  - Ammonia Nitrogen (N) 0.2%
- Phosphorous (P) 8.2%
- Potassium (K) 0.2%
- Calcium (Ca) 11.7%
- Calcium (CaO equiv.) 3.7%

Other Nutrient Content (% Dry-Wt Basis)

- Iron (Fe) 2.0%
- Boron (B) 0.0%
- Sulfur (S) 0.6%

Total Solids & pH

- Total Solids 47.12%
- pH (std. units) 11.98

Potential Value of Nutrients in Biosolids

Value of Commercial Nutrients

- Nitrogen (N) $1,280 /Ton, 100-0-0
- Phosphorous as phosphate (P2O5) $868 /Ton, 0-100-0
- Potassium as potassium oxide (K2O) $1,019 /Ton, 0-0-100
- Ag Lime as calcium carbonate (CaCO3) $37 /Ton, CCE=100

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 regional ag-coop prices, adjusted to include hauling and spreading costs for a typical corn grain crop.

Value of Nutrients in Biosolids

- Ammonia Nitrogen (NH4 as N) $2.47 /Dry Ton
- Organic Nitrogen (as N) $20.43 /Dry Ton
- Phosphorous as phosphate (P2O5) $162.47 /Dry Ton
- Potassium as potassium oxide (K2O) $3.57 /Dry Ton
- Ag Lime as calcium carbonate (CaCO3) $2.45 /Dry Ton
- Total: $191.39 /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) $620,000
- Phosphorous as phosphate (P2O5) $4,398,000
- Potassium as potassium oxide (K2O) $97,000
- Ag Lime as calcium carbonate (CaCO3) $66,000

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	3.62	8.8%
Cadmium	39	4.65	11.9%
Chromium	N/A	23.18	N/A
Copper	1,500	125.78	8.4%
Lead	300	18.45	6.1%
Mercury	17	0.21	1.2%
Molybdenum	N/A	13.76	N/A
Nickel	420	46.19	11.0%
Selenium	100	5.95	6.0%
Zinc	2,800	531.63	19.0%

Data are averaged over 103 sampling events in 2013.

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*	15	<2.7	<3 MPN / 4 grams
• Viable Helminth Ova	15	<1	<1 Ova / 4 grams
• Fecal Coliform	69	<1000	<1,000 CFU / gram
• Enteric Virus	15	<1	<1 PFU / 4 grams

Class B Biosolids	*Annual Sampling Events*	*Avg Measured Conc.*	*Allowable Conc. (dry-wt basis)*
• Fecal Coliform	69	<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. If solids inventory require, dewatering processes can be ramped up to a capacity of 160 dry tons per day. The plant currently operates the following solids treatment unit processes:
  1. Gravity thickening of primary and waste-activated solids;
  2. Thermophilic/mesophilic anaerobic digestion of primary solids;
  3. Waste-activated solids are blended with digested primary solids;
  4. Chemical conditioning of blended solids with polymer followed by dewatering via two (2) 60 dry ton per day high “G” centrifuges or two (2) 50 dry ton per day low “G” centrifuges;
  5. Dewatered solids from the centrifuges are lime stabilized with lime kiln dust to produce Class B biosolids;
  6. A second dewatering process available consists of chemical conditioning of blended solids with lime slurry and ferric chloride followed by hot water vacuum filter presses capable of processing approximately 43 dry tons per day;
  7. The biosolids produced from these processes are combined and land applied on agricultural sites.

Other Considerations

Environmental and Conserved Natural Resources Value

- 484 tons of Nitrogen were recycled, rather than going to landfill.
- 19,700 mmBTU (million BTU) of natural gas was conserved, since farmers didn't need to purchase manufactured chemical fertilzer.
- That's 19,700,000 cubic feet of natural gas.
- If used to generate power, that natural gas could make 5,780,000 kW-hrs of electricity.
- That could run 352 typical 1875W hair dryers for a year.
- 1,190 tons of CO2 didn't end up in the atmosphere.

APPENDIX B (1)
2013 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 2013 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
BL004	Scissom, Tom	01	2014	48	9/6/2013	9/7/2013	165.0	132.8	711.5
BL004	Scissom, Tom	02	2014	25.1	9/9/2013	9/9/2013	165.0	144.9	406.1
BL004	Scissom, Tom	03	2014	20.4	9/9/2013	9/10/2013	165.0	143.4	326.5
BL004	Scissom, Tom	04	2014	15.9	9/10/2013	9/10/2013	120.0	34.4	61.0
BL021	HAMILTOM, BETTY	01	2013	35.4	2/5/2013	2/7/2013	154.0	116.3	543.4
BL021	HAMILTOM, BETTY	02	2013	22.5	2/7/2013	2/8/2013	120.0	89.0	218.7
BL022	BURNS FARM CORPORATION	01	2013	27.3	8/15/2013	8/15/2013	82.3	70.0	211.9
BL022	BURNS FARM CORPORATION	02	2013	22.9	8/8/2013	8/8/2013	123.0	102.1	263.0
BL022	BURNS FARM CORPORATION	05	2013	6.9	8/8/2013	8/8/2013	127.3	106.8	82.9
BL022	BURNS FARM CORPORATION	06	2013	20.9	8/9/2013	8/9/2013	110.2	101.0	237.3
BL022	BURNS FARM CORPORATION	07	2013	28.4	8/28/2013	8/28/2013	111.8	92.3	292.8
BL022	BURNS FARM CORPORATION	08	2013	16.6	8/9/2013	8/9/2013	122.2	104.6	194.6
BL023	BURNS FARM CORPORATION	02	2013	33.9	8/14/2013	8/14/2013	112.5	100.5	377.8
BL025	BURNS FARM CORPORATION	01	2013	48.9	8/29/2013	8/29/2013	84.9	70.2	383.3
BL025	BURNS FARM CORPORATION	02	2013	50.6	8/30/2013	8/30/2013	95.2	80.6	455.3
BL028	ELLIS, JEANNE	01	2013	21.3	3/14/2013	3/14/2013	141.9	107.3	245.2
BL028	ELLIS, JEANNE	02	2013	28.9	6/3/2013	6/3/2013	145.6	134.1	416.4
BL028	ELLIS, JEANNE	03	2013	40.3	3/9/2013	3/13/2013	141.0	125.5	542.7
BL028	ELLIS, JEANNE	04	2013	4.7	3/14/2013	3/14/2013	144.0	129.3	65.2
BL028	ELLIS, JEANNE	05	2013	24.2	6/4/2013	6/4/2013	158.6	139.0	361.2
BL028	ELLIS, JEANNE	06	2013	29.8	3/11/2013	3/11/2013	79.9	71.7	229.1
BL028	ELLIS, JEANNE	07	2013	14.1	3/9/2013	3/9/2013	110.0	96.1	145.4
BL028	ELLIS, JEANNE	08	2013	14.2	6/5/2013	6/5/2013	103.8	88.1	138.8
BL031	Taylor Holmes	01	2013	13.2	8/1/2013	8/1/2013	120.0	106.0	155.2
BL031	Taylor Holmes	02	2013	50.2	8/1/2013	8/2/2013	105.9	83.1	462.3
BL031	Taylor Holmes	03	2013	22.8	8/5/2013	8/5/2013	150.5	93.9	240.8
BL031	Taylor Holmes	04	2013	56.2	2/4/2013	8/3/2013	120.0	52.7	350.4
BL031	Taylor Holmes	05	2013	34.4	2/4/2013	2/6/2013	165.0	121.4	550.9
BL031	Taylor Holmes	06	2013	20.3	2/8/2013	2/8/2013	165.0	137.6	304.8
BL031	Taylor Holmes	07	2013	50.6	8/2/2013	8/3/2013	106.3	75.4	423.2

BL031	Taylor Holmes	08	2013	56.7	1/28/2013	1/29/2013	144.3	122.1	913.4
BL031	Taylor Holmes	09	2013	33.8	6/6/2013	6/7/2013	144.0	128.6	474.5
BL031	Taylor Holmes	10	2013	32.3	6/8/2013	6/8/2013	144.3	123.2	434.4
BL034	John Medley	01	2013	13.8	6/24/2013	6/24/2013	110.6	102.2	156.4
BL034	John Medley	02	2013	30.4	5/1/2013	5/1/2013	146.0	119.9	401.2
BL034	John Medley	03	2013	57.9	6/25/2013	6/27/2013	81.5	69.9	448.8
BL034	John Medley	05	2013	18.3	6/24/2013	6/24/2013	127.9	108.7	220.6
BL037	BURNS FARM CORPORATION	01	2013	24.5	7/30/2013	7/30/2013	119.5	102.2	277.7
BL037	BURNS FARM CORPORATION	02	2013	31	7/31/2013	7/31/2013	84.0	77.2	265.4
BL037	BURNS FARM CORPORATION	03	2013	12.9	7/30/2013	7/30/2013	84.3	76.4	109.3
BL038	Sheldon Property	01	2013	60.5	1/22/2013	1/24/2013	180.0	149.7	971.3
BL038	Sheldon Property	02	2013	45.5	1/7/2013	1/8/2013	180.0	153.1	747.4
BL038	Sheldon Property	03	2013	47.7	4/23/2013	4/23/2013	150.0	88.8	466.3
BL038	Sheldon Property	04	2013	16.5	3/27/2013	3/27/2013	150.0	131.8	236.9
BL038	Sheldon Property	05	2013	52	3/27/2013	3/28/2013	150.0	128.4	728.7
BL038	Sheldon Property	06	2013	14.2	3/29/2013	3/29/2013	210.0	175.9	272.6
BL038	Sheldon Property	07	2013	36.2	3/29/2013	3/29/2013	210.0	181.6	717.6
BL038	Sheldon Property	08	2013	80.3	3/16/2013	4/23/2013	150.0	117.6	1033.3
BL039	SWAFFORD, JOHN & LEON	01	2013	37.5	2/16/2013	2/19/2013	165.0	136.8	551.0
BL039	SWAFFORD, JOHN & LEON	06	2013	23.4	2/16/2013	2/16/2013	120.0	101.5	255.0
BL040	BROWN, RICHARD	01	2013	1.4	4/3/2013	4/3/2013	120.0	109.6	16.7
BL040	BROWN, RICHARD	02	2013	1.8	4/3/2013	4/3/2013	120.0	94.4	18.5
BL040	BROWN, RICHARD	03	2013	8.8	4/3/2013	4/3/2013	120.0	82.1	78.7
BL040	BROWN, RICHARD	05	2013	9	4/3/2013	4/3/2013	120.0	103.7	101.6
BL040	BROWN, RICHARD	06	2013	22	4/10/2013	4/11/2013	210.0	178.3	427.0
BL040	BROWN, RICHARD	07	2013	29.3	4/11/2013	4/11/2013	210.0	168.6	537.9
BL041	KNOX, JACKIE	1	2013	29.3	8/20/2013	8/20/2013	120.0	100.6	385.9
BL041	KNOX, JACKIE	2	2013	38	8/20/2013	8/20/2013	165.0	137.3	582.7
BL041	KNOX, JACKIE	3	2013	19.4	8/26/2013	8/27/2013	165.0	134.0	341.1
BL041	KNOX, JACKIE	5	2013	26.1	8/22/2013	8/23/2013	165.0	143.9	492.0
BL043	RAINS, CHAD	1	2013	7.8	4/26/2013	4/26/2013	165.0	146.3	125.6
BL044	HAMILTON JR, GEORGE	1	2013	23	4/26/2013	4/26/2013	165.0	141.0	357.0
BL044	HAMILTON JR, GEORGE	2	2013	24.2	4/26/2013	4/26/2013	210.0	178.8	476.4
BL044	HAMILTON JR, GEORGE	3	2013	30	4/26/2013	4/30/2013	210.0	162.6	536.9

BL047	PENDERGRASS, LEROY	1	2013	71.3	6/13/2013	6/14/2013	210.0	99.9	787.5
BL047	PENDERGRASS, LEROY	2	2013	40.1	6/14/2013	6/15/2013	210.0	138.4	615.1
BL049	PENDERGRASS, LEROY	01	2013	22.3	3/15/2013	3/15/2013	210.0	170.7	414.4
BL050	HART, JOHN	1	2013	8.4	4/15/2013	4/15/2013	165.0	141.9	129.7
BL050	HART, JOHN	2	2013	18.3	4/15/2013	4/15/2013	165.0	141.7	282.2
BL050	HART, JOHN	4	2013	22.7	4/15/2013	4/15/2013	210.0	178.2	440.4
BL050	HART, JOHN	5	2013	38.8	4/16/2013	4/16/2013	210.0	177.2	756.7
GY001	DURANT, BRUNO	03	2013	59.9	4/22/2013	5/24/2013	180.0	151.4	1182.0
GY001	DURANT, BRUNO	04	2013	58.4	4/10/2013	4/16/2013	180.0	155.2	986.7
GY001	DURANT, BRUNO	05	2013	49.4	4/18/2013	5/24/2013	180.0	129.0	830.6
GY008	AHEARN, STEVE	01	2013	12	6/25/2013	6/25/2013	119.1	104.4	138.4
GY008	AHEARN, STEVE	02	2013	7.5	6/26/2013	6/26/2013	90.9	79.6	66.0
GY008	AHEARN, STEVE	03	2013	7.6	6/26/2013	6/26/2013	87.1	71.7	60.2
GY008	AHEARN, STEVE	04	2013	14.6	6/25/2013	6/25/2013	86.9	77.6	125.2
GY008	AHEARN, STEVE	05	2013	8.5	6/26/2013	6/26/2013	118.6	105.2	98.9
GY008	AHEARN, STEVE	06	2013	21.9	6/26/2013	6/28/2013	119.9	109.5	265.2
GY008	AHEARN, STEVE	07	2013	10.1	6/26/2013	6/26/2013	89.6	70.3	78.5
GY008	AHEARN, STEVE	08	2013	6.2	6/28/2013	6/28/2013	120.0	98.3	67.5
GY008	AHEARN, STEVE	09	2013	2.9	6/28/2013	6/28/2013	84.0	75.7	24.4
GY008	AHEARN, STEVE	10	2013	21.7	6/26/2013	6/26/2013	88.5	81.2	194.8
GY013	DURANT, BRUNO	01	2013	47.8	5/25/2013	5/27/2013	180.0	123.4	768.9
GY013	DURANT, BRUNO	03	2013	170.1	5/27/2013	5/31/2013	180.0	153.3	2857.6
HA018	SHELLY, JOHNNY	02	2014	38.9	9/11/2013	9/13/2013	144.0	134.5	678.4
HA018	SHELLY, JOHNNY	04	2014	5	9/10/2013	9/11/2013	110.6	92.3	59.4
HA043	LYONS, JOHN	01	2013	30.8	5/16/2013	5/16/2013	246.7	116.0	394.9
MR011	FULTS, JOHNNY	01	2013	97.5	7/16/2013	7/17/2013	131.6	112.2	1213.0
MR011	FULTS, JOHNNY	02	2013	47	7/16/2013	7/16/2013	133.0	110.6	574.7
MR011	FULTS, JOHNNY	03	2014	22.9	10/18/2013	10/18/2013	104.6	76.2	194.9
MR011	FULTS, JOHNNY	04	2014	29.5	10/21/2013	10/21/2013	105.0	73.2	241.0
MR011	FULTS, JOHNNY	05	2014	18	10/21/2013	10/21/2013	105.6	66.3	133.1
MR011	FULTS, JOHNNY	06	2013	20.9	7/18/2013	7/18/2013	115.0	101.3	234.8
MR011	FULTS, JOHNNY	07	2014	90.2	10/23/2013	10/25/2013	103.7	70.8	707.6
MR011	FULTS, JOHNNY	09	2014	16	10/25/2013	10/25/2013	103.5	76.3	135.1
MR011	FULTS, JOHNNY	10	2014	24	10/22/2013	10/22/2013	103.5	74.1	198.4

MR011	FULTS, JOHNNY	11	2013	29.5	7/15/2013	7/15/2013	126.8	108.5	353.8
MR011	FULTS, JOHNNY	12	2013	54.1	7/12/2013	7/12/2013	126.8	104.0	621.9
MR011	FULTS, JOHNNY	13	2013	14.6	7/15/2013	7/15/2013	114.8	94.7	152.8
MR011	FULTS, JOHNNY	14	2013	19.4	7/12/2013	7/12/2013	83.8	78.0	167.2
MR011	FULTS, JOHNNY	15	2013	27.4	7/13/2013	7/13/2013	83.6	70.3	213.0
MR021	SMITH, JOYCE	01	2014	12.4	10/28/2013	10/28/2013	165.0	146.5	233.9
MR021	SMITH, JOYCE	02	2014	9.5	10/28/2013	10/28/2013	165.0	143.0	173.3
MR021	SMITH, JOYCE	03	2014	13.3	10/28/2013	10/28/2013	165.0	150.5	254.6
MR028	BLEVINS, DEWEY	01	2013	21.3	7/13/2013	7/13/2013	86.5	71.7	169.3
MR029	GWYNN, PHILIP	01	2013	77.5	4/15/2013	6/4/2013	210.0	16.0	161.9
MR029	GWYNN, PHILIP	01	2014	77.5	10/14/2013	11/5/2013	85.0	14.9	147.6
MS001	MAYSE,BILLY&BATTEN,BRUCE	01	2014	30.2	9/12/2013	9/12/2013	160.6	114.7	387.6
MS001	MAYSE,BILLY&BATTEN,BRUCE	02	2014	18.9	9/16/2013	9/16/2013	149.9	85.9	182.6
MS001	MAYSE,BILLY&BATTEN,BRUCE	03	2014	13	9/12/2013	9/12/2013	148.7	96.6	141.3
MS001	MAYSE,BILLY&BATTEN,BRUCE	04	2014	37.5	9/12/2013	9/13/2013	150.2	97.5	410.7
MS001	MAYSE,BILLY&BATTEN,BRUCE	05	2014	11.7	9/13/2013	9/13/2013	149.7	85.4	112.4
MS001	MAYSE,BILLY&BATTEN,BRUCE	06	2014	3	9/12/2013	9/12/2013	149.5	109.9	36.9
RH004	ARCHER, EUGENE	01	2014	28.4	12/13/2013	12/16/2013	183.1	161.7	579.8
RH004	ARCHER, EUGENE	02	2014	40.3	12/16/2013	12/18/2013	147.0	127.7	649.2
RH004	ARCHER, EUGENE	03	2014	62.8	12/18/2013	12/20/2013	159.6	121.0	952.8
RH005	DENTON, GUY	01	2014	15.5	9/25/2013	9/25/2013	87.0	72.1	145.4
RH005	DENTON, GUY	02	2014	11.3	9/26/2013	9/26/2013	117.7	89.1	130.4
RH005	DENTON, GUY	03	2014	11.6	9/25/2013	9/25/2013	119.8	107.0	160.8
RH005	DENTON, GUY	04	2014	15.8	9/26/2013	9/26/2013	124.5	110.3	225.7
RH005	DENTON, GUY	07	2014	7.5	9/27/2013	9/27/2013	120.0	72.5	70.4
RH006	DENTON, GUY	01	2014	7.1	9/23/2013	9/23/2013	154.2	138.9	110.9
RH006	DENTON, GUY	02	2014	12.9	9/23/2013	9/23/2013	165.7	141.4	205.1
RH006	DENTON, GUY	03	2014	15.7	9/23/2013	9/24/2013	150.8	121.2	214.1
RH006	DENTON, GUY	04	2014	16.2	9/24/2013	9/24/2013	157.9	136.8	249.3
RH006	DENTON, GUY	05	2014	15.8	9/24/2013	9/24/2013	119.6	103.3	183.6
RH007	Massengale, Don	01	2014	7.6	10/8/2013	10/8/2013	114.3	91.5	90.0
RH007	Massengale, Don	02	2014	5.9	10/8/2013	10/8/2013	86.9	80.3	61.4
RH007	Massengale, Don	03	2014	13.1	10/8/2013	10/8/2013	84.3	80.9	137.3
RH007	Massengale, Don	04	2014	12.8	10/8/2013	10/9/2013	112.1	105.5	174.1

RH007	Massengale, Don	05	2014	13.7	10/7/2013	10/9/2013	165.3	109.4	193.4
RH007	Massengale, Don	06	2014	16.1	10/7/2013	10/7/2013	175.1	117.5	245.2
RH007	Massengale, Don	08	2014	7.2	9/17/2013	9/17/2013	136.3	122.0	98.8
RH007	Massengale, Don	09	2014	10.4	9/17/2013	9/18/2013	103.3	95.4	111.5
RH007	Massengale, Don	10	2014	4	9/18/2013	9/18/2013	117.3	93.3	42.0
RH007	Massengale, Don	11	2014	15.6	9/18/2013	9/18/2013	106.3	88.0	154.5
RH007	Massengale, Don	13	2014	17.6	10/4/2013	10/4/2013	120.0	110.1	228.5
RH007	Massengale, Don	14	2014	20.3	10/4/2013	10/4/2013	120.0	112.4	255.1
RH008	FREELS, EDSEL	01	2014	14.2	10/28/2013	10/28/2013	120.0	93.2	170.5
RH008	FREELS, EDSEL	03	2014	3.9	10/28/2013	10/28/2013	165.0	96.4	48.4
RH008	FREELS, EDSEL	04	2014	15.5	10/28/2013	10/29/2013	180.0	155.4	310.3
RH008	FREELS, EDSEL	05	2014	9.7	10/29/2013	10/29/2013	165.0	73.3	91.5
RH009	HENDERSON, DORRIS	01	2014	6.7	9/20/2013	9/20/2013	150.4	138.5	104.3
RH009	HENDERSON, DORRIS	03	2014	17.8	9/20/2013	9/20/2013	165.0	157.0	314.2
RH010	FREELS, DARREN	1	2014	12.7	10/24/2013	10/24/2013	180.0	152.6	253.0
RH010	FREELS, DARREN	2	2014	8.1	10/24/2013	10/25/2013	180.0	152.4	160.6
RH010	FREELS, DARREN	3	2014	3.6	10/25/2013	10/25/2013	165.0	137.1	63.9
RH010	FREELS, DARREN	4	2014	9.4	10/25/2013	10/25/2013	165.0	71.9	88.2
RH010	FREELS, DARREN	5	2014	10	10/25/2013	10/25/2013	165.0	141.5	182.9
RH011	HOUSLEY, DONALD	01	2014	18.6	11/5/2013	11/5/2013	142.3	130.4	271.2
RH011	HOUSLEY, DONALD	02	2014	14.8	11/4/2013	11/4/2013	121.7	115.3	190.8
RH011	HOUSLEY, DONALD	03	2014	18.4	11/5/2013	11/5/2013	123.5	104.9	215.7
RH011	HOUSLEY, DONALD	04	2014	20.8	11/4/2013	11/4/2013	123.2	106.2	246.9
RH013	BOWERS, DEWAYNE	01	2014	34.8	10/21/2013	10/30/2013	154.0	132.6	602.4
RH013	BOWERS, DEWAYNE	02	2014	20.3	10/30/2013	10/30/2013	151.5	103.5	270.6
RH013	BOWERS, DEWAYNE	03	2014	28.7	10/30/2013	10/31/2013	152.5	143.2	526.4
RH014	BrOOKS, HOWARD	01	2014	3.4	11/5/2013	11/5/2013	127.7	103.7	45.7
RH014	BrOOKS, HOWARD	02	2014	23.9	11/5/2013	11/5/2013	119.6	96.2	297.8
RH014	BrOOKS, HOWARD	03	2014	1.5	11/5/2013	11/5/2013	356.3	204.6	39.8
RH014	BrOOKS, HOWARD	04	2014	27.2	10/14/2013	10/14/2013	241.3	209.5	724.6
RH014	BrOOKS, HOWARD	05	2014	2.8	10/15/2013	10/15/2013	356.6	124.7	44.4
RH014	BrOOKS, HOWARD	06	2014	12.4	11/4/2013	11/5/2013	157.2	134.0	215.2
RH014	BrOOKS, HOWARD	07	2014	8.6	10/8/2013	10/8/2013	253.7	210.5	233.4
RH014	BrOOKS, HOWARD	08	2014	34.8	10/8/2013	10/9/2013	241.5	210.1	938.0

RH014	BrOOKS, HOWARD	09	2014	23.1	11/4/2013	11/4/2013	151.9	128.7	385.2
RH014	BrOOKS, HOWARD	10	2014	33.6	10/10/2013	10/14/2013	175.8	152.9	653.3
RH014	BrOOKS, HOWARD	11	2014	21	10/15/2013	10/15/2013	179.0	156.8	418.8
RH015	PRITCHETT, JIM	2	2014	29.6	11/19/2013	11/19/2013	120.0	105.7	397.8
RH015	PRITCHETT, JIM	3	2014	18.3	11/20/2013	11/20/2013	120.0	115.5	268.9
RH015	PRITCHETT, JIM	4	2014	29.2	11/20/2013	11/21/2013	165.0	130.7	483.4
RH016	PRITCHETT, JD	1	2014	19.2	11/15/2013	11/15/2013	120.0	92.2	226.6
RH016	PRITCHETT, JD	2	2014	25.6	11/15/2013	11/15/2013	120.0	55.1	180.5
RH017	SMITH, DOC	1	2014	22.8	11/7/2013	11/7/2013	120.0	104.1	305.8
RH017	SMITH, DOC	10	2014	9.6	11/13/2013	11/14/2013	120.0	105.6	130.6
RH017	SMITH, DOC	11	2014	12.4	11/14/2013	11/14/2013	120.0	87.1	139.2
RH017	SMITH, DOC	2	2014	11.5	11/8/2013	11/8/2013	120.0	110.2	163.2
RH017	SMITH, DOC	3	2014	8.4	11/11/2013	11/11/2013	120.0	107.3	116.1
RH017	SMITH, DOC	4	2014	15.2	11/6/2013	11/6/2013	165.0	150.7	291.5
RH017	SMITH, DOC	5	2014	39.1	11/6/2013	11/6/2013	120.0	106.0	533.4
RH017	SMITH, DOC	6	2014	5.9	11/7/2013	11/7/2013	120.0	108.9	82.8
RH017	SMITH, DOC	7	2014	17.8	11/12/2013	11/12/2013	165.0	142.6	326.9
RH017	SMITH, DOC	8	2014	14.3	11/13/2013	11/13/2013	120.0	102.5	188.8
RH017	SMITH, DOC	9	2014	11.5	11/14/2013	11/14/2013	120.0	72.0	106.6
RH020	HARRISON, ALVIN	2	2014	33.1	11/25/2013	11/25/2013	165.0	98.2	410.3
RH023	ROBERTS, CHARLES	1	2014	14.8	12/3/2013	12/3/2013	165.0	142.1	265.5
RH023	ROBERTS, CHARLES	3	2014	26.6	12/2/2013	12/2/2013	165.0	140.6	472.2
RH023	ROBERTS, CHARLES	4	2014	43	12/3/2013	12/5/2013	180.0	153.1	831.0
RH023	ROBERTS, CHARLES	6	2014	22.7	12/6/2013	12/6/2013	165.0	138.7	397.6
SE012	Studer, James	01	2013	33.1	4/8/2013	4/8/2013	69.5	59.1	210.2
SE012	Studer, James	02	2013	45.1	4/8/2013	4/9/2013	69.9	59.4	287.9
SE012	Studer, James	03	2013	119.2	5/14/2013	5/21/2013	126.5	106.5	1675.1
SE012	Studer, James	04	2013	112.5	5/8/2013	5/13/2013	126.6	107.8	1601.0
SE012	Studer, James	05	2013	12.8	5/22/2013	5/22/2013	131.0	97.0	161.8
SE012	Studer, James	06	2013	6.5	5/22/2013	5/22/2013	133.1	103.9	88.1

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	126	**Calendar Year:**	2013
Applied Acres:	109.4	**Farm Code:**	BL004
WT Applied:	1,505.0	**Farm Name:**	Scissom, Tom
DT Applied:	639.2	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.46717 W 85.32632

Crop Year: 2014

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	Tall Fescue Hay		09/06/13	09/07/13	132.8	2,217.4	33.4	S	7.8	6.3	14.82	302.2	711.5
02	25.1	Tall Fescue Hay		09/09/13	09/09/13	144.9	2,420.1	36.5	S	7.8	6.9	16.18	172.5	406.1
03	20.4	Tall Fescue Hay		09/09/13	09/10/13	143.4	2,394.4	36.1	S	7.8	6.8	16.01	138.7	326.5
04	15.9	Tall Fescue Pasture		09/10/13	09/10/13	34.4	573.9	8.7	S	5.7	1.6	3.84	25.9	61.0

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	202.7	**Calendar Year:**	2013
Applied Acres:	57.9	**Farm Code:**	BL021
WT Applied:	762.1	**Farm Name:**	HAMILTOM, BETTY
DT Applied:	296.4	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.5951 W 85.1601

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	35.4	Corn Grain 176 - 200 bu		02/05/13	02/07/13	116.3	1,722.2	40.3	S	7.6	5.7	15.35	203.2	543.4
02	22.5	Tall Fescue Pasture		02/07/13	02/08/13	89.0	1,408.3	24.1	S	5.6	4.1	9.72	93.2	218.7

Agronomic Loading Rate Summary Worksheet

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

Calendar Year:	2013
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:	123
WT Applied:	1,282.5
DT Applied:	544.0

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	27.3	Tall Fescue Pasture		08/15/13	08/15/13	70.0	1,161.9	18.1	S	3.9	3.3	7.76	90.2	211.9
02	22.9	Tall Fescue Hay		08/08/13	08/08/13	102.1	1,734.1	25.0	S	5.9	4.9	11.48	111.4	263.0
05	6.9	Tall Fescue Hay		08/08/13	08/08/13	106.8	1,813.6	26.1	S	6.1	5.1	12.01	35.1	82.9
06	20.9	Tall Fescue Hay		08/09/13	08/09/13	101.0	1,714.8	24.7	S	5.2	4.8	11.36	100.5	237.3
07	28.4	Tall Fescue Hay		08/28/13	08/28/13	92.3	1,542.3	23.3	S	5.3	4.4	10.31	124.4	292.8
08	16.6	Tall Fescue Hay		08/09/13	08/09/13	104.6	1,762.7	25.9	S	5.8	5.0	11.72	82.5	194.6

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	56.8	**Calendar Year:**	2013
Applied Acres:	33.9	**Farm Code:**	BL023
WT Applied:	377.8	**Farm Name:**	BURNS FARM CORPORATION
DT Applied:	160.8	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.5701 W 85.2334

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	33.9	Tall Fescue Hay		08/14/13	08/14/13	100.5	1,667.6	25.9	S	5.3	4.7	11.14	160.8	377.8

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	99.5	**Calendar Year:**	2013
Applied Acres:	99.5	**Farm Code:**	BL025
WT Applied:	838.5	**Farm Name:**	BURNS FARM CORPORATION
DT Applied:	356.1	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.59194 W 85.25508

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	48.9	Tall Fescue Pasture		08/29/13	08/29/13	70.2	1,172.6	17.7	S	4.0	3.3	7.84	162.8	383.3
02	50.6	Tall Fescue Pasture		08/30/13	08/30/13	80.6	1,346.0	20.3	S	4.5	3.8	9.00	193.4	455.3

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	177.5	**Calendar Year:**	2013
Applied Acres:	177.5	**Farm Code:**	BL028
WT Applied:	2,144.0	**Farm Name:**	ELLIS, JEANNE
DT Applied:	912.9	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.66064 W 85.13697

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	21.3	Corn Grain 176 - 200 bu		03/14/13	03/14/13	107.3	1,621.3	29.6	S	6.5	4.9	11.51	104.4	245.2
02	28.9	Corn Grain 176 - 200 bu		06/03/13	06/03/13	134.1	2,050.7	36.5	S	6.7	6.1	14.41	177.5	416.4
03	40.3	Corn Grain 176 - 200 bu		03/09/13	03/13/13	125.5	1,881.7	35.0	S	6.4	5.7	13.47	230.9	542.7
04	4.7	Corn Grain 176 - 200 bu		03/14/13	03/14/13	129.3	1,950.5	35.7	S	6.6	5.9	13.87	27.8	65.2
05	24.2	Corn Grain 176 - 200 bu		06/04/13	06/04/13	139.0	2,124.6	37.8	S	7.3	6.4	14.93	154.0	361.2
06	29.8	Tall Fescue Pasture		03/11/13	03/11/13	71.7	1,074.4	20.0	S	3.6	3.3	7.69	97.5	229.1
07	14.1	Tall Fescue Hay		03/09/13	03/09/13	96.1	1,440.7	26.8	S	5.0	4.4	10.31	61.9	145.4
08	14.2	Tall Fescue Pasture		06/05/13	06/05/13	88.1	1,462.7	22.8	S	4.9	4.2	9.77	59.1	138.8

Agronomic Loading Rate Summary Worksheet

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

Calendar Year:	2013
Farm Code:	BL031
Farm Name:	Taylor Holmes
State:	TN
County:	Bledsoe
Lat/Long:	N 35.62415 W 85.1515

Approved Acres:	370.5
Applied Acres:	370.5
WT Applied:	4,310.0
DT Applied:	1,751.8

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	13.2	Tall Fescue Pasture		08/01/13	08/01/13	106.0	1,759.4	27.4	S	5.7	5.0	11.76	66.0	155.2
02	50.2	Tall Fescue Pasture		08/01/13	08/02/13	83.1	1,378.3	21.4	S	5.0	3.9	9.21	196.7	462.3
03	22.8	Tall Fescue Hay		08/05/13	08/05/13	93.9	1,594.9	22.9	S	7.2	4.5	10.56	102.0	240.8
04	56.2	Tall Fescue Pasture		02/04/13	08/03/13	52.7	845.3	15.0	S	5.8	2.5	6.24	142.2	350.4
05	34.4	Tall Fescue Hay		02/04/13	02/06/13	121.4	1,796.7	42.1	S	8.1	6.0	16.02	206.0	550.9
06	20.3	Tall Fescue Hay		02/08/13	02/08/13	137.6	2,175.7	37.2	S	7.7	6.4	15.01	129.9	304.8
07	50.6	Tall Fescue Pasture		08/02/13	08/03/13	75.4	1,251.6	19.5	S	5.0	3.6	8.36	180.1	423.2
08	56.7	Tall Fescue Hay		01/28/13	01/29/13	122.1	1,807.4	42.3	S	7.1	6.0	16.11	341.6	913.4
09	33.8	Tall Fescue Hay		06/06/13	06/07/13	128.6	2,034.1	34.8	S	6.7	6.0	14.04	202.2	474.5
10	32.3	Tall Fescue Hay		06/08/13	06/08/13	123.2	1,948.9	33.3	S	6.7	5.7	13.45	185.1	434.4

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	136.6	**Calendar Year:**	2013
Applied Acres:	120.4	**Farm Code:**	BL034
WT Applied:	1,227.0	**Farm Name:**	John Medley
DT Applied:	521.6	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.53315 W 85.2263

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		06/24/13	06/24/13	102.2	1,696.4	26.4	S	5.2	4.8	11.34	66.6	156.4
02	30.4	Corn Grain 176 - 200 bu		05/01/13	05/01/13	119.9	1,946.3	31.2	S	6.8	5.6	13.20	170.2	401.2
03	57.9	Tall Fescue Pasture		06/25/13	06/27/13	69.9	1,159.9	18.0	S	3.8	3.3	7.75	191.0	448.8
05	18.3	Tall Fescue Hay		06/24/13	06/24/13	108.7	1,803.9	28.1	S	6.0	5.1	12.05	93.9	220.6

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	68.4	**Calendar Year:**	2013
Applied Acres:	68.4	**Farm Code:**	BL037
WT Applied:	652.4	**Farm Name:**	BURNS FARM CORPORATION
DT Applied:	277.6	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.5769 W 85.2315

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	24.5	Tall Fescue Hay		07/30/13	07/30/13	102.2	1,696.3	26.4	S	5.6	4.8	11.33	118.2	277.7
02	31	Tall Fescue Pasture		07/31/13	07/31/13	77.2	1,281.3	19.9	S	4.0	3.6	8.56	112.9	265.4
03	12.9	Tall Fescue Pasture		07/30/13	07/30/13	76.4	1,268.0	19.7	S	4.0	3.6	8.47	46.5	109.3

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	409.7	**Calendar Year:**	2013
Applied Acres:	352.9	**Farm Code:**	BL038
WT Applied:	5,174.1	**Farm Name:**	Sheldon Property
DT Applied:	2,201.4	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.59455 W 85.21623

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	60.5	Corn Silage > 25 T/Ac		01/22/13	01/24/13	149.7	2,243.6	41.7	S	8.2	6.8	16.05	413.3	971.3
02	45.5	Corn Silage > 25 T/Ac		01/07/13	01/08/13	153.1	2,295.4	42.7	S	8.2	7.0	16.43	318.0	747.4
03	47.7	Soybeans		04/23/13	04/23/13	88.8	1,441.7	23.1	S	7.0	4.1	9.78	197.8	466.3
04	16.5	Soybeans		03/27/13	03/27/13	131.8	2,107.6	34.6	S	6.9	6.1	14.36	100.8	236.9
05	52	Soybeans		03/27/13	03/28/13	128.4	2,031.5	34.7	S	7.0	6.0	14.01	310.5	728.7
06	14.2	Corn Grain 176 - 200 bu		03/29/13	03/29/13	175.9	2,781.7	47.6	S	9.8	8.2	19.20	116.2	272.6
07	36.2	Corn Grain 176 - 200 bu		03/29/13	03/29/13	181.6	2,872.3	49.1	S	9.8	8.4	19.82	305.8	717.6
08	80.3	Soybeans		03/16/13	04/23/13	117.6	1,889.6	30.9	S	7.0	5.5	12.87	439.1	1033.3

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	192.8	**Calendar Year:**	2013
Applied Acres:	60.9	**Farm Code:**	BL039
WT Applied:	806.0	**Farm Name:**	SWAFFORD, JOHN & LEON
DT Applied:	343.5	**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
01	37.5	Tall Fescue Hay		02/16/13	02/19/13	136.8	2,091.1	37.2	S	7.6	6.3	14.69	234.8	551.0
06	23.4	Tall Fescue Pasture		02/16/13	02/16/13	101.5	1,551.1	27.6	S	5.5	4.6	10.90	108.7	255.0

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	75.6	**Calendar Year:**	2013
Applied Acres:	72.3	**Farm Code:**	BL040
WT Applied:	1,180.4	**Farm Name:**	BROWN, RICHARD
DT Applied:	501.9	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.61436 E 85.13698

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	1.4	Tall Fescue Pasture		04/03/13	04/03/13	109.6	1,756.1	28.5	S	5.6	5.1	11.93	7.1	16.7
02	1.8	Tall Fescue Pasture		04/03/13	04/03/13	94.4	1,512.2	24.6	S	5.6	4.4	10.27	7.9	18.5
03	8.8	Tall Fescue Pasture		04/03/13	04/03/13	82.1	1,316.6	21.4	S	5.6	3.8	8.94	33.5	78.7
05	9	Tall Fescue Pasture		04/03/13	04/03/13	103.7	1,662.2	27.0	S	5.6	4.8	11.29	43.2	101.6
06	22	Corn Grain 176 - 200 bu		04/10/13	04/11/13	178.3	2,857.2	46.4	S	9.7	8.3	19.41	181.6	427.0
07	29.3	Corn Grain 176 - 200 bu		04/11/13	04/11/13	168.6	2,702.7	43.9	S	9.7	7.8	18.36	228.7	537.9

Agronomic Loading Rate Summary Worksheet

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

Calendar Year:	2013
Farm Code:	BL041
Farm Name:	KNOX, JACKIE
State:	TN
County:	Bledsoe
Lat/Long:	N 35.57601 E 85.23795

Approved Acres:	155.4
Applied Acres:	112.8
WT Applied:	1,801.6
DT Applied:	707.2

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
1	29.3	Tall Fescue Pasture		08/20/13	08/20/13	100.6	1,591.4	31.7	S	5.9	5.0	13.17	145.6	385.9
2	38	Tall Fescue Hay		08/20/13	08/20/13	137.3	2,293.9	34.6	S	7.8	6.5	15.33	247.5	582.7
3	19.4	Tall Fescue Hay		08/26/13	08/27/13	134.0	2,140.1	41.6	S	8.2	6.6	17.58	128.5	341.1
5	26.1	Tall Fescue Hay		08/22/13	08/23/13	143.9	2,277.4	45.4	S	8.2	7.1	18.85	185.7	492.0

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	7.8	**Calendar Year:**	2013
Applied Acres:	7.8	**Farm Code:**	BL043
WT Applied:	125.6	**Farm Name:**	RAINS, CHAD
DT Applied:	53.3	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.52736 E 85.27268

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
1	7.8	Tall Fescue Hay		04/26/13	04/26/13	146.3	2,374.4	38.1	S	7.7	6.8	16.10	53.3	125.6

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	84.1	**Calendar Year:**	2013
Applied Acres:	77.2	**Farm Code:**	BL044
WT Applied:	1,370.2	**Farm Name:**	HAMILTON JR, GEORGE
DT Applied:	581.2	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.49765 E 85.26693

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
1	23	Tall Fescue Hay		04/26/13	04/26/13	141.0	2,288.9	36.7	S	7.7	6.6	15.52	151.4	357.0
2	24.2	Corn Grain 176 - 200 bu		04/26/13	04/26/13	178.8	2,903.0	46.6	S	9.8	8.3	19.68	202.0	476.4
3	30	Corn Grain 176 - 200 bu		04/26/13	04/30/13	162.6	2,639.5	42.4	S	9.8	7.6	17.90	227.7	536.9

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	111.4	**Calendar Year:**	2013
Applied Acres:	111.4	**Farm Code:**	BL047
WT Applied:	1,402.6	**Farm Name:**	PENDERGRASS, LEROY
DT Applied:	596.6	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.61239 E 85.17887

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
1	71.3	Corn Grain 176 - 200 bu		06/13/13	06/14/13	99.9	1,655.4	25.8	S	9.9	4.7	11.05	334.9	787.5
2	40.1	Corn Grain 176 - 200 bu		06/14/13	06/15/13	138.4	2,296.4	35.7	S	9.9	6.5	15.34	261.7	615.1

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	22.3	**Calendar Year:**	2013
Applied Acres:	22.3	**Farm Code:**	BL049
WT Applied:	414.4	**Farm Name:**	PENDERGRASS, LEROY
DT Applied:	176.2	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.66786 E 85.13388

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	22.3	Corn Grain 176 - 200 bu		03/15/13	03/15/13	170.7	2,736.0	44.5	S	9.7	7.9	18.59	176.2	414.4

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	153.4	**Calendar Year:**	2013
Applied Acres:	88.2	**Farm Code:**	BL050
WT Applied:	1,609.1	**Farm Name:**	HART, JOHN
DT Applied:	683.4	**State:**	TN
		County:	Bledsoe
		Lat/Long:	N 35.60941 E 85.16962

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
1	8.4	Tall Fescue Hay		04/15/13	04/15/13	141.9	2,273.9	37.0	S	7.6	6.6	15.45	55.2	129.7
2	18.3	Tall Fescue Hay		04/15/13	04/15/13	141.7	2,270.4	36.9	S	7.6	6.6	15.42	120.0	282.2
4	22.7	Corn Grain 176 - 200 bu		04/15/13	04/15/13	178.2	2,856.0	46.4	S	9.7	8.2	19.40	187.3	440.4
5	38.8	Corn Grain 176 - 200 bu		04/16/13	04/16/13	177.2	2,876.3	46.2	S	9.8	8.3	19.50	321.0	756.7

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	199.8	**Calendar Year:**	2013
Applied Acres:	167.7	**Farm Code:**	GY001
WT Applied:	2,999.2	**Farm Name:**	DURANT, BRUNO
DT Applied:	1,172.7	**State:**	TN
		County:	Grundy
		Lat/Long:	N 35.3711 W 85.7503

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
03	59.9	Corn Silage > 25 T/Ac		04/22/13	05/24/13	151.4	2,277.0	50.1	S	8.8	7.4	19.73	442.3	1182.0
04	58.4	Corn Silage > 25 T/Ac		04/10/13	04/16/13	155.2	2,487.2	40.4	S	8.3	7.2	16.90	419.6	986.7
05	49.4	Corn Silage > 25 T/Ac		04/18/13	05/24/13	129.0	1,940.2	42.7	S	8.8	6.3	16.81	310.8	830.6

Agronomic Loading Rate Summary Worksheet

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

Calendar Year:	2013
Farm Code:	GY008
Farm Name:	AHEARN, STEVE
State:	TN
County:	Grundy
Lat/Long:	N 35.3843 W 85.685

Approved Acres:	120.7
Applied Acres:	113
WT Applied:	1,119.1
DT Applied:	476.0

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	Tall Fescue Hay		06/25/13	06/25/13	104.4	1,729.1	27.0	S	5.6	4.9	11.54	58.9	138.4
02	7.5	Tall Fescue Pasture		06/26/13	06/26/13	79.6	1,318.3	20.6	S	4.3	3.7	8.80	28.1	66.0
03	7.6	Tall Fescue Pasture		06/26/13	06/26/13	71.7	1,187.0	18.5	S	4.1	3.4	7.92	25.6	60.2
04	14.6	Tall Fescue Pasture		06/25/13	06/25/13	77.6	1,285.6	20.0	S	4.1	3.6	8.58	53.3	125.2
05	8.5	Tall Fescue Hay		06/26/13	06/26/13	105.2	1,743.4	27.2	S	5.6	4.9	11.63	42.0	98.9
06	21.9	Tall Fescue Hay		06/26/13	06/28/13	109.5	1,814.8	28.3	S	5.6	5.2	12.11	112.8	265.2
07	10.1	Tall Fescue Pasture		06/26/13	06/26/13	70.3	1,164.8	18.2	S	4.2	3.3	7.77	33.4	78.5
08	6.2	Tall Fescue Pasture		06/28/13	06/28/13	98.3	1,630.5	25.4	S	5.7	4.6	10.90	28.7	67.5
09	2.9	Tall Fescue Pasture		06/28/13	06/28/13	75.7	1,256.6	19.6	S	4.0	3.6	8.40	10.4	24.4
10	21.7	Tall Fescue Pasture		06/26/13	06/26/13	81.2	1,345.5	21.0	S	4.2	3.8	8.98	82.8	194.8

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	220.5	**Calendar Year:**	2013
Applied Acres:	217.9	**Farm Code:**	GY013
WT Applied:	3,626.4	**Farm Name:**	DURANT, BRUNO
DT Applied:	1,501.7	**State:**	TN
		County:	Grundy
		Lat/Long:	N 35.3829 W 85.74241

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	47.8	Corn Silage > 25 T/Ac		05/25/13	05/27/13	123.4	1,856.1	40.9	S	8.8	6.0	16.08	287.7	768.9
03	170.1	Corn Silage > 25 T/Ac		05/27/13	05/31/13	153.3	2,481.9	39.9	S	8.4	7.1	16.80	1214.0	2857.6

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	89.9	**Calendar Year:**	2013
Applied Acres:	43.9	**Farm Code:**	HA018
WT Applied:	737.8	**Farm Name:**	SHELLY, JOHNNY
DT Applied:	272.1	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.2766 W 84.9671

Crop Year: 2014

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		09/11/13	09/13/13	134.5	2,134.1	39.6	S	6.9	6.4	17.44	250.4	678.4
04	5	Tall Fescue Pasture		09/10/13	09/11/13	92.3	1,451.7	26.7	S	5.2	4.3	11.89	21.7	59.4

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	69.7	**Calendar Year:**	2013
Applied Acres:	30.8	**Farm Code:**	HA043
WT Applied:	394.9	**Farm Name:**	LYONS, JOHN
DT Applied:	167.9	**State:**	TN
		County:	Hamilton
		Lat/Long:	N 35.1979 W 85.0762

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	30.8	Bermudagrass, Common – Hay		05/16/13	05/16/13	116.0	1,921.5	30.0	S	11.6	5.5	12.82	167.9	394.9

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	725	**Calendar Year:**	2013
Applied Acres:	511	**Farm Code:**	MR011
WT Applied:	5,141.4	**Farm Name:**	FULTS, JOHNNY
DT Applied:	2,181.9	**State:**	TN
		County:	Marion
		Lat/Long:	N 35.19174 W 85.6414

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	97.5	Tall Fescue Hay		07/16/13	07/17/13	112.2	1,862.0	29.0	S	6.2	5.3	12.44	516.2	1213.0
02	47	Tall Fescue Hay		07/16/13	07/16/13	110.6	1,832.2	28.6	S	6.3	5.2	12.23	244.4	574.7
06	20.9	Tall Fescue Hay		07/18/13	07/18/13	101.3	1,681.5	26.2	S	5.4	4.8	11.24	99.9	234.8
11	29.5	Tall Fescue Hay		07/15/13	07/15/13	108.5	1,797.4	28.0	S	6.0	5.1	11.99	150.4	353.8
12	54.1	Tall Fescue Hay		07/12/13	07/12/13	104.0	1,723.1	26.9	S	6.0	4.9	11.50	264.5	621.9
13	14.6	Tall Fescue Hay		07/15/13	07/15/13	94.7	1,568.6	24.5	S	5.4	4.5	10.47	65.0	152.8
14	19.4	Tall Fescue Pasture		07/12/13	07/12/13	78.0	1,291.8	20.1	S	3.9	3.7	8.62	71.1	167.2
15	27.4	Tall Fescue Pasture		07/13/13	07/13/13	70.3	1,164.9	18.2	S	3.9	3.3	7.77	90.6	213.0

Crop Year: 2014

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	22.9	Tall Fescue Pasture		10/18/13	10/18/13	76.2	1,273.5	19.2	S	5.0	3.6	8.51	82.8	194.9
04	29.5	Tall Fescue Pasture		10/21/13	10/21/13	73.2	1,222.0	18.4	S	5.0	3.5	8.17	102.3	241.0
05	18	Tall Fescue Pasture		10/21/13	10/21/13	66.3	1,106.6	16.7	S	5.0	3.1	7.40	56.6	133.1
07	90.2	Tall Fescue Pasture		10/23/13	10/25/13	70.8	1,168.4	17.7	S	4.8	3.3	7.84	298.3	707.6
09	16	Tall Fescue Pasture		10/25/13	10/25/13	76.3	1,242.2	17.4	S	4.7	3.5	8.45	55.6	135.1
10	24	Tall Fescue Pasture		10/22/13	10/22/13	74.1	1,236.8	18.6	S	4.9	3.5	8.27	84.3	198.4

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	35.2	**Calendar Year:**	2013
Applied Acres:	35.2	**Farm Code:**	MR021
WT Applied:	661.8	**Farm Name:**	SMITH, JOYCE
DT Applied:	240.8	**State:**	TN
		County:	Marion
		Lat/Long:	N 35.1799 W 85.6657

Crop Year: 2014

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	12.4	Tall Fescue Hay		10/28/13	10/28/13	146.5	2,303.6	42.4	S	7.8	6.9	18.86	85.5	233.9
02	9.5	Tall Fescue Hay		10/28/13	10/28/13	143.0	2,232.1	40.7	S	7.6	6.6	18.24	63.0	173.3
03	13.3	Tall Fescue Hay		10/28/13	10/28/13	150.5	2,343.5	42.6	S	7.6	6.9	19.14	92.3	254.6

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	21.3	**Calendar Year:**	2013
Applied Acres:	21.3	**Farm Code:**	MR028
WT Applied:	169.3	**Farm Name:**	BLEVINS, DEWEY
DT Applied:	72.0	**State:**	TN
		County:	Marion
		Lat/Long:	N 35.1455 W 85.671

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	21.3	Tall Fescue Pasture		07/13/13	07/13/13	71.7	1,189.3	18.5	S	4.1	3.4	7.95	72.0	169.3

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	77.5	**Calendar Year:**	2013
Applied Acres:	77.5	**Farm Code:**	MR029
WT Applied:	309.5	**Farm Name:**	GWYNN, PHILIP
DT Applied:	114.7	**State:**	TN
		County:	Marion
		Lat/Long:	N 35.1915 W 85.3983

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	77.5	Corn Grain 176 - 200 bu		04/15/13	06/04/13	16.0	252.2	5.2	S	10.3	0.8	2.09	61.1	161.9

Crop Year: 2014

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	77.5	Wheat		10/14/13	11/05/13	14.9	233.2	4.3	S	3.9	0.7	1.90	53.7	147.6

Agronomic Loading Rate Summary Worksheet

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

Calendar Year:	2013
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:	1,271.5
DT Applied:	533.7

Crop Year: 2014

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	Tall Fescue Hay		09/12/13	09/12/13	114.7	1,882.5	26.8	S	7.4	5.3	12.83	160.5	387.6
02	18.9	Tall Fescue Hay		09/16/13	09/16/13	85.9	1,459.1	21.0	S	7.1	4.1	9.66	77.3	182.6
03	13	Tall Fescue Hay		09/12/13	09/12/13	96.6	1,640.9	23.6	S	7.1	4.6	10.87	59.8	141.3
04	37.5	Tall Fescue Hay		09/12/13	09/13/13	97.5	1,644.2	23.6	S	7.1	4.6	10.95	173.1	410.7
05	11.7	Tall Fescue Hay		09/13/13	09/13/13	85.4	1,450.4	20.9	S	7.1	4.1	9.61	47.6	112.4
06	3	Tall Fescue Hay		09/12/13	09/12/13	109.9	1,804.2	25.7	S	6.9	5.1	12.30	15.3	36.9

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	143.5	**Calendar Year:**	2013
Applied Acres:	131.5	**Farm Code:**	RH004
WT Applied:	2,181.9	**Farm Name:**	ARCHER, EUGENE
DT Applied:	782.8	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.5415 W 84.9046

Crop Year: 2014

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		12/13/13	12/16/13	161.7	2,558.3	45.6	S	8.3	7.3	20.42	208.1	579.8
02	40.3	Corn Grain 176 - 200 bu		12/16/13	12/18/13	127.7	2,017.5	36.0	S	6.7	5.8	16.11	233.0	649.2
03	62.8	Corn Grain 176 - 200 bu		12/18/13	12/20/13	121.0	1,891.5	34.0	S	7.2	5.4	15.17	341.6	952.8

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	87.1	**Calendar Year:**	2013
Applied Acres:	61.7	**Farm Code:**	RH005
WT Applied:	732.7	**Farm Name:**	DENTON, GUY
DT Applied:	271.2	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.5266 W 84.9224

Crop Year: 2014

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		09/25/13	09/25/13	72.1	1,149.6	21.4	S	4.2	3.5	9.38	54.0	145.4
02	11.3	Tall Fescue Hay		09/26/13	09/26/13	89.1	1,413.1	26.3	S	5.6	4.3	11.54	48.2	130.4
03	11.6	Tall Fescue Hay		09/25/13	09/25/13	107.0	1,696.5	31.5	S	5.7	5.1	13.86	59.4	160.8
04	15.8	Wheat	Small Grain	09/26/13	09/26/13	110.3	1,749.0	32.5	S	6.0	5.3	14.29	83.5	225.7
07	7.5	Tall Fescue Pasture		09/27/13	09/27/13	72.5	1,149.1	21.4	S	5.7	3.5	9.39	26.0	70.4

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	67.7	**Calendar Year:**	2013
Applied Acres:	67.7	**Farm Code:**	RH006
WT Applied:	962.9	**Farm Name:**	DENTON, GUY
DT Applied:	407.7	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.573 W 84.9468

Crop Year: 2014

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		09/23/13	09/23/13	138.9	2,359.1	33.9	S	7.3	6.6	15.62	47.0	110.9
02	12.9	Corn Grain 176 - 200 bu		09/23/13	09/23/13	141.4	2,400.8	34.5	S	7.9	6.7	15.90	86.8	205.1
03	15.7	Corn Grain 176 - 200 bu		09/23/13	09/24/13	121.2	2,059.0	29.6	S	7.2	5.8	13.64	90.6	214.1
04	16.2	Corn Grain 176 - 200 bu		09/24/13	09/24/13	136.8	2,323.6	33.4	S	7.5	6.5	15.39	105.6	249.3
05	15.8	Tall Fescue Hay		09/24/13	09/24/13	103.3	1,754.4	25.2	S	5.7	4.9	11.62	77.7	183.6

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	158.1	**Calendar Year:**	2013
Applied Acres:	144.3	**Farm Code:**	RH007
WT Applied:	1,791.7	**Farm Name:**	Massengale, Don
DT Applied:	702.4	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.5125 W 84.9408

Crop Year: 2014

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		10/08/13	10/08/13	91.5	1,450.3	27.0	S	5.5	4.4	11.85	33.3	90.0
02	5.9	Tall Fescue Pasture		10/08/13	10/08/13	80.3	1,273.3	23.7	S	4.2	3.8	10.40	22.7	61.4
03	13.1	Tall Fescue Pasture		10/08/13	10/08/13	80.9	1,282.7	23.8	S	4.0	3.9	10.48	50.8	137.3
04	12.8	Tall Fescue Hay		10/08/13	10/09/13	105.5	1,662.1	30.7	S	5.3	5.0	13.60	63.8	174.1
05	13.7	Wheat	Corn Silage 19 -25 T/Ac	10/07/13	10/09/13	109.4	1,724.6	31.8	S	7.8	5.2	14.11	70.9	193.4
06	16.1	Wheat	Corn Silage 19 -25 T/Ac	10/07/13	10/07/13	117.5	1,864.0	34.6	S	8.4	5.6	15.23	90.6	245.2
08	7.2	Corn Grain 176 - 200 bu		09/17/13	09/17/13	122.0	2,071.5	29.8	S	6.5	5.8	13.72	41.8	98.8
09	10.4	Wheat	Sorghum Grain or Silage	09/17/13	09/18/13	95.4	1,619.6	23.3	S	4.9	4.5	10.72	47.2	111.5
10	4	Tall Fescue Hay		09/18/13	09/18/13	93.3	1,585.2	22.8	S	5.6	4.4	10.50	17.8	42.0
11	15.6	Tall Fescue Hay		09/18/13	09/18/13	88.0	1,495.1	21.5	S	5.1	4.2	9.90	65.4	154.5
13	17.6	Tall Fescue Pasture		10/04/13	10/04/13	110.1	1,807.9	28.4	S	5.7	5.2	12.98	91.3	228.5
14	20.3	Tall Fescue Pasture		10/04/13	10/04/13	112.4	1,879.5	26.8	S	5.6	5.3	12.57	106.7	255.1

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	54.8	**Calendar Year:**	2013
Applied Acres:	43.3	**Farm Code:**	RH008
WT Applied:	620.8	**Farm Name:**	FREELS, EDSEL
DT Applied:	227.0	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.5154 W 84.9332

Crop Year: 2014

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	Tall Fescue Pasture		10/28/13	10/28/13	93.2	1,466.0	27.0	S	5.7	4.4	12.01	62.3	170.5
03	3.9	Tall Fescue Hay		10/28/13	10/28/13	96.4	1,516.4	27.9	S	7.8	4.5	12.42	17.7	48.4
04	15.5	Wheat	Sorghum Grain or Silage	10/28/13	10/29/13	155.4	2,444.9	45.0	S	8.5	7.3	20.02	113.5	310.3
05	9.7	Tall Fescue Hay		10/29/13	10/29/13	73.3	1,152.5	21.2	S	7.8	3.5	9.44	33.5	91.5

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	29.6	**Calendar Year:**	2013
Applied Acres:	24.5	**Farm Code:**	RH009
WT Applied:	418.6	**Farm Name:**	HENDERSON, DORRIS
DT Applied:	177.2	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.579 W 84.9523

Crop Year: 2014

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	6.7	Corn Grain 176 - 200 bu		09/20/13	09/20/13	138.5	2,351.2	33.8	S	7.2	6.6	15.57	44.2	104.3
03	17.8	Tall Fescue Hay		09/20/13	09/20/13	157.0	2,665.9	38.4	S	7.9	7.5	17.65	133.1	314.2

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	43.8	**Calendar Year:**	2013
Applied Acres:	43.8	**Farm Code:**	RH010
WT Applied:	748.6	**Farm Name:**	FREELS, DARREN
DT Applied:	281.3	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.51542 W 84.93949

Crop Year: 2014

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
1	12.7	Corn Silage > 25 T/Ac		10/24/13	10/24/13	152.6	2,409.1	49.6	S	8.9	7.5	19.92	95.6	253.0
2	8.1	Corn Silage > 25 T/Ac		10/24/13	10/25/13	152.4	2,401.1	48.8	S	8.8	7.5	19.83	60.4	160.6
3	3.6	Tall Fescue Hay		10/25/13	10/25/13	137.1	2,154.4	42.8	S	8.0	6.6	17.75	23.9	63.9
4	9.4	Tall Fescue Hay		10/25/13	10/25/13	71.9	1,134.2	23.4	S	8.1	3.5	9.38	33.3	88.2
5	10	Tall Fescue Hay		10/25/13	10/25/13	141.5	2,221.6	43.7	S	7.9	6.8	18.29	68.1	182.9

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	72.6	**Calendar Year:**	2013
Applied Acres:	72.6	**Farm Code:**	RH011
WT Applied:	924.6	**Farm Name:**	HOUSLEY, DONALD
DT Applied:	386.6	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.614 W 84.8704

Crop Year: 2014

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		11/05/13	11/05/13	130.4	2,180.6	31.1	S	6.6	6.1	14.58	113.4	271.2
02	14.8	Tall Fescue Hay		11/04/13	11/04/13	115.3	1,927.6	27.5	S	5.7	5.4	12.89	79.8	190.8
03	18.4	Tall Fescue Hay		11/05/13	11/05/13	104.9	1,753.4	25.0	S	5.8	4.9	11.72	90.2	215.7
04	20.8	Tall Fescue Hay		11/04/13	11/04/13	106.2	1,774.8	25.3	S	5.8	5.0	11.87	103.2	246.9

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	83.8	**Calendar Year:**	2013
Applied Acres:	83.8	**Farm Code:**	RH013
WT Applied:	1,399.4	**Farm Name:**	BOWERS, DEWAYNE
DT Applied:	516.6	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.5443 W 84.8962

Crop Year: 2014

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		10/21/13	10/30/13	132.6	2,096.2	41.1	S	7.5	6.5	17.31	225.8	602.4
02	20.3	Corn Grain 176 - 200 bu		10/30/13	10/30/13	103.5	1,627.9	30.0	S	7.1	4.9	13.33	99.0	270.6
03	28.7	Corn Grain 176 - 200 bu		10/30/13	10/31/13	143.2	2,242.4	41.0	S	7.1	6.7	18.34	191.7	526.4

Agronomic Loading Rate Summary Worksheet

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

Calendar Year:	2013
Farm Code:	RH014
Farm Name:	BrOOKS, HOWARD
State:	TN
County:	Rhea
Lat/Long:	N 35.4506 W 84.9483

Approved Acres:	192.3
Applied Acres:	192.3
WT Applied:	3,996.1
DT Applied:	1,458.9

Crop Year: 2014

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		11/05/13	11/05/13	103.7	1,645.0	30.6	S	6.1	5.0	13.44	16.9	45.7
02	23.9	Tall Fescue Hay		11/05/13	11/05/13	96.2	1,525.3	28.3	S	5.7	4.6	12.46	110.1	297.8
03	1.5	Bermudagrass, Hybrid – Hay		11/05/13	11/05/13	204.6	3,244.8	60.3	S	17.1	9.8	26.51	14.7	39.8
04	27.2	Wheat	Corn Grain 176 - 200 bu	10/14/13	10/14/13	209.5	3,261.9	59.3	S	11.1	9.7	26.64	262.7	724.6
05	2.8	Bermudagrass, Hybrid – Hay		10/15/13	10/15/13	124.7	1,942.0	35.3	S	16.4	5.8	15.86	16.1	44.4
06	12.4	Corn Grain 176 - 200 bu		11/04/13	11/05/13	134.0	2,124.6	39.5	S	7.5	6.4	17.36	79.6	215.2
07	8.6	Wheat	Corn Grain 176 - 200 bu	10/08/13	10/08/13	210.5	3,314.7	61.1	S	12.0	9.9	27.13	85.5	233.4
08	34.8	Wheat	Corn Grain 176 - 200 bu	10/08/13	10/09/13	210.1	3,294.0	60.4	S	11.3	9.8	26.95	342.1	938.0
09	23.1	Corn Grain 176 - 200 bu		11/04/13	11/04/13	128.7	2,041.5	37.9	S	7.3	6.2	16.68	142.4	385.2
10	33.6	Corn Grain 176 - 200 bu		10/10/13	10/14/13	152.9	2,380.8	43.3	S	8.1	7.0	19.44	236.9	653.3
11	21	Corn Grain 176 - 200 bu		10/15/13	10/15/13	156.8	2,441.5	44.4	S	8.3	7.2	19.94	151.8	418.8

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	88.6	**Calendar Year:**	2013
Applied Acres:	77.1	**Farm Code:**	RH015
WT Applied:	1,150.1	**Farm Name:**	PRITCHETT, JIM
DT Applied:	416.0	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.66295 W 84.86805

Crop Year: 2014

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
2	29.6	Tall Fescue Pasture		11/19/13	11/19/13	105.7	1,645.5	29.9	S	5.5	4.9	13.44	144.2	397.8
3	18.3	Tall Fescue Pasture		11/20/13	11/20/13	115.5	1,798.8	32.7	S	5.5	5.3	14.69	97.5	268.9
4	29.2	Tall Fescue Hay		11/20/13	11/21/13	130.7	2,053.8	36.9	S	7.5	6.0	16.55	174.3	483.4

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	44.8	**Calendar Year:**	2013
Applied Acres:	44.8	**Farm Code:**	RH016
WT Applied:	407.1	**Farm Name:**	PRITCHETT, JD
DT Applied:	148.2	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.6219 W 84.87831

Crop Year: 2014

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
1	19.2	Tall Fescue Pasture		11/15/13	11/15/13	92.2	1,442.7	26.4	S	5.6	4.3	11.80	82.5	226.6
2	25.6	Tall Fescue Pasture		11/15/13	11/15/13	55.1	862.4	15.8	S	5.6	2.6	7.05	65.7	180.5

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	193.4	**Calendar Year:**	2013
Applied Acres:	168.5	**Farm Code:**	RH017
WT Applied:	2,385.0	**Farm Name:**	SMITH, DOC
DT Applied:	871.2	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.62722 W 84.88584

Crop Year: 2014

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
1	22.8	Native Grasses Hay or Pasture		11/07/13	11/07/13	104.1	1,638.0	30.1	S	5.7	4.9	13.41	111.8	305.8
10	9.6	Native Grasses Hay or Pasture		11/13/13	11/14/13	105.6	1,661.1	30.6	S	5.7	5.0	13.60	47.8	130.6
11	12.4	Native Grasses Hay or Pasture		11/14/13	11/14/13	87.1	1,370.4	25.2	S	5.7	4.1	11.22	50.9	139.2
2	11.5	Tall Fescue Pasture		11/08/13	11/08/13	110.2	1,733.2	31.9	S	5.7	5.2	14.19	59.7	163.2
3	8.4	Native Grasses Hay or Pasture		11/11/13	11/11/13	107.3	1,688.0	31.1	S	5.7	5.1	13.82	42.5	116.1
4	15.2	Tall Fescue Hay		11/06/13	11/06/13	150.7	2,347.9	42.7	S	7.6	7.0	19.18	105.8	291.5
5	39.1	Native Grasses Hay or Pasture		11/06/13	11/06/13	106.0	1,666.3	30.6	S	5.6	5.0	13.64	194.9	533.4
6	5.9	Native Grasses Hay or Pasture		11/07/13	11/07/13	108.9	1,712.7	31.5	S	5.7	5.1	14.03	30.3	82.8
7	17.8	Tall Fescue Hay		11/12/13	11/12/13	142.6	2,242.7	41.3	S	7.8	6.7	18.37	119.6	326.9
8	14.3	Native Grasses Hay or Pasture		11/13/13	11/13/13	102.5	1,612.3	29.7	S	5.7	4.8	13.20	69.0	188.8
9	11.5	Tall Fescue Pasture		11/14/13	11/14/13	72.0	1,131.7	20.8	S	5.7	3.4	9.27	39.0	106.6

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	116.7	**Calendar Year:**	2013
Applied Acres:	33.1	**Farm Code:**	RH020
WT Applied:	410.3	**Farm Name:**	HARRISON, ALVIN
DT Applied:	147.3	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.61402 W 84.8704

Crop Year: 2014

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
2	33.1	Tall Fescue Hay		11/25/13	11/25/13	98.2	1,553.4	27.7	S	7.5	4.5	12.40	147.3	410.3

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	192.3	**Calendar Year:**	2013
Applied Acres:	107.1	**Farm Code:**	RH023
WT Applied:	1,966.3	**Farm Name:**	ROBERTS, CHARLES
DT Applied:	705.8	**State:**	TN
		County:	Rhea
		Lat/Long:	N 35.49482 E 84.9586

Crop Year: 2014

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
1	14.8	Tall Fescue Hay		12/03/13	12/03/13	142.1	2,248.1	40.0	S	7.5	6.4	17.94	95.3	265.5
3	26.6	Tall Fescue Hay		12/02/13	12/02/13	140.6	2,224.4	39.6	S	7.5	6.4	17.75	169.5	472.2
4	43	Corn Silage > 25 T/Ac		12/03/13	12/05/13	153.1	2,421.6	43.1	S	8.2	6.9	19.33	298.3	831.0
6	22.7	Tall Fescue Hay		12/06/13	12/06/13	138.7	2,194.5	39.1	S	7.5	6.3	17.51	142.7	397.6

Agronomic Loading Rate Summary Worksheet

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

Approved Acres:	329.2	**Calendar Year:**	2013
Applied Acres:	329.2	**Farm Code:**	SE012
WT Applied:	4,024.1	**Farm Name:**	Studer, James
DT Applied:	1,530.9	**State:**	TN
		County:	Sequatchie
		Lat/Long:	N 35.53862 W 85.47806

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	33.1	Tall Fescue Pasture		04/08/13	04/08/13	59.1	903.9	16.1	S	3.2	2.7	6.35	89.6	210.2
02	45.1	Tall Fescue Pasture		04/08/13	04/09/13	59.4	908.6	16.2	S	3.2	2.7	6.38	122.7	287.9
03	119.2	Tall Fescue Hay		05/14/13	05/21/13	106.5	1,576.6	36.9	S	6.2	5.3	14.05	626.4	1675.1
04	112.5	Tall Fescue Hay		05/08/13	05/13/13	107.8	1,596.6	37.4	S	6.2	5.3	14.23	598.7	1601.0
05	12.8	Tall Fescue Hay		05/22/13	05/22/13	97.0	1,458.7	32.1	S	6.4	4.7	12.64	60.5	161.8
06	6.5	Tall Fescue Hay		05/22/13	05/22/13	103.9	1,563.1	34.4	S	6.5	5.1	13.55	32.9	88.1

APPENDIX B (2)
2013 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: 2013

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: A08KL

Calendar Year: 2013

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: 2013

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
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: 2013

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
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: A8GP

Calendar Year: 2013

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
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: 2013

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: A11KF

Calendar Year: 2013

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: 2013

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
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: 2013

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: 2013

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
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: 2013

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: 2013

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
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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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
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: 2013

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
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: 2013

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: 2013

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
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: 2013

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: 2013

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
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: 2013

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
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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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
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: 2013

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
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: 2013

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
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: 2013

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
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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
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: 2013

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
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: 2013

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
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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	6.30		0.13	0.15	1.18	5.15	0.66	0.01	0.63	1.91	0.13	16.87
02	25.1	6.87		0.13	0.11	0.73	3.43	0.44	0.01	0.41	1.58	0.13	11.53
03	20.4	6.80		0.12	0.10	0.69	3.28	0.43	0.01	0.39	1.52	0.12	11.06
04	15.9	1.63		0.07	0.05	0.41	1.72	0.20	0.00	0.19	0.76	0.06	5.47

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL006

Calendar Year: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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				0.04	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: 2013

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: 2013

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: 2013

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	0.08	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				0.09	0.07	0.62	2.07	0.24	0.00	0.23	0.73	0.12	6.57
04				0.09	0.08	0.67	2.17	0.26	0.00	0.23	0.71	0.14	6.88
05				0.08	0.07	0.63	2.02	0.23	0.00	0.22	0.67	0.13	6.38
06				0.08	0.08	0.67	2.21	0.25	0.00	0.24	0.69	0.17	6.97
07				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: 2013

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	5.74		0.19	0.18	1.30	4.83	0.77	0.01	0.56	1.67	0.27	15.88
02	22.5	4.14		0.04	0.04	0.24	1.16	0.19	0.00	0.14	0.43	0.05	4.20
03				0.05	0.05	0.42	1.42	0.16	0.00	0.19	0.48	0.07	4.65
04				0.02	0.04	0.32	1.30	0.21	0.00	0.25	0.44	0.03	4.80
05				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: 2013

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	3.30		0.11	0.11	0.82	3.13	0.39	0.00	0.35	1.14	0.20	10.20
02	22.9	4.86		0.14	0.14	0.99	3.80	0.54	0.01	0.44	1.48	0.22	12.67
03				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	5.09		0.14	0.13	0.94	3.68	0.51	0.01	0.43	1.45	0.21	12.30
06	20.9	4.81		0.17	0.16	1.22	4.50	0.58	0.01	0.51	1.69	0.27	14.84
07	28.4	4.38		0.16	0.15	1.16	4.32	0.54	0.01	0.49	1.58	0.27	14.14
08	16.6	4.97		0.15	0.14	1.02	3.94	0.55	0.01	0.46	1.53	0.23	13.10
09				0.11	0.11	0.95	3.09	0.37	0.00	0.33	0.98	0.22	9.70
10				0.10	0.09	0.70	2.49	0.35	0.00	0.27	0.78	0.19	7.91
11				0.09	0.08	0.60	2.14	0.30	0.00	0.24	0.68	0.17	6.76
12				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: 2013

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				0.09	0.09	0.70	2.48	0.33	0.00	0.27	0.78	0.19	7.90
02	33.9	4.74		0.15	0.16	1.06	4.41	0.61	0.01	0.50	1.57	0.26	14.47

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL024

Calendar Year: 2013

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	0.54	2.29	0.30	0.00	0.27	0.72	0.17	7.20
02				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: 2013

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	48.9	3.33		0.09	0.09	0.63	2.42	0.28	0.00	0.30	0.97	0.18	7.98
02	50.6	3.82		0.08	0.08	0.55	2.29	0.27	0.00	0.28	0.93	0.16	7.65

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL026

Calendar Year: 2013

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	0.08	0.72	2.32	0.28	0.00	0.25	0.76	0.15	7.31
02				0.13	0.11	1.00	3.22	0.39	0.00	0.34	1.06	0.20	10.17
03				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				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: 2013

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: 2013

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	4.90		0.21	0.20	1.57	5.55	0.77	0.01	0.60	1.78	0.34	17.93
02	28.9	6.14		0.19	0.19	1.44	5.37	0.78	0.01	0.58	1.71	0.31	17.63
03	40.3	5.73		0.24	0.28	2.31	8.52	1.11	0.02	0.98	2.51	0.37	27.16
04	4.7	5.91		0.20	0.20	1.53	5.46	0.76	0.01	0.58	1.71	0.32	17.79
05	24.2	6.36		0.19	0.18	1.41	5.10	0.68	0.01	0.55	1.64	0.29	16.72
06	29.8	3.27		0.11	0.12	0.87	3.26	0.45	0.00	0.35	0.97	0.20	10.53
07	14.1	4.39		0.16	0.16	1.22	4.45	0.62	0.01	0.47	1.37	0.26	14.44
08	14.2	4.16		0.13	0.16	1.35	5.34	0.64	0.01	0.66	1.77	0.17	17.05

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL029

Calendar Year: 2013

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: 2013

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: 2013

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	13.2	5.00		0.05	0.05	0.26	1.43	0.21	0.00	0.18	0.70	0.06	5.10
02	50.2	3.92		0.09	0.09	0.61	2.44	0.29	0.00	0.30	1.00	0.17	8.08
03	22.8	4.47		0.08	0.09	0.64	2.49	0.29	0.00	0.30	1.01	0.16	8.40
04	56.2	2.53		0.03	0.03	0.13	0.71	0.12	0.00	0.09	0.32	0.03	2.54
05	34.4	5.99		0.07	0.07	0.32	1.67	0.37	0.00	0.23	0.63	0.08	5.87
06	20.3	6.40		0.06	0.06	0.37	1.79	0.30	0.00	0.22	0.67	0.08	6.49
07	50.6	3.56		0.07	0.08	0.61	2.23	0.25	0.00	0.26	0.88	0.15	7.39
08	56.7	6.02		0.13	0.13	0.95	3.49	0.52	0.01	0.42	1.21	0.24	11.53
09	33.8	5.98		0.12	0.12	0.84	3.46	0.42	0.01	0.40	1.17	0.22	11.53
10	32.3	5.73		0.12	0.12	0.82	3.36	0.41	0.01	0.39	1.14	0.21	11.22

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL032

Calendar Year: 2013

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: 2013

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				0.15	0.15	1.07	3.95	0.54	0.01	0.43	1.23	0.29	12.42
02				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				0.12	0.13	1.02	3.51	0.40	0.00	0.37	1.08	0.27	10.98
06				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				0.08	0.08	0.69	2.22	0.35	0.00	0.23	0.70	0.15	7.10
09				0.04	0.04	0.30	0.99	0.16	0.00	0.10	0.31	0.06	3.16
10				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: 2013

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	13.8	4.82		0.16	0.17	1.16	4.57	0.60	0.01	0.53	1.68	0.30	14.85
02	30.4	5.60		0.20	0.20	1.40	5.38	0.72	0.01	0.62	1.91	0.35	17.65
03	57.9	3.30		0.12	0.12	0.84	3.21	0.42	0.00	0.37	1.18	0.20	10.44
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05	18.3	5.13		0.14	0.14	0.95	3.88	0.48	0.01	0.45	1.47	0.25	12.72
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: 2013

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	4.82		0.11	0.12	0.64	3.17	0.57	0.01	0.36	1.18	0.15	10.75
02	31	3.64		0.08	0.09	0.49	2.41	0.41	0.00	0.27	0.88	0.11	8.21
03	12.9	3.61		0.08	0.09	0.48	2.39	0.40	0.00	0.26	0.87	0.11	8.14

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL038

Calendar Year: 2013

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	60.5	6.83		0.06	0.07	0.41	1.94	0.32	0.00	0.21	0.54	0.08	6.65
02	45.5	6.99		0.06	0.07	0.41	1.98	0.33	0.00	0.22	0.55	0.09	6.81
03	47.7	4.15		0.04	0.04	0.23	1.15	0.19	0.00	0.15	0.52	0.05	4.25
04	16.5	6.11		0.06	0.06	0.35	1.72	0.28	0.00	0.22	0.69	0.07	6.25
05	52	5.97		0.06	0.06	0.34	1.67	0.28	0.00	0.20	0.63	0.07	6.06
06	14.2	8.18		0.08	0.08	0.47	2.29	0.38	0.00	0.28	0.86	0.10	8.30
07	36.2	8.45		0.08	0.08	0.49	2.37	0.39	0.00	0.29	0.89	0.10	8.57
08	80.3	5.47		0.05	0.05	0.31	1.53	0.25	0.00	0.20	0.64	0.06	5.60
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: 2013

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	37.5	6.26		0.06	0.06	0.37	1.76	0.29	0.00	0.20	0.57	0.07	6.19
02				0.04	0.05	0.27	1.27	0.21	0.00	0.14	0.35	0.06	4.38
03				0.04	0.05	0.28	1.33	0.22	0.00	0.15	0.37	0.06	4.59
04				0.06	0.07	0.38	1.81	0.30	0.00	0.20	0.50	0.08	6.21
05				0.04	0.04	0.24	1.16	0.19	0.00	0.13	0.32	0.05	3.97
06	23.4	4.64		0.04	0.05	0.27	1.31	0.22	0.00	0.15	0.42	0.06	4.59
07				0.06	0.07	0.39	1.84	0.31	0.00	0.20	0.51	0.09	6.33
08				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: 2013

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	1.4	5.07		0.05	0.05	0.29	1.43	0.23	0.00	0.18	0.59	0.06	5.20
02	1.8	4.37		0.04	0.04	0.25	1.23	0.20	0.00	0.16	0.51	0.05	4.48
03	8.8	3.80		0.04	0.04	0.21	1.07	0.17	0.00	0.14	0.44	0.04	3.90
04				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
05	9	4.80		0.05	0.05	0.27	1.35	0.22	0.00	0.17	0.56	0.06	4.92
06	22	8.25		0.08	0.08	0.46	2.32	0.38	0.00	0.30	0.96	0.09	8.46
07	29.3	7.81		0.08	0.08	0.44	2.19	0.36	0.00	0.28	0.90	0.09	8.01

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL041

Calendar Year: 2013

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
1	29.3	4.97		0.06	0.05	0.22	1.41	0.28	0.00	0.20	0.65	0.06	4.88
2	38	6.51		0.06	0.06	0.31	1.82	0.27	0.00	0.24	0.90	0.07	6.61
3	19.4	6.62		0.08	0.07	0.29	1.87	0.38	0.00	0.27	0.87	0.08	6.49
4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	26.1	7.11		0.08	0.07	0.31	2.01	0.40	0.00	0.29	0.93	0.08	6.99
6				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: BL042

Calendar Year: 2013

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
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: BL043

Calendar Year: 2013

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
1	7.8	6.83		0.07	0.07	0.37	1.90	0.30	0.00	0.25	0.86	0.08	7.01

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL044

Calendar Year: 2013

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
1	23	6.58		0.06	0.06	0.36	1.83	0.29	0.00	0.24	0.83	0.07	6.75
2	24.2	8.35		0.08	0.08	0.46	2.32	0.37	0.00	0.30	1.05	0.09	8.57
3	30	7.59		0.07	0.07	0.42	2.11	0.34	0.00	0.28	0.95	0.08	7.79
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: BL047

Calendar Year: 2013

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
1	71.3	4.70		0.05	0.05	0.24	1.35	0.20	0.00	0.17	0.66	0.05	4.81
2	40.1	6.53		0.06	0.06	0.33	1.87	0.28	0.00	0.24	0.91	0.07	6.66

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL048

Calendar Year: 2013

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
1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6				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: BL049

Calendar Year: 2013

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	22.3	7.90		0.08	0.08	0.44	2.22	0.36	0.00	0.28	0.92	0.09	8.10

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: BL050

Calendar Year: 2013

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
1	8.4	6.57		0.06	0.06	0.37	1.85	0.30	0.00	0.24	0.76	0.08	6.74
2	18.3	6.56		0.06	0.06	0.37	1.84	0.30	0.00	0.23	0.76	0.08	6.72
3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	22.7	8.25		0.08	0.08	0.46	2.32	0.38	0.00	0.30	0.96	0.09	8.46
5	38.8	8.27		0.08	0.08	0.45	2.30	0.37	0.00	0.30	1.04	0.09	8.49
6				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: BL051

Calendar Year: 2013

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
1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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: BL052

Calendar Year: 2013

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
1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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: BL053

Calendar Year: 2013

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
1				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
15				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
17				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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: F28

Calendar Year: 2013

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: 2013

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
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: 2013

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: 2013

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
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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	0.55	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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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	0.46	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: 2013

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
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: 2013

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
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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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
03	59.9	7.38		0.14	0.11	0.70	3.18	0.60	0.01	0.47	1.42	0.12	10.92
04	58.4	7.18		0.20	0.16	1.21	4.95	0.68	0.01	0.66	2.25	0.17	16.60
05	49.4	6.29		0.18	0.13	0.95	4.10	0.65	0.01	0.52	1.75	0.15	13.40
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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	4.91		0.11	0.12	0.82	3.23	0.52	0.00	0.36	1.25	0.17	10.88
02	7.5	3.74		0.08	0.08	0.55	2.23	0.36	0.00	0.25	0.88	0.11	7.54
03	7.6	3.37		0.08	0.08	0.58	2.27	0.37	0.00	0.25	0.88	0.12	7.64
04	14.6	3.65		0.08	0.09	0.59	2.36	0.38	0.00	0.26	0.92	0.12	7.95
05	8.5	4.95		0.11	0.12	0.82	3.26	0.52	0.01	0.36	1.26	0.17	10.97
06	21.9	5.15		0.11	0.12	0.82	3.26	0.52	0.01	0.37	1.28	0.17	11.02
07	10.1	3.30		0.07	0.08	0.54	2.15	0.35	0.00	0.24	0.84	0.11	7.26
08	6.2	4.64		0.04	0.05	0.24	1.33	0.20	0.00	0.17	0.65	0.05	4.73
09	2.9	3.57		0.09	0.09	0.62	2.44	0.39	0.00	0.27	0.94	0.13	8.23
10	21.7	3.82		0.08	0.09	0.58	2.34	0.38	0.00	0.26	0.92	0.12	7.92
11				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: 2013

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	0.07	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				0.05	0.06	0.35	1.42	0.28	0.00	0.14	0.42	0.08	4.61
04				0.07	0.07	0.45	1.81	0.36	0.00	0.18	0.54	0.10	5.89
05				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: 2013

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				0.04	0.04	0.27	1.12	0.22	0.00	0.11	0.33	0.06	3.63
02				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: GY013

Calendar Year: 2013

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	47.8	6.02		0.07	0.06	0.32	1.68	0.38	0.00	0.24	0.68	0.07	5.98
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03	170.1	7.14		0.07	0.07	0.39	2.01	0.32	0.00	0.26	0.88	0.08	7.32
TH, FLECI				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: HA001

Calendar Year: 2013

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: 2013

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: 2013

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				0.12	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: 2013

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				0.09	0.09	0.64	2.31	0.30	0.00	0.26	0.73	0.18	7.42
03				0.08	0.08	0.60	2.19	0.28	0.00	0.25	0.70	0.17	7.03
04				0.11	0.11	0.76	2.92	0.41	0.00	0.32	0.90	0.21	9.49
05				0.09	0.09	0.64	2.55	0.36	0.00	0.29	0.78	0.18	8.29
06				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: 2013

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	0.11	0.88	3.23	0.41	0.00	0.34	1.03	0.18	10.34
02				0.12	0.11	0.89	3.27	0.42	0.00	0.35	1.04	0.19	10.47
03				0.09	0.08	0.63	2.34	0.30	0.00	0.25	0.74	0.13	7.49
04				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: 2013

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	0.69	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: 2013

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	0.68	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: 2013

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				0.15	0.17	1.22	5.14	0.81	0.01	0.68	1.61	0.20	16.55
02				0.13	0.12	0.76	3.19	0.56	0.01	0.44	1.13	0.19	10.38
03				0.14	0.12	0.77	3.12	0.54	0.00	0.37	1.08	0.20	9.96
09				0.09	0.10	0.65	2.77	0.52	0.01	0.32	0.81	0.11	8.83
10				0.12	0.12	0.74	3.15	0.66	0.01	0.47	1.13	0.13	10.78
11				0.07	0.08	0.35	1.86	0.42	0.00	0.23	0.58	0.09	6.19
12				0.10	0.12	0.78	3.43	0.64	0.02	0.45	1.03	0.15	11.02
13				0.14	0.15	1.04	4.23	0.62	0.02	0.59	1.49	0.21	13.72
14				0.10	0.11	0.90	3.33	0.54	0.02	0.49	1.18	0.14	11.19
15				0.10	0.11	0.85	3.14	0.47	0.01	0.42	1.01	0.19	10.32
16				0.10	0.12	0.88	3.27	0.50	0.01	0.43	1.05	0.20	10.74
19				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: 2013

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	6.44		0.13	0.13	0.68	3.58	0.71	0.01	0.43	1.31	0.17	12.10
03				0.07	0.08	0.59	2.17	0.26	0.00	0.23	0.65	0.15	6.89
04	5	4.35		0.11	0.12	0.76	3.21	0.51	0.00	0.38	1.13	0.20	10.51

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: HA019

Calendar Year: 2013

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	0.07	0.42	1.89	0.35	0.00	0.18	0.51	0.09	6.25
02				0.05	0.06	0.36	1.71	0.31	0.00	0.17	0.48	0.08	5.69
03				0.05	0.06	0.37	1.74	0.31	0.00	0.17	0.49	0.08	5.80
04				0.05	0.06	0.36	1.72	0.31	0.00	0.17	0.48	0.08	5.70
05				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: 2013

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	0.10	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: 2013

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				0.11	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: 2013

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	0.69	2.56	0.35	0.00	0.27	0.76	0.17	8.23
02				0.08	0.09	0.70	2.53	0.34	0.00	0.26	0.75	0.17	8.15
03				0.07	0.07	0.58	2.08	0.27	0.00	0.22	0.62	0.14	6.70
04				0.03	0.04	0.21	0.96	0.17	0.00	0.10	0.27	0.05	3.19
05				0.06	0.07	0.52	1.84	0.24	0.00	0.19	0.55	0.13	5.91
06				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: 2013

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: 2013

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	0.07	0.37	1.78	0.32	0.00	0.18	0.50	0.09	5.90
02				0.05	0.06	0.37	1.74	0.31	0.00	0.17	0.49	0.08	5.80
03				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: 2013

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	0.12	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: 2013

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: 2013

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	0.13	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: 2013

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	0.04	0.23	1.10	0.20	0.00	0.11	0.31	0.05	3.67
02				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: 2013

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	30.8	5.45		0.12	0.13	0.70	3.62	0.58	0.01	0.42	1.34	0.16	12.54
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: 2013

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	0.08	0.35	1.88	0.42	0.00	0.23	0.59	0.10	6.27
02				0.07	0.08	0.35	1.89	0.43	0.00	0.23	0.59	0.10	6.30
03				0.07	0.08	0.36	1.93	0.43	0.00	0.24	0.60	0.10	6.43
04				0.07	0.08	0.35	1.86	0.42	0.00	0.23	0.58	0.09	6.19
05				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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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	0.13	1.13	4.03	0.55	0.01	0.43	1.37	0.19	12.71
02				0.13	0.10	0.90	3.16	0.38	0.00	0.33	1.18	0.16	9.83
03				0.19	0.20	1.72	6.58	0.83	0.01	0.73	2.18	0.22	20.68
04				0.14	0.16	1.41	5.37	0.68	0.01	0.61	1.70	0.19	17.00
05				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: 2013

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: 2013

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: 2013

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	97.5	5.29		0.19	0.16	1.25	4.84	0.60	0.01	0.55	1.97	0.26	15.66
02	47	5.20		0.19	0.16	1.21	4.69	0.60	0.01	0.53	1.91	0.25	15.17
03	22.9	3.62		0.09	0.09	0.62	2.41	0.34	0.00	0.29	0.96	0.17	8.04
04	29.5	3.47		0.09	0.08	0.60	2.33	0.33	0.00	0.28	0.93	0.16	7.78
05	18	3.14		0.09	0.08	0.57	2.20	0.31	0.00	0.26	0.87	0.15	7.30
06	20.9	4.78		0.12	0.12	0.89	3.38	0.47	0.00	0.38	1.30	0.22	11.33
07	90.2	3.31		0.09	0.08	0.62	2.37	0.34	0.00	0.27	0.91	0.15	8.01
08				0.20	0.12	0.94	3.83	0.48	0.01	0.48	1.90	0.14	11.54
09	16	3.47		0.09	0.09	0.60	2.38	0.37	0.00	0.27	0.92	0.15	8.20
10	24	3.51		0.09	0.09	0.62	2.44	0.36	0.00	0.28	0.94	0.14	8.27
11	29.5	5.10		0.15	0.13	0.98	3.86	0.54	0.00	0.44	1.59	0.20	12.79
12	54.1	4.89		0.25	0.19	1.61	6.07	0.81	0.00	0.70	2.63	0.26	19.58
13	14.6	4.45		0.12	0.12	0.85	3.29	0.48	0.00	0.37	1.25	0.19	11.03
14	19.4	3.67		0.09	0.09	0.64	2.50	0.37	0.00	0.28	0.97	0.15	8.43
15	27.4	3.31		0.09	0.09	0.62	2.41	0.35	0.00	0.27	0.92	0.14	8.08
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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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	12.4	6.90		0.16	0.14	0.90	3.90	0.66	0.01	0.49	1.52	0.27	12.82
02	9.5	6.63		0.16	0.14	0.90	3.84	0.67	0.01	0.48	1.50	0.27	12.76
03	13.3	6.94		0.14	0.13	0.75	3.40	0.64	0.01	0.44	1.37	0.23	11.48

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR022

Calendar Year: 2013

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: 2013

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: 2013

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: 2013

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: 2013

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	21.3	3.38		0.08	0.08	0.59	2.31	0.34	0.00	0.26	0.89	0.13	7.78

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MR029

Calendar Year: 2013

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	77.5	1.48		0.02	0.02	0.07	0.42	0.09	0.00	0.06	0.19	0.02	1.46

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MS001

Calendar Year: 2013

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	5.32		0.14	0.14	0.93	3.77	0.51	0.01	0.45	1.48	0.27	12.59
02	18.9	4.09		0.16	0.16	1.17	4.34	0.61	0.01	0.50	1.61	0.30	14.27
03	13	4.60		0.16	0.15	1.02	4.14	0.62	0.01	0.48	1.54	0.27	13.75
04	37.5	4.62		0.17	0.16	1.10	4.46	0.66	0.01	0.52	1.64	0.30	14.77
05	11.7	4.07		0.17	0.16	1.08	4.33	0.64	0.01	0.50	1.57	0.29	14.28
06	3	5.09		0.15	0.15	1.06	4.04	0.59	0.01	0.46	1.55	0.27	13.53

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: MS002

Calendar Year: 2013

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: 2013

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: 2013

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	0.69	2.50	0.35	0.00	0.27	0.78	0.19	7.97
02				0.04	0.05	0.31	1.40	0.26	0.00	0.13	0.38	0.07	4.60
03				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				0.13	0.13	0.97	3.48	0.48	0.00	0.38	1.08	0.26	11.09
06				0.09	0.09	0.65	2.34	0.32	0.00	0.25	0.73	0.18	7.46
07				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: 2013

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	0.21	1.07	0.25	0.00	0.12	0.31	0.06	3.44
02				0.04	0.04	0.24	1.13	0.24	0.00	0.12	0.32	0.06	3.66
03				0.04	0.05	0.26	1.19	0.24	0.00	0.12	0.34	0.06	3.88
04				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				0.06	0.06	0.36	1.64	0.34	0.00	0.16	0.46	0.09	5.34
09				0.06	0.06	0.34	1.62	0.35	0.00	0.17	0.46	0.09	5.25
10				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: RH006

Calendar Year: 2013

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	6.62		0.06	0.06	0.32	1.83	0.28	0.00	0.24	0.91	0.08	6.66
02	12.9	6.73		0.06	0.06	0.32	1.86	0.28	0.00	0.25	0.93	0.08	6.78
03	15.7	5.77		0.05	0.06	0.28	1.59	0.24	0.00	0.21	0.80	0.07	5.82
04	16.2	6.52		0.06	0.06	0.31	1.80	0.27	0.00	0.24	0.90	0.07	6.56
05	15.8	4.92		0.05	0.05	0.24	1.36	0.20	0.00	0.18	0.68	0.06	4.96

Cumulative Pollutant Loading Rate Summary Worksheet

The average of 52 analyses is used for metals calculations.

Farm Name: RH009

Calendar Year: 2013

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	6.7	6.59		0.06	0.06	0.32	1.82	0.27	0.00	0.24	0.91	0.08	6.64
02				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
03	17.8	7.48		0.07	0.07	0.36	2.06	0.31	0.00	0.27	1.03	0.09	7.53

APPENDIX C
503 INORGANIC ANALYSIS
FOR
2013 LAND APPLICATION

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

Biosolids Characteristics

Source: Filter Press **1/7/2013** through **12/30/2013**

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	12131074-001 12/30/2013 12/30/2013 FILTER PRESS CAKE 503	12130866-001 12/23/2013 12/23/2013 FILTER PRESS CAKE 503	12130594-001 12/16/2013 12/16/2013 FILTER PRESS CAKE 503
pH	11.87	11	12.4	11.7	11.9	12
Solids (%)	58.93%	46.20%	72.20%	55.90%	52.50%	56.30%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.79%	2.93%	4.67%	2.93%	3.62%	4.35%
Organic N	3.67%	2.87%	4.61%	2.87%	3.55%	4.26%
Ammonia N	0.12%	0.04%	0.25%	0.06%	0.07%	0.09%
Total Phosphorus (P)	8.75%	5.04%	13.00%	9.46%	8.91%	8.97%
Potassium (K)	0.10%	0.07%	0.15%	0.09%	0.10%	0.11%
Other Nutr. (% dw)						
Calcium (Ca)	9.56%	7.32%	11.17%	9.62%	10.86%	10.30%
Iron (Fe)	3.24%	2.65%	3.78%	3.07%	3.52%	2.96%
Boron (B)	0.01%	0.00%	0.03%			
Sulfur (S)	0.41%	0.10%	0.57%			
Reg'd Metals (mg/kg)						
Manganese (Mn)	281.69	170.22	341.00	224.69	244.57	213.85
Arsenic (As)	2.01	1.07	2.82	1.43	1.52	1.07
Cadmium (Cd)	4.03	2.99	4.91	3.58	4.57	3.91
Chromium (Cr)	27.19	18.82	42.80	25.04	23.62	21.67
Copper (Cu)	116.06	85.15	174.02	85.15	97.52	89.17
Lead (Pb)	3.38	1.01	10.10	2.15	1.14	1.07
Mercury (Hg)	0.17	0.07	0.34	0.11	0.15	0.18
Molybdenum (Mo)	10.09	6.80	17.83	6.80	9.52	8.53
Nickel (Ni)	44.51	15.51	332.90	20.04	28.19	25.22
Selenium (Se)	5.18	1.63	10.10	6.08	6.10	3.91
Zinc (Zn)	540.67	340.25	912.48	340.25	360.38	358.79
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/7/2013** through **12/30/2013**

Sample ID	12130316-001	12130059-001	11130855-001	11130602-001	11130338-001	11130113-001
Report Date	12/9/2013	12/2/2013	11/25/2013	11/18/2013	11/11/2013	11/4/2013
Date Sampled	12/9/2013	12/2/2013	11/25/2013	11/18/2013	11/11/2013	11/4/2013
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	12	11.9	11.8	11.7	12
Solids (%)	57.00%	57.40%	65.30%	58.80%	66.80%	62.30%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.99%	4.36%	4.61%	4.17%	4.18%	4.63%
Organic N	3.92%	4.31%	4.54%	4.09%	4.12%	4.57%
Ammonia N	0.07%	0.05%	0.07%	0.08%	0.06%	0.06%
Total Phosphorus (P)	10.50%	10.10%	10.30%	8.75%	6.34%	9.19%
Potassium (K)	0.10%	0.10%	0.09%	0.09%	0.09%	0.09%
Other Nutr. (% dw)						
Calcium (Ca)	10.32%	10.10%	9.28%	9.66%	9.55%	10.08%
Iron (Fe)	3.09%	3.08%	2.80%	3.04%	3.17%	3.34%
Boron (B)	0.03%				0.01%	
Sulfur (S)	0.50%				0.37%	
Reg'd Metals (mg/kg)						
Manganese (Mn)	247.72	251.92	223.28	243.88	228.74	267.09
Arsenic (As)	1.75	1.74	1.53	1.70	1.20	1.28
Cadmium (Cd)	4.91	4.88	4.29	4.08	2.99	3.53
Chromium (Cr)	25.26	18.82	19.30	21.09	24.55	21.83
Copper (Cu)	105.26	103.83	92.80	98.30	111.38	102.41
Lead (Pb)	3.16	2.09	2.14	3.74	2.69	2.57
Mercury (Hg)	0.11	0.10	0.12	0.14	0.09	0.16
Molybdenum (Mo)	10.53	11.15	9.19	10.54	9.28	10.59
Nickel (Ni)	28.42	21.60	25.73	26.87	25.75	24.08
Selenium (Se)	4.21	5.23	4.59	4.76	3.29	3.53
Zinc (Zn)	431.58	421.60	499.23	455.78	526.95	696.63
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/7/2013** through **12/30/2013**

Sample ID	10130934-001	10130686-001	10130216-001	09130981-001	09130727-001	09130517-001
Report Date	10/28/2013	10/21/2013	10/7/2013	9/30/2013	9/23/2013	9/16/2013
Date Sampled	10/28/2013	10/21/2013	10/7/2013	9/30/2013	9/23/2013	9/16/2013
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	11.9	12.1	12	12.1	11.6
Solids (%)	65.00%	52.10%	64.60%	61.20%	64.70%	66.00%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	4.67%	3.94%	3.54%	3.52%	3.96%	3.26%
Organic N	4.61%	3.88%	3.49%	3.48%	3.90%	3.22%
Ammonia N	0.07%	0.06%	0.05%	0.05%	0.05%	0.04%
Total Phosphorus (P)	9.28%	10.10%	9.14%	9.35%	13.00%	9.76%
Potassium (K)	0.07%	0.08%	0.09%	0.08%	0.10%	0.08%
Other Nutr. (% dw)						
Calcium (Ca)	8.25%	10.90%	9.13%	9.41%	9.40%	9.48%
Iron (Fe)	3.02%	3.42%	3.50%	3.25%	3.28%	3.36%
Boron (B)						
Sulfur (S)						
Reg'd Metals (mg/kg)						
Manganese (Mn)	279.38	320.92	269.35	278.76	288.72	309.09
Arsenic (As)	1.23	2.69	2.17	2.29	2.78	2.73
Cadmium (Cd)	3.69	4.22	4.02	3.59	4.64	4.24
Chromium (Cr)	21.23	24.18	30.34	25.82	33.38	30.30
Copper (Cu)	109.23	128.98	123.22	113.73	122.10	125.45
Lead (Pb)	3.69	6.14	5.26	5.56	8.96	5.15
Mercury (Hg)	0.18	0.19	0.15	0.13	0.19	0.33
Molybdenum (Mo)	11.38	13.82	9.60	10.13	9.58	10.61
Nickel (Ni)	22.77	28.02	29.41	22.88	26.28	27.27
Selenium (Se)	2.46	3.07	1.86	1.63	2.16	2.42
Zinc (Zn)	532.31	825.34	761.61	637.25	701.70	645.45
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/7/2013** through **12/30/2013**

Sample ID	09130258-001	09130079-001	08130860-001	08130647-001	08130436-001	08130165-001
Report Date	9/9/2013	9/3/2013	8/26/2013	8/19/2013	8/12/2013	8/5/2013
Date Sampled	9/9/2013	9/3/2013	8/26/2013	8/19/2013	8/12/2013	8/5/2013
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	11.6	12	11.8	11.7	12.1	12.1
Solids (%)	60.10%	53.70%	56.70%	60.80%	72.20%	62.20%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.25%	3.27%	4.02%	3.69%	3.76%	3.75%
Organic N	3.20%	3.16%	3.83%	3.64%	3.65%	3.55%
Ammonia N	0.05%	0.10%	0.19%	0.05%	0.12%	0.20%
Total Phosphorus (P)	8.80%	9.93%	9.38%	8.34%	9.62%	8.97%
Potassium (K)	0.09%	0.11%	0.09%	0.10%	0.09%	0.11%
Other Nutr. (% dw)						
Calcium (Ca)	10.25%	11.17%	10.23%	9.80%	8.31%	9.71%
Iron (Fe)	3.73%	3.58%	3.70%	3.19%	3.10%	3.34%
Boron (B)	0.02%				0.01%	
Sulfur (S)	0.57%				0.54%	
Reg'd Metals (mg/kg)						
Manganese (Mn)	324.46	335.94	330.51	304.93	229.09	266.24
Arsenic (As)	2.33	2.61	2.47	2.30	1.94	2.57
Cadmium (Cd)	3.99	4.47	4.23	3.95	3.60	3.54
Chromium (Cr)	26.29	31.66	29.28	31.58	30.75	30.23
Copper (Cu)	110.15	125.51	129.81	123.68	117.45	117.36
Lead (Pb)	4.33	8.19	4.23	2.63	3.05	4.82
Mercury (Hg)	0.20	0.26	0.14	0.20	0.17	0.29
Molybdenum (Mo)	8.99	11.55	8.82	8.22	6.93	7.40
Nickel (Ni)	28.29	36.50	29.98	29.61	23.55	26.05
Selenium (Se)	3.99	4.84	2.82	2.30	1.94	2.57
Zinc (Zn)	831.95	912.48	550.26	532.89	487.53	501.61
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/7/2013** through **12/30/2013**

Sample ID	07131069-001	07130821-001	07130557-001	07130309-001	07130036-001	06130850-001
Report Date	7/29/2013	7/22/2013	7/15/2013	7/8/2013	7/1/2013	6/24/2013
Date Sampled	7/29/2013	7/22/2013	7/15/2013	7/8/2013	7/1/2013	6/24/2013
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	12.2	11.8	12	12	12.2	12.2
Solids (%)	58.90%	59.10%	56.00%	59.40%	61.90%	59.90%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.29%	3.61%	3.40%	3.45%	3.48%	3.44%
Organic N	3.08%	3.47%	3.24%	3.42%	3.25%	3.39%
Ammonia N	0.21%	0.14%	0.16%	0.04%	0.23%	0.05%
Total Phosphorus (P)	7.06%	5.04%	7.67%	7.03%	8.90%	8.88%
Potassium (K)	0.11%	0.09%	0.09%	0.09%	0.10%	0.11%
Other Nutr. (% dw)						
Calcium (Ca)	10.59%	10.49%	11.07%	10.57%	10.31%	10.65%
Iron (Fe)	3.29%	3.05%	3.20%	2.86%	3.49%	3.08%
Boron (B)		0.00%				
Sulfur (S)		0.26%				
Reg'd Metals (mg/kg)						
Manganese (Mn)	177.59	170.22	309.29	253.87	307.92	323.21
Arsenic (As)	2.38	2.37	2.14	2.02	1.29	2.00
Cadmium (Cd)	4.41	4.06	4.29	4.38	4.52	4.01
Chromium (Cr)	32.94	28.76	31.43	26.94	23.91	35.39
Copper (Cu)	122.92	122.17	107.14	93.60	92.73	114.19
Lead (Pb)	1.70	2.37	2.14	10.10	9.69	1.67
Mercury (Hg)	0.17	0.10	0.18	0.13	0.16	0.20
Molybdenum (Mo)	8.49	9.81	11.79	9.76	8.08	7.35
Nickel (Ni)	26.83	23.69	24.29	29.97	15.51	28.05
Selenium (Se)	2.38	2.37	2.86	5.05	6.14	6.34
Zinc (Zn)	543.29	527.92	514.29	619.53	630.05	474.12
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/7/2013** through **12/30/2013**

Sample ID	06130601-001	06130343-001	06130081-001	05131020-001	05130742-001	05130472-001
Report Date	6/17/2013	6/10/2013	6/3/2013	5/28/2013	5/20/2013	5/13/2013
Date Sampled	6/17/2013	6/10/2013	6/3/2013	5/28/2013	5/20/2013	5/13/2013
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	12.2	12.2	12.4	12.1	12.1	12.1
Solids (%)	55.80%	59.60%	61.00%	56.10%	59.60%	54.20%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.78%	3.81%	3.35%	3.54%	3.51%	3.63%
Organic N	3.57%	3.58%	3.17%	3.49%	3.34%	3.44%
Ammonia N	0.21%	0.23%	0.18%	0.05%	0.18%	0.19%
Total Phosphorus (P)	8.83%	9.47%	8.01%	8.91%	9.38%	9.63%
Potassium (K)	0.13%	0.13%	0.12%	0.11%	0.11%	0.11%
Other Nutr. (% dw)						
Calcium (Ca)	11.04%	10.84%	10.30%	10.62%	10.34%	10.89%
Iron (Fe)	3.69%	3.42%	3.38%	3.37%	3.10%	3.39%
Boron (B)		0.00%				0.00%
Sulfur (S)		0.10%				0.53%
Reg'd Metals (mg/kg)						
Manganese (Mn)	311.83	302.68	310.82	286.63	263.09	265.68
Arsenic (As)	2.15	2.35	2.30	1.78	2.01	1.85
Cadmium (Cd)	3.58	4.70	4.26	4.28	3.69	3.69
Chromium (Cr)	29.75	33.89	29.18	32.80	32.55	42.80
Copper (Cu)	114.34	119.46	127.21	122.99	129.53	123.62
Lead (Pb)	1.79	1.01	1.97	1.78	1.68	2.58
Mercury (Hg)	0.14	0.07	0.10	0.11	0.20	0.33
Molybdenum (Mo)	7.89	7.72	8.20	17.83	11.41	12.18
Nickel (Ni)	26.88	30.87	26.89	29.95	35.91	28.78
Selenium (Se)	6.81	7.05	8.52	4.63	5.70	7.38
Zinc (Zn)	548.39	567.11	580.33	563.28	553.69	564.58
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/7/2013** through **12/30/2013**

Sample ID	05130200-001	04131100-001	04130875-001	04130592-001	04130317-001	04130036-001
Report Date	5/6/2013	4/29/2013	4/22/2013	4/15/2013	4/8/2013	4/1/2013
Date Sampled	5/6/2013	4/29/2013	4/22/2013	4/15/2013	4/8/2013	4/1/2013
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	11.5	11.9	11.8	11.7
Solids (%)	64.00%	68.30%	58.60%	57.80%	53.50%	59.40%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.71%	3.57%	3.94%	3.93%	4.33%	3.63%
Organic N	3.55%	3.37%	3.69%	3.84%	4.08%	3.52%
Ammonia N	0.16%	0.20%	0.25%	0.09%	0.25%	0.12%
Total Phosphorus (P)	8.88%	11.20%	8.14%	8.95%	8.81%	8.14%
Potassium (K)	0.11%	0.11%	0.11%	0.11%	0.12%	0.10%
Other Nutr. (% dw)						
Calcium (Ca)	10.34%	7.50%	8.67%	8.65%	8.97%	8.38%
Iron (Fe)	3.41%	2.65%	3.26%	3.18%	3.21%	2.89%
Boron (B)		0.00%				
Sulfur (S)		0.51%				
Reg'd Metals (mg/kg)						
Manganese (Mn)	231.25	259.44	270.65	279.24	269.53	325.93
Arsenic (As)	1.56	1.46	1.71	1.38	1.87	2.36
Cadmium (Cd)	3.44	3.81	3.07	3.46	3.74	3.70
Chromium (Cr)	31.25	28.99	19.80	25.26	24.30	27.61
Copper (Cu)	103.44	110.10	99.66	104.50	100.19	114.81
Lead (Pb)	1.88	1.46	2.39	2.08	2.24	4.38
Mercury (Hg)	0.13	0.20	0.24	0.17	0.26	0.17
Molybdenum (Mo)	11.25	9.08	8.19	11.07	10.84	11.45
Nickel (Ni)	26.56	28.40	23.89	26.30	30.65	27.95
Selenium (Se)	5.00	5.27	4.78	5.54	6.36	10.10
Zinc (Zn)	431.25	491.95	409.56	442.91	530.84	545.45
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/7/2013** through **12/30/2013**

Sample ID	03130863-001	03130641-001	03130388-001	03130123-001	02130859-001	02130615-001
Report Date	3/25/2013	3/18/2013	3/11/2013	3/4/2013	2/25/2013	2/18/2013
Date Sampled	3/25/2013	3/18/2013	3/11/2013	3/4/2013	2/25/2013	2/18/2013
Lab ID	FILTER PRESS CAKE 503				FILTER PRESS CAKE 503	FILTER PRESS CAKE 503
Date Received						
County						
pH	12.4	11.8	11.7	12.2	11.8	12
Solids (%)	56.70%	52.20%	59.30%	57.60%	57.20%	52.70%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.62%	4.12%	3.93%	3.76%	4.10%	3.88%
Organic N	3.55%	4.00%	3.87%	3.58%	3.87%	3.72%
Ammonia N	0.08%	0.12%	0.06%	0.18%	0.22%	0.17%
Total Phosphorus (P)	7.08%	8.35%	8.69%	8.54%	8.28%	8.00%
Potassium (K)	0.13%	0.14%	0.13%	0.10%	0.12%	0.15%
Other Nutr. (% dw)						
Calcium (Ca)	8.22%	8.58%	7.32%	8.09%	8.11%	8.73%
Iron (Fe)	3.30%	3.52%	2.72%	3.28%	3.02%	3.78%
Boron (B)	0.00%					
Sulfur (S)	0.29%					
Reg'd Metals (mg/kg)						
Manganese (Mn)	277.95	298.08	293.42	323.61	284.27	327.89
Arsenic (As)	2.82	2.68	1.69	2.08	1.75	1.90
Cadmium (Cd)	4.23	4.21	3.71	3.82	3.85	3.80
Chromium (Cr)	22.93	26.05	21.25	26.39	23.43	26.94
Copper (Cu)	98.41	99.23	133.90	168.06	98.95	102.85
Lead (Pb)	1.41	3.45	2.36	2.08	3.50	3.80
Mercury (Hg)	0.14	0.11	0.13	0.07	0.21	0.34
Molybdenum (Mo)	11.99	11.11	9.78	11.11	6.99	7.21
Nickel (Ni)	30.34	25.67	34.06	29.86	27.97	29.60
Selenium (Se)	6.70	9.20	7.76	6.94	5.94	9.87
Zinc (Zn)	455.03	440.61	418.21	465.28	472.03	557.87
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Filter Press **1/7/2013** through **12/30/2013**

Sample ID	02130374-001	02130127-001	01130928-001	01130713-001	01130446-001	01130220-001
Report Date	2/11/2013	2/4/2013	1/28/2013	1/22/2013	1/14/2013	1/7/2013
Date Sampled	2/11/2013	2/4/2013	1/28/2013	1/22/2013	1/14/2013	1/7/2013
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	12.1	12	12.3	11.8	12.2	12.3
Solids (%)	53.30%	58.10%	53.90%	46.20%	56.20%	67.10%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.81%	3.79%	3.76%	3.96%	3.91%	3.81%
Organic N	3.64%	3.73%	3.71%	3.91%	3.77%	3.68%
Ammonia N	0.17%	0.05%	0.05%	0.05%	0.14%	0.13%
Total Phosphorus (P)	8.41%	7.55%	6.60%	9.11%	8.13%	6.60%
Potassium (K)	0.12%	0.12%	0.12%			
Other Nutr. (% dw)						
Calcium (Ca)	8.03%	7.64%	8.01%			
Iron (Fe)	3.29%	3.04%	3.55%	3.52%	2.85%	3.13%
Boron (B)						
Sulfur (S)						
Reg'd Metals (mg/kg)						
Manganese (Mn)	311.44	314.97	341.00	337.66	329.18	324.89
Arsenic (As)	1.88	2.07	2.23	2.60	2.49	2.09
Cadmium (Cd)	4.50	4.48	4.45	3.46	4.63	4.17
Chromium (Cr)	28.52	26.51	24.49	22.08	27.05	27.42
Copper (Cu)	147.47	134.94	151.76	142.42	174.02	112.07
Lead (Pb)	2.63	3.44	3.34	3.03	4.63	2.98
Mercury (Hg)	0.26	0.21	0.07	0.09	0.11	0.15
Molybdenum (Mo)	10.13	10.33	11.87	15.15	11.39	11.92
Nickel (Ni)	32.27	276.76	174.77	332.90	191.46	36.36
Selenium (Se)	9.38	7.57	6.68	7.36	6.05	4.47
Zinc (Zn)	514.07	502.58	474.95	532.47	597.86	593.14
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/7/2013** through **12/30/2013**

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	12131072-001 12/30/2013 12/30/2013 CENTRIFUGE CAKE 503	12130864-001 12/23/2013 12/23/2013 CENTRIFUGE CAKE 503	12130593-001 12/16/2013 12/16/2013 CENTRIFUGE CAKE 503
pH	12.13	11.5	12.7	11.5	12.1	12
Solids (%)	35.54%	28.90%	42.90%	36.70%	34.90%	29.10%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.65%	2.49%	5.12%	3.79%	3.96%	4.98%
Organic N	3.38%	2.13%	4.97%	3.63%	3.77%	4.72%
Ammonia N	0.27%	0.09%	0.63%	0.16%	0.19%	0.26%
Total Phosphorus (P)	7.59%	4.25%	14.60%	8.52%	7.94%	9.11%
Potassium (K)	0.28%	0.20%	0.38%	0.26%	0.35%	0.38%
Other Nutr. (% dw)						
Calcium (Ca)	13.71%	9.51%	17.56%	10.46%	14.56%	16.22%
Iron (Fe)	0.76%	0.50%	1.65%	0.54%	0.61%	0.60%
Boron (B)	0.01%	0.00%	0.08%			
Sulfur (S)	0.72%	0.03%	1.44%			
Reg'd Metals (mg/kg)						
Manganese (Mn)	200.22	92.64	315.32	92.64	125.50	150.52
Arsenic (As)	5.20	2.23	10.00	2.72	5.16	4.12
Cadmium (Cd)	5.27	3.81	7.29	3.81	5.16	5.50
Chromium (Cr)	19.24	11.89	44.72	17.44	17.19	14.43
Copper (Cu)	135.32	87.19	419.71	87.19	108.88	135.40
Lead (Pb)	33.23	15.91	71.43	23.98	32.66	33.68
Mercury (Hg)	0.24	0.11	0.56	0.22	0.11	0.14
Molybdenum (Mo)	17.36	9.13	25.62	10.35	16.05	16.49
Nickel (Ni)	47.84	19.07	341.57	19.07	33.24	28.87
Selenium (Se)	6.72	2.34	12.08	7.08	5.73	5.50
Zinc (Zn)	522.75	323.71	1180.12	323.71	357.02	512.03
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/7/2013** through **12/30/2013**

Sample ID	12130313-001	12130056-001	11130853-001	11130600-001	11130335-001	11130110-001
Report Date	12/9/2013	12/2/2013	11/25/2013	11/18/2013	11/11/2013	11/4/2013
Date Sampled	12/9/2013	12/2/2013	11/25/2013	11/18/2013	11/11/2013	11/4/2013
Lab ID	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503
Date Received						
County						
pH	12.2	12.1	12.1	12	12.1	12.1
Solids (%)	28.90%	31.50%	35.70%	37.80%	35.20%	32.90%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	4.17%	4.42%	4.10%	3.86%	3.58%	4.08%
Organic N	3.92%	4.18%	3.96%	3.69%	3.41%	3.84%
Ammonia N	0.25%	0.24%	0.14%	0.17%	0.17%	0.23%
Total Phosphorus (P)	10.20%	8.80%	7.88%	4.25%	5.28%	7.73%
Potassium (K)	0.33%	0.37%	0.30%	0.35%	0.37%	0.32%
Other Nutr. (% dw)						
Calcium (Ca)	14.74%	14.54%	12.44%	12.96%	13.24%	15.02%
Iron (Fe)	0.79%	0.62%	0.56%	0.72%	0.93%	0.86%
Boron (B)	0.08%				0.00%	
Sulfur (S)	0.09%				1.44%	
Reg'd Metals (mg/kg)						
Manganese (Mn)	170.24	137.78	104.20	155.56	137.50	186.02
Arsenic (As)	3.46	4.44	5.04	4.76	4.55	6.08
Cadmium (Cd)	6.92	6.35	5.60	4.23	4.55	4.26
Chromium (Cr)	21.45	18.41	13.45	15.34	14.77	15.81
Copper (Cu)	149.48	119.37	93.56	118.52	110.80	146.50
Lead (Pb)	37.37	26.03	16.81	21.16	15.91	16.41
Mercury (Hg)	0.21	0.13	0.11	0.16	0.11	0.12
Molybdenum (Mo)	24.22	17.78	15.13	16.40	18.75	20.67
Nickel (Ni)	38.06	31.11	35.85	33.86	33.52	36.47
Selenium (Se)	11.76	7.62	8.96	8.47	4.55	4.26
Zinc (Zn)	606.23	490.16	449.86	423.28	478.98	765.96
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/7/2013** through **12/30/2013**

Sample ID	10130932-001	10130684-001	10130423-001	10130213-001	09130979-001	09130725-001
Report Date	10/28/2013	10/21/2013	10/14/2013	10/7/2013	9/30/2013	9/23/2013
Date Sampled	10/28/2013	10/21/2013	10/14/2013	10/7/2013	9/30/2013	9/23/2013
Lab ID	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503
Date Received						
County						
pH	12.2	11.5	12.2	12.3	12.3	12.2
Solids (%)	34.10%	36.20%	42.40%	33.10%	34.20%	32.20%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	4.57%	2.84%	3.46%	3.55%	4.56%	3.11%
Organic N	4.37%	2.71%	3.37%	3.36%	4.34%	2.96%
Ammonia N	0.20%	0.13%	0.09%	0.20%	0.22%	0.15%
Total Phosphorus (P)	7.41%	6.15%	4.28%	8.74%	6.65%	10.10%
Potassium (K)	0.24%	0.24%	0.23%	0.23%	0.23%	0.28%
Other Nutr. (% dw)						
Calcium (Ca)	12.32%	15.25%	11.79%	14.26%	13.16%	16.34%
Iron (Fe)	0.52%	0.73%	0.57%	1.65%	0.84%	0.69%
Boron (B)			0.00%			
Sulfur (S)			1.08%			
Reg'd Metals (mg/kg)						
Manganese (Mn)	151.32	180.11	197.64	273.72	167.84	167.70
Arsenic (As)	4.11	5.52	5.66	5.44	4.09	8.70
Cadmium (Cd)	4.69	6.63	4.72	6.04	4.09	6.83
Chromium (Cr)	14.66	14.92	14.62	34.44	20.47	44.72
Copper (Cu)	137.83	93.37	116.51	148.04	122.81	132.92
Lead (Pb)	25.81	25.97	28.30	27.19	31.58	71.43
Mercury (Hg)	0.29	0.17	0.19	0.42	0.18	0.19
Molybdenum (Mo)	20.53	19.34	16.98	16.31	16.37	20.50
Nickel (Ni)	30.50	37.57	32.08	42.30	29.82	47.83
Selenium (Se)	5.87	3.87	2.83	3.63	2.34	2.48
Zinc (Zn)	604.11	415.47	551.89	803.63	783.63	1180.12
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/7/2013** through **12/30/2013**

Sample ID	09130515-001	09130255-001	09130077-001	08130858-001	08130645-001	08130434-001
Report Date	9/16/2013	9/9/2013	9/3/2013	8/26/2013	8/19/2013	8/12/2013
Date Sampled	9/16/2013	9/9/2013	9/3/2013	8/26/2013	8/19/2013	8/12/2013
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	12.1	12	12.1	12.3
Solids (%)	38.40%	34.10%	40.00%	38.00%	36.50%	35.90%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	2.92%	3.74%	3.20%	3.12%	3.76%	3.86%
Organic N	2.82%	3.59%	3.05%	2.63%	3.60%	3.46%
Ammonia N	0.10%	0.15%	0.15%	0.50%	0.16%	0.40%
Total Phosphorus (P)	14.60%	9.86%	7.15%	6.81%	8.00%	6.06%
Potassium (K)	0.32%	0.26%	0.25%	0.21%	0.23%	0.26%
Other Nutr. (% dw)						
Calcium (Ca)	15.68%	14.37%	13.85%	13.68%	14.08%	14.60%
Iron (Fe)	0.71%	1.23%	0.78%	0.88%	0.83%	0.92%
Boron (B)		0.02%				0.00%
Sulfur (S)		0.97%				1.01%
Reg'd Metals (mg/kg)						
Manganese (Mn)	176.56	225.22	187.00	209.47	196.71	150.42
Arsenic (As)	7.29	5.87	6.50	10.00	4.38	4.46
Cadmium (Cd)	7.29	4.69	5.00	5.79	5.48	5.57
Chromium (Cr)	26.04	17.01	17.00	25.79	23.01	20.06
Copper (Cu)	113.54	140.18	118.00	150.00	128.22	137.05
Lead (Pb)	33.85	48.09	51.00	60.53	54.79	42.34
Mercury (Hg)	0.26	0.35	0.30	0.16	0.27	0.56
Molybdenum (Mo)	18.23	18.77	18.00	16.32	18.08	15.60
Nickel (Ni)	43.75	37.54	41.00	42.11	38.90	33.98
Selenium (Se)	3.13	6.45	5.50	4.21	3.29	3.90
Zinc (Zn)	833.33	604.11	505.00	631.58	591.78	568.25
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/7/2013** through **12/30/2013**

Sample ID	08130162-001	07131067-001	07130819-001	07130555-001	07130306-001	07130033-001
Report Date	8/5/2013	7/29/2013	7/22/2013	7/15/2013	7/8/2013	7/1/2013
Date Sampled	8/5/2013	7/29/2013	7/22/2013	7/15/2013	7/8/2013	7/1/2013
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	12.2	12.3	12.2	12.2
Solids (%)	34.90%	33.30%	42.50%	35.90%	38.10%	35.90%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	4.21%	4.26%	2.54%	3.81%	3.03%	3.06%
Organic N	3.87%	3.67%	2.37%	3.54%	2.92%	2.68%
Ammonia N	0.34%	0.59%	0.16%	0.28%	0.11%	0.37%
Total Phosphorus (P)	8.40%	6.64%	5.49%	7.75%	6.13%	7.68%
Potassium (K)	0.26%	0.29%	0.27%	0.21%	0.25%	0.35%
Other Nutr. (% dw)						
Calcium (Ca)	15.19%	13.39%	14.49%	14.21%	15.07%	16.04%
Iron (Fe)	0.79%	0.88%	0.58%	0.69%	0.56%	1.01%
Boron (B)			0.00%			
Sulfur (S)			0.21%			
Reg'd Metals (mg/kg)						
Manganese (Mn)	161.03	315.32	244.71	235.65	126.51	210.03
Arsenic (As)	4.01	3.60	4.71	2.23	5.77	9.47
Cadmium (Cd)	5.16	5.41	5.18	5.01	5.77	6.13
Chromium (Cr)	21.20	25.83	28.71	21.73	15.22	19.50
Copper (Cu)	134.67	136.94	132.71	130.36	101.31	162.12
Lead (Pb)	36.68	30.63	39.53	37.88	38.85	27.86
Mercury (Hg)	0.40	0.24	0.33	0.33	0.16	0.22
Molybdenum (Mo)	14.33	15.02	16.47	17.27	16.80	23.96
Nickel (Ni)	33.81	33.03	39.06	30.08	40.94	39.00
Selenium (Se)	4.01	3.60	3.29	3.90	6.30	11.70
Zinc (Zn)	531.81	533.93	464.47	484.68	375.85	488.02
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/7/2013** through **12/30/2013**

Sample ID	06130848-001	06130599-001	06130340-001	06130078-001	05131019-001	05130741-001
Report Date	6/24/2013	6/17/2013	6/10/2013	6/3/2013	5/28/2013	5/20/2013
Date Sampled	6/24/2013	6/17/2013	6/10/2013	6/3/2013	5/28/2013	5/20/2013
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	12.5	12.4	12.7	12.3	12.2
Solids (%)	32.80%	29.80%	32.80%	41.20%	40.60%	37.70%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	5.12%	4.51%	4.45%	3.30%	2.59%	3.28%
Organic N	4.97%	3.88%	3.99%	3.00%	2.45%	2.95%
Ammonia N	0.16%	0.63%	0.46%	0.30%	0.14%	0.32%
Total Phosphorus (P)	10.30%	8.65%	8.92%	5.84%	6.50%	6.37%
Potassium (K)	0.36%	0.35%	0.34%	0.28%	0.25%	0.24%
Other Nutr. (% dw)						
Calcium (Ca)	15.18%	14.30%	13.72%	15.05%	15.62%	17.56%
Iron (Fe)	1.33%	0.91%	0.75%	0.63%	0.60%	0.51%
Boron (B)			0.00%			
Sulfur (S)			0.03%			
Reg'd Metals (mg/kg)						
Manganese (Mn)	262.80	220.81	189.02	157.77	173.89	250.93
Arsenic (As)	7.93	5.37	6.10	4.37	3.45	5.31
Cadmium (Cd)	5.49	5.37	5.49	5.34	4.43	4.24
Chromium (Cr)	29.27	20.13	23.78	27.67	21.18	12.20
Copper (Cu)	132.32	154.36	148.17	130.10	109.36	97.08
Lead (Pb)	43.90	53.69	50.00	37.38	33.50	25.46
Mercury (Hg)	0.43	0.20	0.30	0.19	0.15	0.21
Molybdenum (Mo)	14.02	15.44	18.29	14.56	25.62	14.32
Nickel (Ni)	37.80	37.58	31.10	40.29	45.81	53.58
Selenium (Se)	10.37	12.08	10.98	8.25	4.43	4.24
Zinc (Zn)	543.29	563.76	545.73	398.06	434.48	409.02
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/7/2013** through **12/30/2013**

Sample ID	05130470-001	05130197-001	04131098-001	04130873-001	04130590-001	04130314-001
Report Date	5/13/2013	5/6/2013	4/29/2013	4/22/2013	4/15/2013	4/8/2013
Date Sampled	5/13/2013	5/6/2013	4/29/2013	4/22/2013	4/15/2013	4/8/2013
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	12.2	12.2	12	12.1	12.1
Solids (%)	40.50%	36.20%	35.00%	38.70%	35.60%	31.40%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	2.87%	3.56%	3.65%	3.71%	3.25%	2.70%
Organic N	2.45%	3.08%	3.14%	3.31%	3.06%	2.13%
Ammonia N	0.42%	0.48%	0.51%	0.40%	0.19%	0.56%
Total Phosphorus (P)	6.60%	6.88%	6.57%	6.67%	6.99%	7.69%
Potassium (K)	0.21%	0.26%	0.25%	0.22%	0.26%	0.29%
Other Nutr. (% dw)						
Calcium (Ca)	16.10%	17.24%	12.69%	10.96%	11.69%	13.82%
Iron (Fe)	0.53%	0.77%	0.78%	0.65%	0.54%	0.82%
Boron (B)	0.00%		0.00%			
Sulfur (S)	0.95%		0.99%			
Reg'd Metals (mg/kg)						
Manganese (Mn)	235.56	236.46	251.43	227.91	225.28	256.05
Arsenic (As)	3.95	3.87	4.00	3.10	3.93	5.10
Cadmium (Cd)	5.43	4.97	4.57	4.13	5.06	4.46
Chromium (Cr)	20.74	14.92	24.57	11.89	15.73	16.56
Copper (Cu)	104.69	113.81	128.00	105.94	107.30	118.47
Lead (Pb)	22.72	28.73	32.57	28.94	25.84	27.39
Mercury (Hg)	0.25	0.28	0.46	0.41	0.39	0.32
Molybdenum (Mo)	13.83	16.57	14.86	13.95	15.73	19.11
Nickel (Ni)	40.49	35.91	37.71	32.56	35.96	45.22
Selenium (Se)	5.93	7.18	6.86	6.20	6.74	8.92
Zinc (Zn)	425.19	445.30	464.57	437.21	434.27	481.53
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/7/2013** through **12/30/2013**

Sample ID	04130033-001	03130861-001	03130639-001	03130385-001	03130120-001	02130857-001
Report Date	4/1/2013	3/25/2013	3/18/2013	3/11/2013	3/4/2013	2/25/2013
Date Sampled	4/1/2013	3/25/2013	3/18/2013	3/11/2013	3/4/2013	2/25/2013
Lab ID	CENTRIFUGE CAKE 503	CENTRIFUGE CAKE 503				CENTRIFUGE CAKE 503
Date Received						
County						
pH	12.1	12.6	12.1	12	12.4	12
Solids (%)	32.70%	34.60%	34.50%	35.20%	35.40%	41.60%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	4.17%	3.30%	4.03%	3.44%	3.74%	3.35%
Organic N	3.90%	3.10%	3.77%	3.25%	3.45%	3.12%
Ammonia N	0.27%	0.20%	0.25%	0.19%	0.30%	0.23%
Total Phosphorus (P)	9.58%	7.72%	7.93%	7.41%	7.43%	6.11%
Potassium (K)	0.32%	0.28%	0.28%	0.27%	0.26%	0.29%
Other Nutr. (% dw)						
Calcium (Ca)	12.78%	12.02%	11.54%	11.70%	12.60%	11.06%
Iron (Fe)	0.78%	0.61%	0.77%	1.34%	0.53%	0.82%
Boron (B)		0.00%				
Sulfur (S)		0.48%				
Reg'd Metals (mg/kg)						
Manganese (Mn)	240.37	212.72	213.91	247.73	203.95	185.10
Arsenic (As)	4.28	5.78	6.38	5.68	4.52	4.81
Cadmium (Cd)	4.89	5.20	5.80	5.11	5.08	4.81
Chromium (Cr)	12.84	14.45	12.75	15.91	12.43	16.83
Copper (Cu)	122.94	100.00	419.71	152.84	94.35	315.38
Lead (Pb)	31.19	30.64	17.39	22.73	29.38	26.92
Mercury (Hg)	0.12	0.17	0.12	0.28	0.23	0.24
Molybdenum (Mo)	21.41	19.65	17.97	15.91	22.03	9.13
Nickel (Ni)	37.92	36.42	37.68	44.32	38.42	31.25
Selenium (Se)	11.01	9.83	9.86	8.52	7.91	5.77
Zinc (Zn)	496.02	444.51	409.86	470.45	428.25	485.58
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/7/2013** through **12/30/2013**

Sample ID	02130613-001	02130371-001	02130124-001	01130926-001	01130712-001	01130444-001
Report Date	2/18/2013	2/11/2013	2/4/2013	1/28/2013	1/22/2013	1/14/2013
Date Sampled	2/18/2013	2/11/2013	2/4/2013	1/28/2013	1/22/2013	1/14/2013
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	12.2	12.5	12.4	12.2
Solids (%)	34.00%	33.20%	33.90%	42.90%	32.80%	33.40%
Volatile (% dw)						
Primary Nutr. (% dw)						
Total Kjeldehl N	3.86%	3.79%	3.34%	2.49%	3.43%	3.57%
Organic N	3.54%	3.41%	3.13%	2.39%	3.34%	3.25%
Ammonia N	0.32%	0.38%	0.22%	0.09%	0.09%	0.32%
Total Phosphorus (P)	9.31%	7.50%	7.00%	5.16%	8.04%	8.92%
Potassium (K)	0.28%	0.26%	0.27%	0.20%		
Other Nutr. (% dw)						
Calcium (Ca)	11.35%	11.33%	12.15%	9.51%		
Iron (Fe)	0.82%	0.70%	0.55%	0.50%	0.62%	0.69%
Boron (B)						
Sulfur (S)						
Reg'd Metals (mg/kg)						
Manganese (Mn)	242.94	206.63	237.17	177.62	210.98	265.27
Arsenic (As)	5.29	5.42	5.90	5.59	6.10	5.99
Cadmium (Cd)	5.29	6.02	6.49	4.66	4.88	5.39
Chromium (Cr)	17.65	19.28	18.29	15.85	15.85	17.96
Copper (Cu)	175.29	174.70	114.45	91.84	114.63	132.34
Lead (Pb)	30.59	30.72	38.35	22.38	23.78	37.13
Mercury (Hg)	0.24	0.30	0.29	0.14	0.30	0.18
Molybdenum (Mo)	12.35	15.66	19.47	17.72	21.34	19.76
Nickel (Ni)	184.12	341.57	38.94	67.13	44.51	46.71
Selenium (Se)	11.76	10.24	9.44	5.59	7.32	7.78
Zinc (Zn)	495.88	493.37	523.30	378.55	489.63	591.62
Other Data (mg/kg)						
PCBs						
Reactive Cyanide (Cn)						

Biosolids Characteristics

Source: Chattanooga **1/7/2013** through **12/30/2013**

Sample ID	01130217-001
Report Date	1/7/2013
Date Sampled	1/7/2013
Lab ID	CENTRIFUGE CAKE 503
Date Received	
County	
pH	12.4
Solids (%)	33.20%
Volatile (% dw)	
Primary Nutr. (% dw)	
Total Kjeldehl N	3.73%
Organic N	3.42%
Ammonia N	0.32%
Total Phosphorus (P)	7.23%
Potassium (K)	
Other Nutr. (% dw)	
Calcium (Ca)	
Iron (Fe)	0.64%
Boron (B)	
Sulfur (S)	
Reg'd Metals (mg/kg)	
Manganese (Mn)	242.17
Arsenic (As)	6.02
Cadmium (Cd)	5.42
Chromium (Cr)	18.67
Copper (Cu)	172.29
Lead (Pb)	40.36
Mercury (Hg)	0.18
Molybdenum (Mo)	19.28
Nickel (Ni)	101.20
Selenium (Se)	7.83
Zinc (Zn)	534.94
Other Data (mg/kg)	
PCBs	
Reactive Cyanide (Cn)	

APPENDIX D
503 PATHOGEN ANALYSES
FOR
2013 LAND APPLICATION

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

JANUARY, 2013

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 Wastewater Treatment Plant
455 Moccasin Bend Road
Chattanooga, TN 37405

ASI Project ID: 46671
Date Collected: 1/28/2013
Sample Receipt: 1/29/2013

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Feed	46671-01	1/28/2013 @ 8:30	Coliphage - Male Specific	0.30 g Dry Weight	2.40x10e4 PFU/g Dry Weight	1/29/2013 @ 16:20	1/30/2013 @ 13:15	ASI
			Enteric Viruses	4.06 g Dry Weight	<1 PFU/4.06g Dry Weight	1/30/2013 @ 12:20	2/25/2013	UNH
			Fecal Coliform	9.03 g Dry Weight	>5.35x10e4 MPN/g Dry Weight	1/29/2013 @ 11:40	1/31/2013 @ 09:54	ASI
			Salmonella	9.03 g Dry Weight	56.56 MPN/4g	1/29/2013 @11:40	2/5/2013 @ 07:53	ASI
			Total Solids	26.44 g Wet Weight	3.01%	1/29/2013 @ 11:56	1/30/2013 @ 7:36	ASI
			Viable Helminth Ova	4.36 g Dry Weight	<1 VHO/4.36g Dry Weight	2/11/2013 @ 13:02	2/13/2013 @ 15:17	ASI
Centrifuge Biosolids MBEL# 01130926	46671-02	1/28/2013 @ 8:30	Coliphage - Male Specific	3.26 g Dry Weight	<1 PFU/3.26g Dry Weight	1/29/2013 @ 16:20	1/30/2013 @ 13:15	ASI
			Enteric Viruses	4.61 g Dry Weight	<1 PFU/4.61g Dry Weight	1/30/2013 @ 13:45	2/25/2013	UNH
			Fecal Coliform	9.77 g Dry Weight	<0.55 MPN/g Dry Weight	1/29/2013 @ 11:40	1/31/2013 @ 09:54	ASI
			Salmonella	9.77 g Dry Weight	<0.80 MPN/4g	1/29/2013 @ 11:40	1/31/2013 @ 07:22	ASI
			Total Solids	28.33 g Wet Weight	32.56%	1/29/2013 @ 11:56	1/30/2013 @ 7:36	ASI
			Viable Helminth Ova	5.14 g Dry Weight	<1 VHO/5.14g Dry Weight	2/11/2013 @ 13:06	2/14/2013 @ 13:10	ASI

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

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Filter Press Feed	46671-03	1/28/2013 @ 8:30	Coliphage - Male Specific	0.29 g Dry Weight	2.90x10e4 PFU/g Dry Weight	1/29/2013 @ 16:20	1/30/2013 @ 13:15	ASI
			Enteric Viruses	4.00 g Dry Weight	<1 PFU/4.00g Dry Weight	1/30/2013 @ 12:20	2/25/2013	UNH
			Fecal Coliform	8.82 g Dry Weight	>5.47x10e4 MPN/g Dry Weight	1/29/2013 @ 11:40	1/31/2013 @ 10:04	ASI
			Salmonella	8.82 g Dry Weight	15.66 MPN/4g	1/29/2013 @ 11:40	2/5/2013 @ 07:53	ASI
			Total Solids	27.61 g Wet Weight	2.94%	1/29/2013 @ 11:56	1/30/2013 @ 7:36	ASI
			Viable Helminth Ova	4.41 g Dry Weight	<1 VHO/4.41g Dry Weight	2/11/2013 @ 13:10	2/14/2013 @ 13:35	ASI
Filter Press Biosolids MBEL# 01130928	46671-04	1/28/2013 @ 9:30	Coliphage - Male Specific	5.28 g Dry Weight	<1 PFU/5.28g Dry Weight	1/29/2013 @ 16:20	1/30/2013 @ 13:15	ASI
			Enteric Viruses	5.87 g Dry Weight	<1 PFU/5.87g Dry Weight	1/30/2013 @ 13:45	2/25/2013	UNH
			Fecal Coliform	15.85 g Dry Weight	<0.34 MPN/g Dry Weight	1/29/2013 @ 11:40	1/31/2013 @ 10:04	ASI
			Salmonella	15.85 g Dry Weight	<0.49 MPN/4g	1/29/2013 @ 11:40	1/31/2013 @ 07:22	ASI
			Total Solids	27.03 g Wet Weight	52.84%	1/29/2013 @ 11:56	1/30/2013 @ 7:36	ASI
			Viable Helminth Ova	4.33 g Dry Weight	<1 VHO/4.33g Dry Weight	2/11/2013 @ 14:03	2/14/2013 @ 14:27	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 helminth 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

FEBRUARY, 2013

ANALYTICAL SERVICES, INC.
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Client: Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga , TN 37405

ASI Project ID: 46787
Date Collected: 2/25/2013
Sample Receipt: 2/26/2013

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Biosolids MBEL# 02130857	46787-01	2/25/2013 @ 08:40	Enteric Viruses	5.28 g Dry Weight	<1 PFU/5.28 g Dry Weight	2/27/2013 @ 14:15	4/1/2013	UNH
			Fecal Coliform	10.8 g Dry Weight	<0.50 MPN/g Dry Weight	2/26/2013 @ 13:43	2/28/2013 @12:07	ASI
			Salmonella	10.8 g Dry Weight	<0.72 MPN/4g	2/26/2013 @ 13:43	2/28/2013 @ 07:19	ASI
			Total Solids	28.80 g Wet Weight	35.99%	2/26/2013 @ 11:27	2/27/2013 @ 07:17	ASI
			Viable Helminth Ova	5.94 g Dry Weight	<1 VHO/5.94g Dry Weight	3/11/2013 @ 11:41	3/12/2013 @ 12:39	ASI
Filter Press Biosolids MBEL# 02130859	46787-02	2/25/2013 @ 08:45	Enteric Viruses	6.89 g Dry Weight	<1 PFU/6.89 g Dry Weight	2/27/2013 @ 14:15	4/1/2013	UNH
			Fecal Coliform	16.52 g Dry Weight	<0.33 MPN/g Dry Weight	2/26/2013 @ 13:43	2/28/2013 @12:07	ASI
			Salmonella	16.52 g Dry Weight	<0.47 MPN/4g	2/26/2013 @ 13:43	2/28/2013 @ 07:19	ASI
			Total Solids	26.44 g Wet Weight	55.07%	2/26/2013 @ 11:27	2/27/2013 @ 07:17	ASI
			Viable Helminth Ova	4.52 g Dry Weight	<1 VHO/4.52g Dry Weight	3/11/2013 @ 11:47	3/12/2013 @ 13:22	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 helminth ova: Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, 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

MARCH, 2013

ANALYTICAL SERVICES, INC.
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Client: Moccasin Bend Wastewater Treament Plant
455 Moccasin Bend Road
Chattanooga, TN 37405

ASI Project ID: 46915
Date Collected: 3/25/2013
Sample Receipt: 3/26/2013

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Biosolids MBEL# 03130861	46915-01	3/25/2013 @ 08:35	Enteric Viruses	4.78 g Dry Weight	<1 PFU/4.78 g Dry Weight	3/27/2013 @ 08:50	4/10/2013	UNH
			Fecal Coliform	9.6 g Dry Weight	<5.63 MPN/g Dry Weight	3/26/2013 @ 12:50	3/28/2013 @ 10:27	ASI
			Salmonella	9.6 g Dry Weight	<0.81 MPN/4g	3/26/2013 @ 12:50	4/3/2013 @ 7:20	ASI
			Total Solids	28.25 g Wet Weight	32.00%	3/26/2013 @ 11:55	3/27/2013 @ 07:35	ASI
			Viable Helminth Ova	4.48 g Dry Weight	<1 VHO/4.48g Dry Weight	4/1/2013 @ 09:36	4/2/2013 @ 15:19	ASI
Filter Press Biosolids MBEL# 03130863	46915-02	3/25/2013 @ 09:05	Enteric Viruses	4.35 g Dry Weight	<1 PFU/4.35 g Dry Weight	3/27/2013 @ 08:50	4/10/2013	UNH
			Fecal Coliform	17.33 g Dry Weight	<3.12 MPN/g Dry Weight	3/26/2013 @ 12:50	3/28/2013 @ 10:27	ASI
			Salmonella	17.33 g Dry Weight	<0.45 MPN/4g	3/26/2013 @ 12:50	3/28/2013 @ 07:28	ASI
			Total Solids	29.31 g Wet Weight	57.78%	3/26/2013 @ 11:55	3/27/2013 @ 07:35	ASI
			Viable Helminth Ova	5.66 g Dry Weight	<1 VHO/5.66g Dry Weight	4/1/2013 @ 09:39	4/2/2013 @ 15:34	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 helminth ova: Yanko, WA, Occurrence of Pathogens in Distribution and Marketing Municipal Sludges, EPA-600-I87-014, 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

APRIL, 2013

ANALYTICAL SERVICES, INC.
Microbiological Testing, Research and Consulting

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

ASI Project ID: 47060
Date Collected: 4/29/2013
Sample Receipt: 4/30/2013

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Feed	47060-01	4/29/2013 @ 08:40	Coliphage - Male Specific	0.268 g Dry Weight	$4.6x10^3$ PFU/g Dry Weight	5/1/13 @ 16:41	5/2/13 @ 9:55	ASI
			Enteric Viruses	4.02 g Dry Weight	<1 PFU/4.02 g Dry Weight	5/1/2013 @ 09:40	5/22/2013	UNH
			Fecal Coliform	8.04 g Dry Weight	>6.00x10e4 MPN/g Dry Weight	4/30/2013 @ 13:26	5/2/2013 @ 10:45	ASI
			Salmonella	8.04 g Dry Weight	63.52 MPN/4g	4/30/2013 @ 13:26	5/8/2013 @ 08:27	ASI
			Total Solids	30.60 g Wet Weight	2.68%	4/30/2013 @ 12:45	5/1/2013 @ 07:53	ASI
			Viable Helminth Ova	4.40 g Dry Weight	<1 VHO/4.40g Dry Weight	5/6/2013 @ 08:11	5/7/2013 @ 12:29	ASI
Centrifuge Biosolids MBEL# 04131098	47060-02	4/29/2013 @ 08:25	Coliphage - Male Specific	3.55 g Dry Weight	<1 PFU/3.55g Dry Weight	5/1/13 @ 16:41	5/2/13 @ 9:55	ASI
			Enteric Viruses	5.14 g Dry Weight	<1 PFU/5.14 g Dry Weight	5/1/2013 @ 09:40	5/21/2013	UNH
			Fecal Coliform	10.64g Dry Weight	<5.08 MPN/g Dry Weight	4/30/2013 @ 13:26	5/2/2013 @ 10:47	ASI
			Salmonella	10.64g Dry Weight	<0.73 MPN/4g	4/30/2013 @ 13:26	5/2/2013 @ 07:47	ASI
			Total Solids	30.41 g Wet Weight	35.48%	4/30/2013 @ 12:45	5/1/2013 @ 07:53	ASI
			Viable Helminth Ova	4.40 g Dry Weight	<1 VHO/4.40g Dry Weight	5/6/2013 @ 08:14	5/7/2013 @ 12:35	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# 04131100	47060-03	4/29/2013 @ 08:50	Coliphage - Male Specific	6.71g Dry Weight	<1 PFU/6.71g Dry Weight	5/1/13 @ 16:41	5/2/13 @ 9:55	ASI
			Enteric Viruses	4.47 g Dry Weight	<1 PFU/4.47 g Dry Weight	5/1/2013 @ 09:40	5/16/2013	UNH
			Fecal Coliform	20.12 g Dry Weight	<2.69 MPN/g Dry Weight	4/30/2013 @ 13:26	5/2/2013 @ 10:47	ASI
			Salmonella	20.12 g Dry Weight	<0.39 MPN/4g	4/30/2013 @ 13:26	5/2/2013 @ 07:47	ASI
			Total Solids	27.34 g Wet Weight	67.06%	4/30/2013 @ 12:45	5/1/2013 @ 07:53	ASI
			Viable Helminth Ova	4.96 g Dry Weight	<1 VHO/4.96g Dry Weight	5/6/2013 @ 08:18	5/7/2013 @ 13:02	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
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 helminth 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).
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Exceptions: Please note that the coliphage analysis was analyzed outside of method hold time.

MAY, 2013

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

ASI Project ID: 47122
Date Collected: 5/13/2013
Sample Receipt: 5/14/2013

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Biosolids MBEL# 05130470	47122-01	5/13/2013 @ 08:35	Enteric Viruses	5.11 g Dry Weight	<1 PFU/5.11 g Dry Weight	5/14/2013 @ 11:09	5/28/2013	UNH
			Fecal Coliform	12.16 g Dry Weight	<4.45 MPN/g Dry Weight	5/14/2013 @ 12:15	12/16/2013 @ 12:52	ASI
			Salmonella	12.16 g Dry Weight	<0.64 MPN/4g	5/14/2103 @ 12:15	5/16/2013 @ 0720	ASI
			Total Solids	26.99 g Wet Weight	40.53%	5/14/2013 @ 11:00	5/15/2013 @ 07:40	ASI
			Viable Helminth Ova	4.54g Dry Weight	<1VHO/4.54g Dry Weight	5/22/2013 @ 08:53	5/23/2013 @ 11:29	ASI
Filter Press Biosolids MBEL# 05130472	47122-02	5/13/2013 @ 08:30	Enteric Viruses	5.76 g Dry Weight	<1 PFU/5.76 g Dry Weight	5/14/2013 @ 11:09	5/28/2013	UNH
			Fecal Coliform	16.17 g Dry Weight	<3.35 MPN/g Dry Weight	5/14/2013 @ 12:15	12/16/2013 @ 12:52	ASI
			Salmonella	16.17 g Dry Weight	<0.48 MPN/4g	5/14/2103 @ 12:15	5/16/2013 @ 0720	ASI
			Total Solids	30.11 g Wet Weight	53.89%	5/14/2013 @ 11:00	5/15/2013 @ 07:40	ASI
			Viable Helminth Ova	4.69 g Dry Weight	<1 VHO/4.69g Dry Weight	5/22/2013 @ 08:55	5/23/2013 @ 11:36	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 helminth 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).
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Exceptions: None

JUNE, 2013

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Chattanooga, TN 37405

ASI Project ID: 47257
Date Collected: 6/10/2013
Sample Receipt: 6/12/2013

JUL 3 0 2013

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Biosolids MBEL# 07130340	47257-01	6/10/2013 @ 08:30	Enteric Viruses	4.48 g Dry Weight	<1 PFU/4.48 g Dry Weight	6/12/2013	7/10/2013	UNH
			Fecal Coliform	9.84 g Dry Weight	< 5.50 MPN/g Dry Weight	6/12/2013 @ 13:15	6/14/2013 @ 12:05	ASI
			Salmonella	9.84 g Dry Weight	<0.79 MPN/4g	6/12/2013 @ 13:15	6/14/2013 @ 07:30	ASI
			Total Solids	29.27 g Wet Weight	32.80%	6/12/2013 @ 12:35	6/13/2013 @ 07:30	ASI
			Viable Helminth Ova	4.85 g Dry Weight	<1 VHO/4.85g Dry Weight	6/17/2013 @ 09:36	6/19/2013 @ 13:38	ASI
Filter Press Biosolids MBEL# 07130343	47257-02	6/10/2013 @ 08:50	Enteric Viruses	6.75g Dry Weight	<1 PFU/6.75 g Dry Weight	6/12/2013	7/10/2013	UNH
			Fecal Coliform	18.18 g Dry Weight	< 2.98 MPN/g Dry Weight	6/12/2013 @ 13:15	6/14/2013 @ 12:05	ASI
			Salmonella	18.18 g Dry Weight	<0.43 MPN/4g	6/12/2013 @ 13:15	6/14/2013 @ 07:30	ASI
			Total Solids	27.45 g Wet Weight	60.60%	6/12/2013 @ 12:35	6/13/2013 @ 07:30	ASI
			Viable Helminth Ova	4.79 g Dry Weight	<1 VHO/4.79g Dry Weight	6/17/2013 @ 09:52	6/19/2013 @ 09:20	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-I87-014, 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: Please note that samples were received out of method hold time for fecal coliform and *Salmonella*. Samples were received out of suggested temperature range. Samples were processed per client's request.

JULY, 2013

ANALYTICAL SERVICES, INC.
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Client: Moccasin Bend WWTP
455 Maccasin Bend Road
Chattanooga, TN 37405

ASI Project ID: 47421
Date Collected: 7/22/2013
Sample Receipt: 7/23/2013

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Feed	47421-01	7/22/2013 @ 08:30	Enteric Viruses	4.03 g Dry Weight	<1 PFU/4.03 g Dry Weight	7/24/2013 @ 10:00	8/13/2013	UNH
			Fecal Coliform	6.54 g Dry Weight	>7.4x10^4 MPN/g Dry Weight	7/23/2013 @ 13:20	7/25/2013 @ 10:46	ASI
			Salmonella	6.54 g Dry Weight	14.8 MPN/4g Dry Weight	7/23/2013 @ 13:20	7/30/2013 @ 07:45	ASI
			Total Solids	27.90 g Wet Weight	2.18%	7/23/2013 @ 10:35	7/24/2013 @ 07:00	ASI
			Viable Helminth Ova	8.13 g Dry Weight	<1 VHO/8.13g Dry Weight	8/5/2013 @ 12:32	8/6/2013 @ 13:43	ASI
			Coliphage - Male Specific	0.218 g Dry Weight	1.5x10^4 PFU/g Dry Weight	7/23/13 @ 16:37	7/24/13 @ 10:32	ASI
Centrifuge biosolids MBEL# 07130819	47421-02	7/22/2013 @ 08:20	Enteric Viruses	4.02 g Dry Weight	<1 PFU/4.02 g Dry Weight	7/24/2013 @ 10:00	8/13/2013	UNH
			Fecal Coliform	11.90 g Dry Weight	<4.54 MPN/g Dry Weight	7/23/2013 @ 13:20	7/25/2013 @ 10:43	ASI
			Salmonella	11.90 g Dry Weight	<0.65 MPN/4g Dry Weight	7/23/2013 @ 13:20	7/25/2013 @ 07:17	ASI
			Total Solids	27.81 g Wet Weight	39.68%	7/23/2013 @ 10:35	7/24/2013 @ 07:00	ASI
			Viable Helminth Ova	4.88 g Dry Weight	<1 VHO/4.88g Dry Weight	8/5/2013 @ 12:38	8/6/2013 @ 14:37	ASI
			Coliphage - Male Specific	3.97 g Dry Weight	<1 PFU/3.97g Dry Weight	7/23/13 @ 16:37	7/24/13 @ 10:32	ASI

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ASI Project ID: 47421
Date Collected: 7/22/2013
Sample Receipt: 7/23/2013

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Filter press feed	47421-03	7/22/2013 @ 08:25	Enteric Viruses	4.01 g Dry Weight	<1 PFU/4.01 g Dry Weight	7/24/2013 @ 10:00	8/15/2013	UNH
			Fecal Coliform	6.51 g Dry Weight	>7.74x10^4 MPN/g Dry Weight	7/23/2013 @ 13:20	7/25/2013 @ 10:46	ASI
			Salmonella	6.51 g Dry Weight	4 MPN/4g Dry Weight	7/23/2013 @ 13:20	7/30/2013 @ 07:45	ASI
			Total Solids	27.72 g Wet Weight	2.17%	7/23/2013 @ 10:35	7/24/2013 @ 07:00	ASI
			Viable Helminth Ova	4.03 g Dry Weight	<1 VHO/4.03g Dry Weight	8/5/2013 @ 12:40	8/6/2013 @ 14:54	ASI
			Coliphage - Male Specific	0.217 g Dry Weight	1.0x10^4 PFU/g Dry Weight	7/23/13 @ 16:37	7/24/13 @ 10:32	ASI
Filter press biosolids MBEL# 07130821	47421-04	7/22/2013 @ 08:30	Enteric Viruses	4.09 g Dry Weight	<1 PFU/4.09 g Dry Weight	7/24/2013 @ 10:00	8/15/2013	UNH
			Fecal Coliform	17.42 g Dry Weight	<3.10 MPN/g Dry Weight	7/23/2013 @ 13:20	7/25/2013 @ 10:43	ASI
			Salmonella	17.42 g Dry Weight	<0.45MPN/4g Dry Weight	7/23/2013 @ 13:20	7/25/2013 @ 07:17	ASI
			Total Solids	29.53 g Wet Weight	58.08%	7/23/2013 @ 10:35	7/24/2013 @ 07:00	ASI
			Viable Helminth Ova	4.99 g Dry Weight	<1 VHO/4.99g Dry Weight	8/5/2013 @ 12:53	8/7/2013 @ 09:54	ASI
			Coliphage - Male Specific	5.81 g Dry Weight	<1 PFU/5.81g Dry Weight	7/23/13 @ 16:37	7/24/13 @ 10:32	ASI

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Client:	Moccasin Bend WWTP 455 Maccasin Bend Road Chattanooga, TN 37405
ASI Project ID	47421
Date Collected	7/22/2013
Sample Receipt	7/23/2013

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-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:
Fecal Coliform - Sample(s) processed out of recommended 6 hour hold time (due to overnight shipping and next day receipt).
Salmonella - Sample(s) processed out of recommended 6 hour hold time (due to overnight shipping and next day receipt)

AUGUST, 2013

ANALYTICAL SERVICES, INC.
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Client: Moccasin Bend WWTP
455 Moccasin Bend Road
Chattanooga, TN 37405

ASI Project ID: 47497
Date Collected: 8/12/2013
Sample Receipt: 8/13/2013

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Biosolids MBEL# 08130434	47497-01	8/12/2013 @ 8:40	Enteric Viruses	5.48 g Dry Weight	<1 PFU/5.48 g Dry Weight	8/14/2013 @ 11:10	9/9/2013	UNH
			Fecal Coliform	10.63 g Dry Weight	<5.09 MPN/g Dry Weight	8/13/2013 @ 12:00	8/15/2013 @ 10:02	ASI
			Salmonella	10.63 g Dry Weight	<0.73 MPN/4g Dry Weight	8/13/2013 @ 12:00	8/15/2013 @ 07:10	ASI
			Total Solids	28.26 g Wet Weight	35.43%	8/13/2013 @ 11:02	8/14/2013 @ 07:07	ASI
			Viable Helminth Ova	4.43 g Dry Weight	<1 VHO/4.43g Dry Weight	8/19/2013 @ 11:01	8/21/2013 @ 14:01	ASI
Filter Press Biosolids MBEL# 08130436	47497-02	8/12/2013 @ 8:50	Enteric Viruses	4.93 g Dry Weight	<1 PFU/4.93 g Dry Weight	8/14/2013 @ 11:10	9/9/2013	UNH
			Fecal Coliform	22.28 g Dry Weight	<2.43 MPN/g Dry Weight	8/13/2013 @ 12:00	8/15/2013 @ 10:02	ASI
			Salmonella	22.28 g Dry Weight	<0.35 MPN/4g Dry Weight	8/13/2013 @ 12:00	8/15/2013 @ 07:10	ASI
			Total Solids	27.57 g Wet Weight	74.28%	8/13/2013 @ 11:02	8/14/2013 @ 07:07	ASI
			Viable Helminth Ova	5.13 g Dry Weight	<1 VHO/5.13g Dry Weight	8/19/2013 @ 11:04	8/21/2013 @ 14:22	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-I87-014, USEPA, 1988.

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Exceptions:
Fecal Coliform - Samples processed out of recommended 6 hour hold time (due to overnight shipping and next day receipt).
Salmonella - Samples processed out of recommended 6 hour hold time (due to overnight shipping and next day receipt).

SEPTEMBER, 2013

ANALYTICAL SERVICES, INC.
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OCT 1 4 2013

Client: Moccasin Bend WWTP
455 Moccasin Bend Road
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ASI Project ID: 47597
Date Collected: 9/9/2013
Sample Receipt: 9/10/2013

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Biosolids MBEL # 09130255	47597-01	9/9/2013 8:30	Enteric Viruses	5.35 g Dry Weight	<1 PFU/5.35 g Dry Weight	9/11/2013 @ 09:49	9/27/2013	UNH
			Fecal Coliform	10.37 g Dry Weight	<5.22 MPN/g Dry Weight	9/10/2013 @ 15:45	9/12/2013 @ 12:51	ASI
			Salmonella	10.37 g Dry Weight	<0.75 MPN/4g Dry Weight	9/10/2013 @ 15:45	9/12/2013 @ 07:00	ASI
			Total Solids	28.57 g Wet Weight	34.55%	9/10/2013 @ 12:06	9/11/2013 @ 07:22	ASI
			Viable Helminth Ova	4.04 g Dry Weight	<1 VHO/4.04 g Dry Weight	9/16/2013 @ 09:04	9/17/2013 @ 16:07	ASI
Filter Press Biosolids MBEL # 09130258	47597-02	9/9/2013 @ 08:45	Enteric Viruses	6.59 g Dry Weight	<1 PFU/6.59 g Dry Weight	9/11/2013 @ 09:49	9/27/2013	UNH
			Fecal Coliform	17.91 g Dry Weight	<3.02 MPN/g Dry Weight	9/10/2013 @ 15:45	9/12/2013 @ 12:51	ASI
			Salmonella	17.91 g Dry Weight	<0.43 MPN/4g Dry Weight	9/10/2013 @ 15:45	9/12/2013 @ 07:00	ASI
			Total Solids	25.79 g Wet Weight	59.70%	9/10/2013 @ 12:06	9/11/2013 @ 07:22	ASI
			Viable Helminth Ova	4 g Dry Weight	<1 VHO/4 g Dry Weight	9/16/2013 @ 13:51	9/18/2013 @ 08:43	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-I87-014, 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:
Fecal Coliform - Samples processed out of recommended 6 hour hold time (due to overnight shipping and next day receipt).
Salmonella - Samples processed out of recommended 6 hour hold time (due to overnight shipping and next day receipt).

OCTOBER, 2013

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
www.analyticalservices.com

DEC 0 2 2013

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

ASI Project ID: 47740
Date Collected: 10/14/2013
Sample Receipt: 10/15/2013

Analytical Results

Client Sample ID	ASI Sample ID	Date/Time Collected	Parameter	Amount Analyzed	Result	Date/Time Analyzed		Lab
						Start	End	
Centrifuge Feed	47740-01	10/14/2013 9:35	Enteric Viruses	4.19 g Dry Weight	<1 PFU/4.19 g Dry Weight	10/22/2013 @ 19:33	11/12/2013	UNH
			Fecal Coliform	5.82 g Dry Weight	>8.29x10e4 MPN/g Dry Weight	10/15/2013 13:27	10/17/2013 12:42	ASI
			Salmonella	5.82 g Dry Weight	10.33 MPN/4 g Dry Weight	10/15/2013 13:27	10/23/2013 9:22	ASI
			Total Solids	31.77 g Wet Weight	1.94%	10/15/2013 12:50	10/16/2013 07:20	ASI
			Viable Helminth Ova	3.63 g Dry Weight	<1 VHO/3.63 g Dry Weight	10/21/2013 @ 9:52	10/21/2013 @ 14:31	ASI
			Coliphage - Male Specific	0.194 g Dry Weight	1.40x10e5 PFU/g Dry Weight	10/15/13 @ 16:45	10/16/13 @ 12:31	ASI
Centrifuge Biosolids MBEL# 10130423	47740-02	10/14/2013 8:15	Enteric Viruses	4.81 g Dry Weight	<1 PFU/4.81 g Dry Weight	10/22/2013 @ 18:20	11/12/2013	UNH
			Fecal Coliform	11.97 g Dry Weight	<4.52 MPN/g Dry Weight	10/15/2013 13:27	10/17/2013 12:42	ASI
			Salmonella	11.97 g Dry Weight	<0.65 MPN/4 g Dry Weight	10/15/2013 13:27	10/17/2013 6:50	ASI
			Total Solids	25.82 g Wet Weight	39.91%	10/15/2013 12:50	10/16/2013 07:20	ASI
			Viable Helminth Ova	4.19 g Dry Weight	<1 VHO/4.19 g Dry Weight	10/21/2013 @ 9:54	10/21/2013 @ 15:01	ASI
			Coliphage - Male Specific	3.991g Dry Weight	<1 PFU/3.991g Dry Weight	10/15/13 @ 16:45	10/16/13 @ 12:31	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-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.

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ASI = Analytical Services, Inc. is accredited by FL-DOH (Lab No. E871011) under NELAC for analysis of selected parameters in solid matrices.

Exceptions:
Fecal Coliform - Samples processed out of recommended 6 hour hold time (due to overnight shipping and next day receipt).
Salmonella - Samples processed out of recommended 6 hour hold time (due to overnight shipping and next day receipt).
VHO - 47740-01 Sample processed with less than 4g of dry weight due to insufficient amount of sample (client and approved to process).

NOVEMBER, 2013
DECEMBER, 2013

(Please refer to section 2.3.1 for change in frequency of these analyses)

APPENDIX F
503 GRAB SAMPLES
FECAL COLIFORM ANALYSES
FOR
2013 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.

APPENDIX E
503 PCB AND TCLP ANALYSES
FOR
2013 LAND APPLICATION

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

12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
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Tax I.D. 62-0814289

Est. 1970

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

Report Summary

Wednesday February 27, 2013

Report Number: L620869
Samples Received: 02/19/13
Client Project:

Description: Sludge Solids

2013 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 , 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, IA Lab #364

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.

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Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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REPORT OF ANALYSIS

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

February 27,2013

ESC Sample # : L620869-01

Date Received : February 19, 2013
Description : Sludge Solids

Site ID :

Sample ID : CENTRIFUGE BIOSOLIDS

Project :

Collected By : Anne Gehrke
Collection Date : 02/18/13 08:30

Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	02/20/13 0810	JEC	1
Mercury	BDL	0.0010	mg/l	0.20	7470A	02/20/13 1819	CCE	1
Arsenic	BDL	0.10	mg/l	5.0	6010B	02/21/13 2024	ST	2
Barium	1.1	0.15	mg/l	100	6010B	02/21/13 1947	ST	1
Cadmium	BDL	0.050	mg/l	1.0	6010B	02/21/13 1947	ST	1
Chromium	BDL	0.050	mg/l	5.0	6010B	02/21/13 1947	ST	1
Lead	BDL	0.10	mg/l	5.0	6010B	02/21/13 2024	ST	2
Selenium	0.087	0.050	mg/l	1.0	6010B	02/21/13 1947	ST	1
Silver	BDL	0.10	mg/l	5.0	6010B	02/21/13 2024	ST	2
TCLP ZHE Extraction	-				1311	02/20/13 0810	JEC	1
TCLP Volatiles								
Benzene	BDL	0.050	mg/l	0.50	8260B	02/20/13 1407	SHA	1
Carbon tetrachloride	BDL	0.050	mg/l	0.50	8260B	02/20/13 1407	SHA	1
Chlorobenzene	BDL	0.050	mg/l	100	8260B	02/20/13 1407	SHA	1
Chloroform	BDL	0.25	mg/l	6.0	8260B	02/20/13 1407	SHA	1
1,2-Dichloroethane	BDL	0.050	mg/l	0.50	8260B	02/20/13 1407	SHA	1
1,1-Dichloroethene	BDL	0.050	mg/l	0.70	8260B	02/20/13 1407	SHA	1
2-Butanone (MEK)	BDL	0.50	mg/l	200	8260B	02/20/13 1407	SHA	1
Tetrachloroethene	BDL	0.050	mg/l	0.70	8260B	02/20/13 1407	SHA	1
Trichloroethene	BDL	0.050	mg/l	0.50	8260B	02/20/13 1407	SHA	1
Vinyl chloride	BDL	0.050	mg/l	0.20	8260B	02/20/13 1407	SHA	1
Surrogate Recovery								
Toluene-d8	97.9		% Rec.	114.	8260B	02/20/13 1407	SHA	1
Dibromofluoromethane	98.5		% Rec.	125.	8260B	02/20/13 1407	SHA	1
a,a,a-Trifluorotoluene	104.		% Rec.	114.	8260B	02/20/13 1407	SHA	1
4-Bromofluorobenzene	104.		% Rec.	128.	8260B	02/20/13 1407	SHA	1
TCLP Pesticides								
Chlordane	BDL	0.0050	mg/l	0.030	8081A	02/25/13 1749	CBB	1
Endrin	BDL	0.0050	mg/l	0.020	8081A	02/25/13 1749	CBB	1
Heptachlor	BDL	0.0050	mg/l	0.0080	8081A	02/25/13 1749	CBB	1
Lindane	BDL	0.0050	mg/l	0.40	8081A	02/25/13 1749	CBB	1
Methoxychlor	BDL	0.0050	mg/l	10.	8081A	02/25/13 1749	CBB	1
Toxaphene	BDL	0.010	mg/l	0.50	8081A	02/25/13 1749	CBB	1
Surrogate Recovery								
Decachlorobiphenyl	63.7		% Rec.	123.	8081A	02/25/13 1749	CBB	1
Tetrachloro-m-xylene	57.1		% Rec.	114.	8081A	02/25/13 1749	CBB	1

TCLP Herbicides

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Est. 1970

REPORT OF ANALYSIS

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

February 27,2013

ESC Sample # : L620869-01

Date Received : February 19, 2013
Description : Sludge Solids

Site ID :

Sample ID : CENTRIFUGE BIOSOLIDS

Project :

Collected By : Anne Gehrke
Collection Date : 02/18/13 08:30

Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	1.0	8151A	02/25/13 2053	KLM	1
2,4-D	BDL	0.0020	mg/l	10.	8151A	02/25/13 2053	KLM	1
Surrogate Recovery								
2,4-Dichlorophenyl Acetic Acid	92.8		% Rec.		8151A	02/25/13 2053	KLM	1
TCLP Semi-Volatiles								
1,4-Dichlorobenzene	BDL	0.10	mg/l	7.5	8270C	02/21/13 0801	KMF	1
2,4-Dinitrotoluene	BDL	0.10	mg/l	0.13	8270C	02/21/13 0801	KMF	1
Hexachlorobenzene	BDL	0.10	mg/l	0.13	8270C	02/21/13 0801	KMF	1
Hexachloro-1,3-butadiene	BDL	0.10	mg/l	0.50	8270C	02/21/13 0801	KMF	1
Hexachloroethane	BDL	0.10	mg/l	3.0	8270C	02/21/13 0801	KMF	1
Nitrobenzene	BDL	0.10	mg/l	2.0	8270C	02/21/13 0801	KMF	1
Pyridine	BDL	0.10	mg/l	5.0	8270C	02/21/13 0801	KMF	1
3&4-Methyl Phenol	0.32	0.10	mg/l	400	8270C	02/21/13 0801	KMF	1
2-Methylphenol	0.29	0.10	mg/l	200	8270C	02/21/13 0801	KMF	1
Pentachlorophenol	BDL	0.10	mg/l	100	8270C	02/21/13 0801	KMF	1
2,4,5-Trichlorophenol	BDL	0.10	mg/l	400	8270C	02/21/13 0801	KMF	1
2,4,6-Trichlorophenol	BDL	0.10	mg/l	2.0	8270C	02/21/13 0801	KMF	1
Surrogate Recovery								
2-Fluorophenol	45.2		% Rec.	87.0	8270C	02/21/13 0801	KMF	1
Phenol-d5	35.0		% Rec.	67.0	8270C	02/21/13 0801	KMF	1
Nitrobenzene-d5	73.1		% Rec.	120.	8270C	02/21/13 0801	KMF	1
2-Fluorobiphenyl	81.3		% Rec.	122.	8270C	02/21/13 0801	KMF	1
2,4,6-Tribromophenol	82.0		% Rec.	148.	8270C	02/21/13 0801	KMF	1
p-Terphenyl-d14	84.0		% Rec.	149.	8270C	02/21/13 0801	KMF	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: 02/27/13 10:43 Printed: 02/27/13 10:44

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Est. 1970

REPORT OF ANALYSIS

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

February 27,2013

ESC Sample # : L620869-02

Date Received : February 19, 2013
Description : Sludge Solids

Site ID :

Sample ID : CENTRIFUGE BIOSOLIDS

Project # :

Collected By : Anne Gehrke
Collection Date : 02/18/13 08:30

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	35.2	0.100	35.2	0.100	%	2540 G-2	02/27/13
Polychlorinated Biphenyls							
PCB 1016	BDL	0.017	BDL	0.048	mg/kg	8082	02/20/13
PCB 1221	BDL	0.017	BDL	0.048	mg/kg	8082	02/20/13
PCB 1232	BDL	0.017	BDL	0.048	mg/kg	8082	02/20/13
PCB 1242	BDL	0.017	BDL	0.048	mg/kg	8082	02/20/13
PCB 1248	BDL	0.017	BDL	0.048	mg/kg	8082	02/20/13
PCB 1254	BDL	0.017	BDL	0.048	mg/kg	8082	02/20/13
PCB 1260	BDL	0.017	BDL	0.048	mg/kg	8082	02/20/13
PCBs Surrogates							
Decachlorobiphenyl	53.8		53.8		% Rec.	8082	02/20/13
Tetrachloro-m-xylene	73.0		73.0		% Rec.	8082	02/20/13

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: 02/27/13 10:43 Printed: 02/27/13 10:44

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L620869-01	WG637712	SAMP	Arsenic	R2553040	O
	WG637712	SAMP	Lead	R2553040	O
	WG637712	SAMP	Silver	R2553040	O

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
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
02/27/13 at 10:44:07

TSR Signing Reports: 650

Sample: L620869-01 Account: MOCBENCTN Received: 02/19/13 09:00 Due Date: 02/28/13 00:00 RPT Date: 02/27/13 10:43

Sample: L620869-02 Account: MOCBENCTN Received: 02/19/13 09:00 Due Date: 02/28/13 00:00 RPT Date: 02/27/13 10:43

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

Report Summary

Wednesday February 27, 2013

Report Number: L620870
Samples Received: 02/19/13
Client Project:

Description: Sludge Solids

2013 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 , 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, IA Lab #364

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.

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Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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REPORT OF ANALYSIS

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

February 27,2013

ESC Sample # : L620870-01

Date Received : February 19, 2013
Description : Sludge Solids

Site ID :

Sample ID : FILTER PRESS BIOSOLIDS

Project :

Collected By : Jesse Compton
Collection Date : 02/18/13 08:40

Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP Extraction	-				1311	02/20/13 0810	JEC	1
Mercury	BDL	0.0010	mg/l	0.20	7470A	02/20/13 1806	CCE	1
Arsenic	BDL	0.25	mg/l	5.0	6010B	02/21/13 2011	ST	5
Barium	0.43	0.15	mg/l	100	6010B	02/21/13 1930	ST	1
Cadmium	BDL	0.050	mg/l	1.0	6010B	02/21/13 1930	ST	1
Chromium	BDL	0.050	mg/l	5.0	6010B	02/21/13 1930	ST	1
Lead	BDL	0.25	mg/l	5.0	6010B	02/21/13 2011	ST	5
Selenium	BDL	0.050	mg/l	1.0	6010B	02/21/13 1930	ST	1
Silver	BDL	0.25	mg/l	5.0	6010B	02/21/13 2011	ST	5
TCLP ZHE Extraction	-				1311	02/20/13 0810	JEC	1
TCLP Volatiles								
Benzene	BDL	0.050	mg/l	0.50	8260B	02/20/13 1426	SHA	1
Carbon tetrachloride	BDL	0.050	mg/l	0.50	8260B	02/20/13 1426	SHA	1
Chlorobenzene	BDL	0.050	mg/l	100	8260B	02/20/13 1426	SHA	1
Chloroform	BDL	0.25	mg/l	6.0	8260B	02/20/13 1426	SHA	1
1,2-Dichloroethane	BDL	0.050	mg/l	0.50	8260B	02/20/13 1426	SHA	1
1,1-Dichloroethene	BDL	0.050	mg/l	0.70	8260B	02/20/13 1426	SHA	1
2-Butanone (MEK)	BDL	0.50	mg/l	200	8260B	02/20/13 1426	SHA	1
Tetrachloroethene	BDL	0.050	mg/l	0.70	8260B	02/20/13 1426	SHA	1
Trichloroethene	BDL	0.050	mg/l	0.50	8260B	02/20/13 1426	SHA	1
Vinyl chloride	BDL	0.050	mg/l	0.20	8260B	02/20/13 1426	SHA	1
Surrogate Recovery								
Toluene-d8	99.2		% Rec.	114.	8260B	02/20/13 1426	SHA	1
Dibromofluoromethane	96.4		% Rec.	125.	8260B	02/20/13 1426	SHA	1
a,a,a-Trifluorotoluene	105.		% Rec.	114.	8260B	02/20/13 1426	SHA	1
4-Bromofluorobenzene	105.		% Rec.	128.	8260B	02/20/13 1426	SHA	1
TCLP Pesticides								
Chlordane	BDL	0.0050	mg/l	0.030	8081A	02/25/13 1804	CBB	1
Endrin	BDL	0.0050	mg/l	0.020	8081A	02/25/13 1804	CBB	1
Heptachlor	BDL	0.0050	mg/l	0.0080	8081A	02/25/13 1804	CBB	1
Lindane	BDL	0.0050	mg/l	0.40	8081A	02/25/13 1804	CBB	1
Methoxychlor	BDL	0.0050	mg/l	10.	8081A	02/25/13 1804	CBB	1
Toxaphene	BDL	0.010	mg/l	0.50	8081A	02/25/13 1804	CBB	1
Surrogate Recovery								
Decachlorobiphenyl	28.2		% Rec.	123.	8081A	02/25/13 1804	CBB	1
Tetrachloro-m-xylene	25.5		% Rec.	114.	8081A	02/25/13 1804	CBB	1
TCLP Herbicides								

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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 27,2013

ESC Sample # : L620870-01

Date Received : February 19, 2013
Description : Sludge Solids

Site ID :

Sample ID : FILTER PRESS BIOSOLIDS

Project :

Collected By : Jesse Compton
Collection Date : 02/18/13 08:40

Parameter	Result	Det. Limit	Units	Limit	Method	Date/Time	By	Dil
2,4,5-TP (Silvex)	BDL	0.0020	mg/l	1.0	8151A	02/25/13 2106	KLM	1
2,4-D	BDL	0.0020	mg/l	10.	8151A	02/25/13 2106	KLM	1
Surrogate Recovery								
2,4-Dichlorophenyl Acetic Acid	110.		% Rec.		8151A	02/25/13 2106	KLM	1
TCLP Semi-Volatiles								
1,4-Dichlorobenzene	BDL	0.10	mg/l	7.5	8270C	02/21/13 0822	KMF	1
2,4-Dinitrotoluene	BDL	0.10	mg/l	0.13	8270C	02/21/13 0822	KMF	1
Hexachlorobenzene	BDL	0.10	mg/l	0.13	8270C	02/21/13 0822	KMF	1
Hexachloro-1,3-butadiene	BDL	0.10	mg/l	0.50	8270C	02/21/13 0822	KMF	1
Hexachloroethane	BDL	0.10	mg/l	3.0	8270C	02/21/13 0822	KMF	1
Nitrobenzene	BDL	0.10	mg/l	2.0	8270C	02/21/13 0822	KMF	1
Pyridine	BDL	0.10	mg/l	5.0	8270C	02/21/13 0822	KMF	1
3&4-Methyl Phenol	0.12	0.10	mg/l	400	8270C	02/21/13 0822	KMF	1
2-Methylphenol	BDL	0.10	mg/l	200	8270C	02/21/13 0822	KMF	1
Pentachlorophenol	BDL	0.10	mg/l	100	8270C	02/21/13 0822	KMF	1
2,4,5-Trichlorophenol	BDL	0.10	mg/l	400	8270C	02/21/13 0822	KMF	1
2,4,6-Trichlorophenol	BDL	0.10	mg/l	2.0	8270C	02/21/13 0822	KMF	1
Surrogate Recovery								
2-Fluorophenol	46.3		% Rec.	87.0	8270C	02/21/13 0822	KMF	1
Phenol-d5	38.1		% Rec.	67.0	8270C	02/21/13 0822	KMF	1
Nitrobenzene-d5	64.7		% Rec.	120.	8270C	02/21/13 0822	KMF	1
2-Fluorobiphenyl	69.4		% Rec.	122.	8270C	02/21/13 0822	KMF	1
2,4,6-Tribromophenol	83.9		% Rec.	148.	8270C	02/21/13 0822	KMF	1
p-Terphenyl-d14	59.4		% Rec.	149.	8270C	02/21/13 0822	KMF	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: 02/27/13 10:43 Printed: 02/27/13 10:44

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Est. 1970

REPORT OF ANALYSIS

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

February 27,2013

ESC Sample # : L620870-02

Date Received : February 19, 2013
Description : Sludge Solids

Site ID :

Sample ID : FILTER PRESS BIOSOLIDS

Project # :

Collected By : Jesse Compton
Collection Date : 02/18/13 08:40

Parameter	W.Result	RDL	D.Result	RDL	Units	Method	Date
Total Solids	51.8	0.100	51.8	0.100	%	2540 G-2	02/27/13
Polychlorinated Biphenyls							
PCB 1016	BDL	0.17	BDL	0.33	mg/kg	8082	02/20/13
PCB 1221	BDL	0.17	BDL	0.33	mg/kg	8082	02/20/13
PCB 1232	BDL	0.17	BDL	0.33	mg/kg	8082	02/20/13
PCB 1242	BDL	0.17	BDL	0.33	mg/kg	8082	02/20/13
PCB 1248	BDL	0.17	BDL	0.33	mg/kg	8082	02/20/13
PCB 1254	BDL	0.17	BDL	0.33	mg/kg	8082	02/20/13
PCB 1260	BDL	0.17	BDL	0.33	mg/kg	8082	02/20/13
PCBs Surrogates							
Decachlorobiphenyl	66.9		66.9		% Rec.	8082	02/20/13
Tetrachloro-m-xylene	105.		105.		% Rec.	8082	02/20/13

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: 02/27/13 10:43 Printed: 02/27/13 10:44

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L620870-01	WG637642	SAMP	Pyridine	R2552059	J3
	WG637712	SAMP	Arsenic	R2553040	O
	WG637712	SAMP	Lead	R2553040	O
	WG637712	SAMP	Silver	R2553040	OJ6J3
L620870-02	WG637580	SAMP	PCB 1016	R2551299	O
	WG637580	SAMP	PCB 1221	R2551299	O
	WG637580	SAMP	PCB 1232	R2551299	O
	WG637580	SAMP	PCB 1242	R2551299	O
	WG637580	SAMP	PCB 1248	R2551299	O
	WG637580	SAMP	PCB 1254	R2551299	O
	WG637580	SAMP	PCB 1260	R2551299	O

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
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
02/27/13 at 10:44:07

TSR Signing Reports: 650

Sample: L620870-01 Account: MOCBENCTN Received: 02/19/13 09:00 Due Date: 02/28/13 00:00 RPT Date: 02/27/13 10:43

Sample: L620870-02 Account: MOCBENCTN Received: 02/19/13 09:00 Due Date: 02/28/13 00:00 RPT Date: 02/27/13 10:43

APPENDIX F
503 GRAB SAMPLES
FECAL COLIFORM ANALYSES
FOR
2013 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 (≥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)
01/01/13		
01/02/13	<1,000	<1,000
01/03/13	<1,000	<1,000
01/04/13	<1,000	<1,000
01/05/13		
01/06/13		
01/07/13	<1,000	<1,000
01/08/13	<1,000	<1,000
01/09/13	<1,000	<1,000
01/10/13	<1,000	<1,000
01/11/13		
01/12/13		
01/13/13		
01/14/13		
01/15/13		
01/16/13		
01/17/13		
01/18/13		
01/19/13		
01/20/13		
01/21/13		
01/22/13		
01/23/13		
01/24/13		
01/25/13		
01/26/13		
01/27/13		
01/28/13		
01/29/13		
01/30/13		
01/31/13		
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)
02/01/13		
02/02/13		
02/03/13		
02/04/13	<1,000	<1,000
02/05/13	<1,000	<1,000
02/06/13	<1,000	<1,000
02/07/13	<1,000	<1,000
02/08/13	<1,000	<1,000
02/09/13		
02/10/13		
02/11/13	<1,000	<1,000
02/12/13	<1,000	<1,000
02/13/13		
02/14/13		
02/15/13		
02/16/13		
02/17/13		
02/18/13		
02/19/13		
02/20/13		
02/21/13		
02/22/13		
02/23/13		
02/24/13		
02/25/13		
02/26/13		
02/27/13		
02/28/13		
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)
03/01/13	<1,000	<1,000
03/02/13		
03/03/13		
03/04/13	<1,000	<1,000
03/05/13	<1,000	<1,000
03/06/13	<1,000	<1,000
03/07/13	<1,000	<1,000
03/08/13	<1,000	<1,000
03/09/13		
03/10/13		
03/11/13	<1,000	<1,000
03/12/13		
03/13/13		
03/14/13		
03/15/13		
03/16/13		
03/17/13		
03/18/13		
03/19/13		
03/20/13		
03/21/13		
03/22/13		
03/23/13		
03/24/13		
03/25/13		
03/26/13		
03/27/13		
03/28/13		
03/29/13		
03/30/13		
03/31/13		
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)
04/01/13	<1,000	<1,000
04/02/13	<1,000	<1,000
04/03/13	<1,000	<1,000
04/04/13	<1,000	<1,000
04/05/13	<1,000	<1,000
04/06/13		
04/07/13		
04/08/13	<1,000	<1,000
04/09/13	<1,000	<1,000
04/10/13		
04/11/13		
04/12/13		
04/13/13		
04/14/13		
04/15/13		
04/16/13		
04/17/13		
04/18/13		
04/19/13		
04/20/13		
04/21/13		
04/22/13		
04/23/13		
04/24/13		
04/25/13		
04/26/13		
04/27/13		
04/28/13		
04/29/13		
04/30/13		
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)
05/01/13	<1,000	<1,000
05/02/13	<1,000	<1,000
05/03/13	<1,000	<1,000
05/04/13		
05/05/13		
05/06/13	<1,000	<1,000
05/07/13	<1,000	<1,000
05/08/13	<1,000	<1,000
05/09/13	<1,000	<1,000
05/10/13		
05/11/13		
05/12/13		
05/13/13		
05/14/13		
05/15/13		
05/16/13		
05/17/13		
05/18/13		
05/19/13		
05/20/13		
05/21/13		
05/22/13		
05/23/13		
05/24/13		
05/25/13		
05/26/13		
05/27/13		
05/28/13		
05/29/13		
05/30/13		
05/31/13		
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)
06/01/13		
06/02/13		
06/03/13	<1,000	<1,000
06/04/13	<1,000	<1,000
06/05/13	<1,000	<1,000
06/06/13	<1,000	<1,000
06/07/13	<1,000	<1,000
06/08/13		
06/09/13		
06/10/13	<1,000	<1,000
06/11/13	<1,000	<1,000
06/12/13		
06/13/13		
06/14/13		
06/15/13		
06/16/13		
06/17/13		
06/18/13		
06/19/13		
06/20/13		
06/21/13		
06/22/13		
06/23/13		
06/24/13		
06/25/13		
06/26/13		
06/27/13		
06/28/13		
06/29/13		
06/30/13		
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)
07/01/13	<1,000	<1,000
07/02/13	<1,000	<1,000
07/03/13	<1,000	<1,000
07/04/13		
07/05/13	<1,000	<1,000
07/06/13		
07/07/13		
07/08/13	<1,000	<1,000
07/09/13	<1,000	<1,000
07/10/13	<1,000	<1,000
07/11/13		
07/12/13		
07/13/13		
07/14/13		
07/15/13		
07/16/13		
07/17/13		
07/18/13		
07/19/13		
07/20/13		
07/21/13		
07/22/13		
07/23/13		
07/24/13		
07/25/13		
07/26/13		
07/27/13		
07/28/13		
07/29/13		
07/30/13		
07/31/13		
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)
08/01/13		
08/02/13	<1,000	<1,000
08/03/13		
08/04/13		
08/05/13	<1,000	<1,000
08/06/13	<1,000	<1,000
08/07/13	<1,000	<1,000
08/08/13	<1,000	<1,000
08/09/13	<1,000	<1,000
08/10/13		
08/11/13		
08/12/13		
08/13/13	<1,000	<1,000
08/14/13		
08/15/13		
08/16/13		
08/17/13		
08/18/13		
08/19/13		
08/20/13		
08/21/13		
08/22/13		
08/23/13		
08/24/13		
08/25/13		
08/26/13		
08/27/13		
08/28/13		
08/29/13		
08/30/13		
08/31/13		
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)
09/01/13		
09/02/13		
09/03/13	<1,000	<1,000
09/04/13	<1,000	<1,000
09/05/13	<1,000	<1,000
09/06/13	<1,000	<1,000
09/07/13		
09/08/13		
09/09/13	<1,000	<1,000
09/10/13	<1,000	<1,000
09/11/13	<1,000	<1,000
09/12/13		
09/13/13		
09/14/13		
09/15/13		
09/16/13		
09/17/13		
09/18/13		
09/19/13		
09/20/13		
09/21/13		
09/22/13		
09/23/13		
09/24/13		
09/25/13		
09/26/13		
09/27/13		
09/28/13		
09/29/13		
09/30/13		
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)
10/01/13	<1,000	<1,000
10/02/13	<1,000	<1,000
10/03/13	<1,000	<1,000
10/04/13	<1,000	<1,000
10/05/13		
10/06/13		
10/07/13	<1,000	
10/08/13	<1,000	
10/09/13	<1,000	
10/10/13		
10/11/13		
10/12/13		
10/13/13		
10/14/13		
10/15/13		<1,000
10/16/13		<1,000
10/17/13		<1,000
10/18/13		
10/19/13		
10/20/13		
10/21/13		
10/22/13		
10/23/13		
10/24/13		
10/25/13		
10/26/13		
10/27/13		
10/28/13		
10/29/13		
10/30/13		
10/31/13		
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)
11/01/13	<1,000	
11/02/13		
11/03/13		
11/04/13	<1,000	
11/05/13	<1,000	
11/06/13	<1,000	
11/07/13	<1,000	
11/08/13	<1,000	
11/09/13		
11/10/13		
11/11/13	<1,000	
11/12/13		
11/13/13		<1,000
11/14/13		<1,000
11/15/13		<1,000
11/16/13		
11/17/13		
11/18/13		
11/19/13		<1,000
11/20/13		<1,000
11/21/13		<1,000
11/22/13		<1,000
11/23/13		
11/24/13		
11/25/13		
11/26/13		
11/27/13		
11/28/13		
11/29/13		
11/30/13		
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)
12/01/13		
12/02/13	<1,000	
12/03/13	<1,000	
12/04/13	<1,000	
12/05/13	<1,000	
12/06/13	<1,000	
12/07/13		
12/08/13		
12/09/13	<1,000	
12/10/13	<1,000	<1,000
12/11/13		<1,000
12/12/13		<1,000
12/13/13		<1,000
12/14/13		
12/15/13		
12/16/13		
12/17/13		<1,000
12/18/13		<1,000
12/19/13		
12/20/13		<1,000
12/21/13		
12/22/13		
12/23/13		
12/24/13		
12/25/13		
12/26/13		
12/27/13		
12/28/13		
12/29/13		
12/30/13		
12/31/13		
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
2013 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
01/01/13						
01/02/13				12.3	12.2	12.4
01/03/13				12.1	11.9	12.4
01/04/13				12.2	12.1	12.1
01/05/13						
01/06/13						
01/07/13	12.1	11.9	12.3	12.2	12.2	12.3
01/08/13	12.5	12.4	12.5	12.5	12.4	12.5
01/09/13	12.1	11.9	12.6	11.9	11.9	12.6
01/10/13	12.4	12.5	12.3	12.5	12.6	12.3
01/11/13	12.2	12.2	12.4	12.3	12.4	12.3
01/12/13						
01/13/13						
01/14/13	12.2	12.3	12.4	12.5	12.0	12.2
01/15/13	12.3	12.4	12.1	12.4	12.2	12.2
01/16/13	12.3	12.3	12.5	12.4	12.3	12.5
01/17/13	12.2	12.2	12.3	12.1	12.1	12.2
01/18/13				12.2	12.1	12.2
01/19/13						
01/20/13						
01/21/13						
01/22/13				12.2	12.1	11.7
01/23/13				12.3	12.2	12.1
01/24/13				12.2	12.2	12.1
01/25/13				12.4	12.3	12.2
01/26/13						
01/27/13						
01/28/13				11.9	12.3	12.3
01/29/13				12.4	12.4	12.5
01/30/13				12.5	12.5	12.3
01/31/13				12.3	12.4	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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
01/01/13						
01/02/13						
01/03/13						
01/04/13						
01/05/13						
01/06/13						
01/07/13						
01/08/13						
01/09/13						
01/10/13						
01/11/13						
01/12/13						
01/13/13						
01/14/13						
01/15/13						
01/16/13						
01/17/13						
01/18/13						
01/19/13						
01/20/13						
01/21/13						
01/22/13						
01/23/13						
01/24/13						
01/25/13						
01/26/13						
01/27/13						
01/28/13						
01/29/13						
01/30/13						
01/31/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
01/01/13						
01/02/13						
01/03/13						
01/04/13						
01/05/13						
01/06/13						
01/07/13						
01/08/13						
01/09/13						
01/10/13						
01/11/13						
01/12/13						
01/13/13						
01/14/13						
01/15/13						
01/16/13						
01/17/13						
01/18/13						
01/19/13						
01/20/13						
01/21/13						
01/22/13						
01/23/13						
01/24/13						
01/25/13						
01/26/13						
01/27/13						
01/28/13						
01/29/13						
01/30/13						
01/31/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
01/01/13						
01/02/13						
01/03/13						
01/04/13						
01/05/13						
01/06/13						
01/07/13						
01/08/13						
01/09/13						
01/10/13						
01/11/13						
01/12/13						
01/13/13						
01/14/13						
01/15/13						
01/16/13						
01/17/13						
01/18/13						
01/19/13						
01/20/13						
01/21/13						
01/22/13						
01/23/13						
01/24/13						
01/25/13						
01/26/13						
01/27/13						
01/28/13						
01/29/13						
01/30/13						
01/31/13						

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
02/01/13				12.2	12.2	12.0
02/02/13						
02/03/13						
02/04/13				12.2	12.2	12.0
02/05/13				12.2	12.3	12.2
02/06/13				12.3	12.3	12.3
02/07/13				12.3	12.2	12.3
02/08/13				12.4	12.5	12.2
02/09/13						
02/10/13						
02/11/13				12.3	12.2	12.0
02/12/13	12.6	12.6	12.8	12.7	12.7	12.8
02/13/13				12.4	12.3	12.1
02/14/13				12.5	12.5	12.3
02/15/13				12.3	12.6	12.3
02/16/13						
02/17/13						
02/18/13				12.6	12.6	12.2
02/19/13				12.5	12.5	12.2
02/20/13				12.7	12.6	12.4
02/21/13				12.4	12.5	12.5
02/22/13				12.4	12.5	12.3
02/23/13						
02/24/13						
02/25/13				12.6	12.5	12.6
02/26/13				12.6	12.4	12.4
02/27/13				12.6	12.4	12.3
02/28/13				12.4	12.4	12.7

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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
02/01/13						
02/02/13						
02/03/13						
02/04/13						
02/05/13						
02/06/13						
02/07/13						
02/08/13						
02/09/13						
02/10/13						
02/11/13						
02/12/13						
02/13/13						
02/14/13						
02/15/13						
02/16/13						
02/17/13						
02/18/13						
02/19/13						
02/20/13						
02/21/13						
02/22/13						
02/23/13						
02/24/13						
02/25/13						
02/26/13						
02/27/13						
02/28/13						

OPS Database: Solids Handling

OPS Report Name: Lab FP Adjusted pH Report Presses 1 & 2

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
02/01/13						
02/02/13						
02/03/13						
02/04/13						
02/05/13						
02/06/13						
02/07/13						
02/08/13						
02/09/13						
02/10/13						
02/11/13						
02/12/13						
02/13/13						
02/14/13						
02/15/13						
02/16/13						
02/17/13						
02/18/13						
02/19/13						
02/20/13						
02/21/13						
02/22/13						
02/23/13						
02/24/13						
02/25/13						
02/26/13						
02/27/13						
02/28/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
02/01/13						
02/02/13						
02/03/13						
02/04/13						
02/05/13						
02/06/13						
02/07/13						
02/08/13						
02/09/13						
02/10/13						
02/11/13						
02/12/13						
02/13/13						
02/14/13						
02/15/13						
02/16/13						
02/17/13						
02/18/13						
02/19/13						
02/20/13						
02/21/13						
02/22/13						
02/23/13						
02/24/13						
02/25/13						
02/26/13						
02/27/13						
02/28/13						

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
03/01/13				12.5	12.5	12.3
03/02/13						
03/03/13						
03/04/13				12.3	12.6	12.4
03/05/13				12.3	12.5	12.2
03/06/13				12.6	12.6	12.2
03/07/13				12.4	12.4	12.3
03/08/13				12.5	12.4	12.3
03/09/13						
03/10/13						
03/11/13				12.3	12.5	12.3
03/12/13				12.5	12.3	12.2
03/13/13				12.5	12.5	12.2
03/14/13				12.5	12.5	12.1
03/15/13				12.5	12.7	12.3
03/16/13						
03/17/13						
03/18/13				12.5	12.5	12.5
03/19/13				12.4	12.3	12.4
03/20/13				12.6	12.5	12.2
03/21/13				12.4	12.4	12.3
03/22/13				12.6	12.5	12.3
03/23/13						
03/24/13						
03/25/13				12.6	12.5	12.4
03/26/13				12.4	12.5	12.4
03/27/13				12.1	12.0	12.0
03/28/13				12.4	12.3	11.7
03/29/13						
03/30/13						
03/31/13						

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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
03/01/13						
03/02/13						
03/03/13						
03/04/13				12.2	12.2	11.8
03/05/13				12.2	12.2	11.8
03/06/13				12.1	12.0	11.9
03/07/13				11.9	12.1	12.0
03/08/13						12.0
03/09/13						
03/10/13						
03/11/13						11.8
03/12/13						12.1
03/13/13						11.7
03/14/13				12.3	12.3	11.7
03/15/13						
03/16/13						
03/17/13						
03/18/13						
03/19/13						
03/20/13						
03/21/13						
03/22/13						
03/23/13						
03/24/13						
03/25/13				12.0	11.6	10.9
03/26/13				12.3	12.2	11.8
03/27/13				12.2	12.2	12.2
03/28/13	12.2	12.2	12.1	12.2	12.2	12.1
03/29/13						
03/30/13						
03/31/13						

OPS Database: Solids Handling

OPS Report Name: Lab FP Adjusted pH Report Presses 1 & 2

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
03/01/13						
03/02/13						
03/03/13						
03/04/13	12.3	12.1	11.6			
03/05/13	12.3	12.2	11.8			
03/06/13	12.2	12.1	11.8			
03/07/13	12.1	12.1	11.9			
03/08/13			12.1			
03/09/13						
03/10/13						
03/11/13			11.8			
03/12/13			12.0			
03/13/13			11.7			
03/14/13	12.2	12.3	11.9			
03/15/13						
03/16/13						
03/17/13						
03/18/13						
03/19/13						
03/20/13						
03/21/13						
03/22/13						
03/23/13						
03/24/13						
03/25/13	11.9	11.6	10.6			
03/26/13	12.2	12.1	12.0			
03/27/13	12.2	12.1	12.2			
03/28/13	12.3	12.2	12.1			
03/29/13						
03/30/13						
03/31/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
03/01/13						
03/02/13						
03/03/13						
03/04/13	12.2	12.3	11.7	12.2	12.1	11.6
03/05/13	12.3	12.2	11.5	12.2	12.1	11.9
03/06/13	12.2	12.2	12.2			
03/07/13	12.0	11.9	12.0			
03/08/13			12.1			
03/09/13						
03/10/13						
03/11/13			12.0			
03/12/13			12.0			
03/13/13			11.9			
03/14/13				12.3	12.3	12.0
03/15/13				12.2	12.2	12.0
03/16/13						
03/17/13						
03/18/13						
03/19/13						
03/20/13						
03/21/13						
03/22/13						
03/23/13						
03/24/13						
03/25/13	12.1	11.7	11.0	12.0	11.8	10.8
03/26/13	12.3	12.2	11.9	12.3	12.1	11.9
03/27/13	12.2	12.2	12.2	12.1	12.2	12.2
03/28/13	11.9	12.1	12.2	12.3	12.2	11.9
03/29/13						
03/30/13						
03/31/13						

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
04/01/13				12.5	12.2	12.4
04/02/13				12.1	12.1	12.4
04/03/13				12.1	12.1	12.2
04/04/13				12.6	12.6	12.3
04/05/13				12.2	12.1	12.4
04/06/13						
04/07/13						
04/08/13				12.5	12.5	12.5
04/09/13				12.4	12.6	12.4
04/10/13				12.4	12.5	12.5
04/11/13				12.4	12.5	12.5
04/12/13				12.6	12.5	12.5
04/13/13						
04/14/13						
04/15/13				12.3	12.2	12.4
04/16/13				12.2	12.2	12.1
04/17/13				12.2	12.1	11.9
04/18/13				12.2	12.2	12.5
04/19/13				12.2	12.2	12.3
04/20/13						
04/21/13						
04/22/13	12.4	12.5	12.5	12.3	12.4	12.4
04/23/13	12.4	12.4	12.5	12.3	12.3	12.3
04/24/13	12.3	12.4	12.4	12.6	12.2	12.3
04/25/13	12.4	12.4	12.5	12.3	12.3	12.5
04/26/13	12.4	12.7	12.5	12.5	12.6	12.5
04/27/13						
04/28/13						
04/29/13	12.0	12.4	12.3	12.6	12.5	12.4
04/30/13	12.1	12.0	12.4	12.7	12.6	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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
04/01/13				12.2	12.2	11.6
04/02/13				12.2	12.3	11.9
04/03/13	12.1	12.1	11.9	12.3	12.2	12.0
04/04/13	12.1	12.2	11.9	12.1	12.1	11.9
04/05/13	12.1	12.2	11.9	12.2	12.1	12.0
04/06/13						
04/07/13						
04/08/13	12.1	12.2	11.7	12.1	12.0	11.4
04/09/13	12.1	12.1	11.9	12.1	12.1	12.0
04/10/13	12.1	12.1	11.9	12.1	12.0	11.9
04/11/13				12.2	12.2	12.0
04/12/13	12.2	12.1	12.0	12.1	12.0	12.0
04/13/13						
04/14/13						
04/15/13	12.2	12.1	11.9	12.1	12.1	12.0
04/16/13	12.2	12.1	11.6	12.2	12.1	11.7
04/17/13	12.2	12.1	12.0			
04/18/13	12.1	12.0	12.0			
04/19/13						
04/20/13						
04/21/13						
04/22/13						
04/23/13						
04/24/13						
04/25/13						
04/26/13						
04/27/13						
04/28/13						
04/29/13						
04/30/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
04/01/13	12.1	12.2	11.1			
04/02/13	12.2	12.1	11.9			
04/03/13	12.2	12.1	12.0			
04/04/13	12.1	12.2	11.9			
04/05/13	12.1	12.1	11.9			
04/06/13						
04/07/13						
04/08/13	12.1	12.1	11.6			
04/09/13	12.2	12.1	12.1			
04/10/13	12.2	12.1	12.0			
04/11/13	12.2	12.2	12.0			
04/12/13	12.0	12.1	12.1			
04/13/13						
04/14/13						
04/15/13	12.1	12.1	12.0			
04/16/13	12.2	12.1	11.6			
04/17/13						
04/18/13	12.2	12.1	12.1			
04/19/13						
04/20/13						
04/21/13						
04/22/13						
04/23/13						
04/24/13						
04/25/13						
04/26/13						
04/27/13						
04/28/13						
04/29/13						
04/30/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
04/01/13	12.1	12.2	10.9	12.1	12.2	11.3
04/02/13	12.2	12.1	12.1	12.2	12.2	12.1
04/03/13	12.2	12.1	12.1	12.1	12.1	12.1
04/04/13	12.1	12.2	12.0	12.1	12.2	12.0
04/05/13	12.2	12.1	12.1	12.1	12.1	12.1
04/06/13						
04/07/13						
04/08/13	12.1	12.0	11.1	12.1	12.0	11.5
04/09/13	12.2	12.2	12.1	12.2	12.1	12.1
04/10/13	12.1	12.1	12.0	12.0	12.1	12.1
04/11/13	12.2	12.1	12.1	12.1	12.1	12.0
04/12/13	12.2	12.0	12.1	12.0	12.0	12.2
04/13/13						
04/14/13						
04/15/13	12.1	12.1	12.1	12.1	12.1	12.1
04/16/13	12.1	12.1	11.7	12.1	12.1	11.6
04/17/13	12.2	12.1	12.0	12.2	12.1	12.1
04/18/13	12.2	12.1	12.1	12.2	12.1	12.0
04/19/13						
04/20/13						
04/21/13						
04/22/13						
04/23/13						
04/24/13						
04/25/13						
04/26/13						
04/27/13						
04/28/13						
04/29/13						
04/30/13						

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
05/01/13				12.9	12.8	12.6
05/02/13				12.7	12.5	12.5
05/03/13				13.0	13.0	12.6
05/04/13						
05/05/13						
05/06/13				12.7	12.5	12.4
05/07/13				12.1	12.6	12.6
05/08/13	12.7	12.7	12.5			
05/09/13	12.6	12.6	12.5			
05/10/13	12.6	12.5	12.5			
05/11/13						
05/12/13						
05/13/13				12.6	12.7	12.5
05/14/13				12.6	12.5	12.5
05/15/13				12.4	12.6	12.5
05/16/13				12.4	12.6	12.4
05/17/13				12.6	12.7	12.2
05/18/13						
05/19/13						
05/20/13				12.5	12.5	12.2
05/21/13				12.6	12.6	12.3
05/22/13				12.6	12.7	12.4
05/23/13				12.7	12.7	12.4
05/24/13				12.6	12.6	12.4
05/25/13						
05/26/13						
05/27/13						
05/28/13				12.4	12.2	12.7
05/29/13				12.4	12.4	12.2
05/30/13				12.3	12.4	12.4
05/31/13				12.2	12.4	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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
05/01/13						
05/02/13						
05/03/13						
05/04/13						
05/05/13						
05/06/13	12.1	11.9	10.9	12.2	12.1	11.5
05/07/13	12.3	12.3	12.0	12.3	12.2	12.0
05/08/13	12.0	12.1	12.1	12.2	12.1	12.0
05/09/13	12.1	12.0	11.9	12.0	12.0	11.9
05/10/13	12.3	12.3	12.1	12.2	12.1	11.9
05/11/13						
05/12/13						
05/13/13	12.4	12.4	11.8	12.3	12.3	11.9
05/14/13	12.4	12.3	12.0	12.3	12.2	12.0
05/15/13	12.1	12.1	11.9	12.1	12.1	12.0
05/16/13				12.3	12.4	11.8
05/17/13				12.4	12.4	11.9
05/18/13						
05/19/13						
05/20/13				12.3	12.3	11.9
05/21/13				12.3	12.1	11.9
05/22/13	12.3	12.3	11.8			
05/23/13	12.6	12.4	11.7			
05/24/13						
05/25/13						
05/26/13						
05/27/13						
05/28/13	12.3	12.4	11.9	12.2	12.0	12.0
05/29/13	12.4	12.3	11.9	12.2	12.2	11.9
05/30/13	12.3	12.3	11.9	12.3	12.2	12.0
05/31/13	12.2	12.3	12.0			

OPS Database: Solids Handling

OPS Report Name: Lab FP Adjusted pH Report Presses 1 & 2

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
05/01/13						
05/02/13						
05/03/13						
05/04/13						
05/05/13						
05/06/13	12.2	12.1	11.4			
05/07/13	12.2	12.2	12.1			
05/08/13	12.1	12.0	12.1			
05/09/13	12.3	12.2	12.0			
05/10/13	12.3	12.1	11.9			
05/11/13						
05/12/13						
05/13/13	12.4	12.1	12.0			
05/14/13	12.3	12.0	12.1			
05/15/13	12.1	12.0	12.0	12.1	11.9	12.0
05/16/13	12.3	12.3	11.8	12.4	12.4	11.9
05/17/13	12.4	12.4	11.8	12.2	12.4	11.8
05/18/13						
05/19/13						
05/20/13	12.2	12.1	12.0			
05/21/13	12.2	12.0	12.1			
05/22/13	12.4	12.3	12.0	12.4	12.4	12.0
05/23/13	12.5	12.0	11.8	12.2	12.3	11.8
05/24/13						
05/25/13						
05/26/13						
05/27/13						
05/28/13	12.2	12.0	11.9			
05/29/13	12.3	12.2	12.0			
05/30/13	12.4	12.2	11.9			
05/31/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
05/01/13						
05/02/13						
05/03/13						
05/04/13						
05/05/13						
05/06/13						
05/07/13						
05/08/13						
05/09/13						
05/10/13						
05/11/13						
05/12/13						
05/13/13						
05/14/13						
05/15/13	12.1	12.0	12.0	12.1	12.0	12.0
05/16/13	12.3	12.3	11.9	12.5	12.4	11.8
05/17/13	12.4	12.3	11.9			
05/18/13						
05/19/13						
05/20/13	12.3	12.3	12.0	12.3	12.3	11.9
05/21/13	12.3	12.1	12.0	12.2	12.0	12.0
05/22/13						
05/23/13				12.4	12.3	11.8
05/24/13						
05/25/13						
05/26/13						
05/27/13						
05/28/13	12.3	12.0	12.0	12.2	12.0	12.1
05/29/13	12.4	12.3	12.0	12.4	12.3	12.0
05/30/13	12.4	12.3	11.8	12.3	12.1	11.8
05/31/13	12.4	12.3	12.1			

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
06/01/13						
06/02/13						
06/03/13				12.5	12.5	12.7
06/04/13				12.5	12.6	12.1
06/05/13				12.5	12.4	12.4
06/06/13				12.5	12.5	12.2
06/07/13				12.4	12.3	12.3
06/08/13						
06/09/13						
06/10/13				12.2	12.2	11.6
06/11/13				12.4	12.5	12.2
06/12/13				12.3	12.4	12.4
06/13/13				12.4	12.7	12.5
06/14/13						12.4
06/15/13						
06/16/13						
06/17/13				12.4	12.3	12.4
06/18/13				12.1	12.0	12.1
06/19/13				12.2	12.2	12.4
06/20/13				12.4	12.3	12.3
06/21/13				12.3	12.2	12.3
06/22/13						
06/23/13						
06/24/13				12.4	12.5	12.4
06/25/13				12.4	12.6	12.2
06/26/13				12.2	12.3	12.4
06/27/13				12.4	12.5	12.3
06/28/13				12.6	12.5	12.0
06/29/13						
06/30/13						

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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
06/01/13						
06/02/13						
06/03/13	12.5	12.4	12.2	12.3	12.2	12.2
06/04/13	12.2	12.1	12.0	12.2	12.1	12.0
06/05/13				12.3	12.2	12.1
06/06/13				12.2	12.2	11.9
06/07/13				12.3	12.4	11.9
06/08/13						
06/09/13						
06/10/13				12.2	12.1	12.0
06/11/13				12.2	12.2	12.2
06/12/13				12.2	12.3	12.0
06/13/13				12.1	12.1	12.0
06/14/13				12.3	12.2	12.1
06/15/13						
06/16/13						
06/17/13				12.0	12.0	11.7
06/18/13				12.3	12.2	12.4
06/19/13				12.2	12.2	11.9
06/20/13				12.3	12.3	12.0
06/21/13	12.2	12.3	12.1			
06/22/13						
06/23/13						
06/24/13	12.5	12.3	11.9			
06/25/13	12.1	12.3	12.0	12.4	12.4	12.1
06/26/13	12.3	12.2	11.9	12.3	12.2	11.8
06/27/13	12.3	12.2	11.9	12.2	12.1	11.8
06/28/13						
06/29/13						
06/30/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
06/01/13						
06/02/13						
06/03/13						
06/04/13	12.3	12.2	11.9			
06/05/13	12.3	12.2	12.1			
06/06/13	12.2	12.2	12.0			
06/07/13	12.4	12.4	12.0			
06/08/13						
06/09/13						
06/10/13	12.3	12.2	12.0			
06/11/13	12.3	12.2	12.2			
06/12/13	12.3	12.3	12.1			
06/13/13	12.3	12.2	11.9			
06/14/13	12.4	12.2	12.0			
06/15/13						
06/16/13						
06/17/13	12.3	12.2	12.0			
06/18/13	12.2	12.2	12.4			
06/19/13	12.2	12.2	11.8			
06/20/13	12.3	12.3	11.9			
06/21/13				12.3	12.3	12.1
06/22/13						
06/23/13						
06/24/13	12.5	12.2	12.0	12.4	12.3	12.0
06/25/13						
06/26/13						
06/27/13						
06/28/13						
06/29/13						
06/30/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
06/01/13						
06/02/13						
06/03/13	12.4	12.3	12.3			
06/04/13	12.3	12.2	12.1	12.2	12.1	12.0
06/05/13				12.2	12.1	11.9
06/06/13				12.2	12.3	12.1
06/07/13				12.4	12.4	12.0
06/08/13						
06/09/13						
06/10/13				12.3	12.2	12.0
06/11/13				12.2	12.2	12.2
06/12/13				12.3	12.3	12.1
06/13/13	12.1	12.2	11.9	12.2	12.0	12.0
06/14/13	12.4	12.1	12.0	12.3	12.3	12.1
06/15/13						
06/16/13						
06/17/13	12.2	12.2	12.0	12.3	12.2	12.0
06/18/13	12.3	12.2	12.4	12.2	12.2	12.4
06/19/13	12.2	12.2	12.0	12.2	12.2	12.1
06/20/13	12.3	12.3	12.1			
06/21/13				12.2	12.3	12.2
06/22/13						
06/23/13						
06/24/13				12.4	12.0	12.0
06/25/13	12.4	12.3	12.1	12.4	12.3	12.1
06/26/13	12.2	12.2	12.0	12.3	12.2	11.8
06/27/13	12.3	12.2	11.9	12.2	12.1	12.0
06/28/13						
06/29/13						
06/30/13						

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
07/01/13				12.2	12.4	12.3
07/02/13				12.3	12.4	12.4
07/03/13				12.4	12.4	12.4
07/04/13				12.3	12.4	12.3
07/05/13				12.3	12.4	12.3
07/06/13						
07/07/13						
07/08/13	12.4	12.2	12.5	12.2	12.2	12.5
07/09/13	12.4	12.4	12.3	12.2	12.2	12.2
07/10/13	12.3	12.3	12.3	12.3	12.3	12.2
07/11/13	12.4	12.5	12.2	12.4	12.4	12.3
07/12/13				12.4	12.3	12.6
07/13/13						
07/14/13						
07/15/13	12.3	12.5	12.4	12.2	12.2	12.4
07/16/13	12.2	12.1	12.3	12.2	12.2	12.3
07/17/13				12.1	12.1	12.3
07/18/13				12.1	12.1	12.2
07/19/13				12.0	12.0	12.2
07/20/13						
07/21/13						
07/22/13				12.4	12.2	12.6
07/23/13				12.2	12.4	12.2
07/24/13				12.2	12.3	12.1
07/25/13				12.4	12.2	12.3
07/26/13				12.4	12.5	12.2
07/27/13						
07/28/13						
07/29/13				12.3	12.3	12.4
07/30/13				12.3	12.3	12.3
07/31/13				12.2	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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
07/01/13	12.2	12.1	11.8			
07/02/13	12.2	12.1	11.9			
07/03/13	12.2	12.2	12.0			
07/04/13						
07/05/13	12.3	12.1	12.0	12.1	12.0	11.9
07/06/13						
07/07/13						
07/08/13						
07/09/13						
07/10/13						
07/11/13						
07/12/13						
07/13/13						
07/14/13						
07/15/13						
07/16/13						
07/17/13				12.1	12.0	12.1
07/18/13				12.1	12.1	11.9
07/19/13				12.1	12.1	12.1
07/20/13						
07/21/13						
07/22/13						
07/23/13				12.2	12.1	11.9
07/24/13	12.1	12.0	12.0	12.2	12.0	11.9
07/25/13						
07/26/13	12.2	12.0	11.9	12.1	12.1	11.9
07/27/13						
07/28/13						
07/29/13	12.2	12.0	11.7	12.1	12.1	11.9
07/30/13	12.2	12.1	12.2	12.1	12.1	12.1
07/31/13	12.1	12.1	12.2	12.1	12.1	12.2

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
07/01/13	12.2	12.0	11.9	12.3	12.0	11.9
07/02/13	12.1	12.0	12.0	12.1	12.0	11.9
07/03/13				12.2	12.2	12.0
07/04/13						
07/05/13	12.0	12.1	12.0			
07/06/13						
07/07/13						
07/08/13						
07/09/13						
07/10/13						
07/11/13						
07/12/13						
07/13/13						
07/14/13						
07/15/13						
07/16/13						
07/17/13	12.1	12.1	12.0	12.1	12.0	12.1
07/18/13	12.1	12.0	12.1	12.1	12.1	12.1
07/19/13	12.1	12.1	12.2	12.1	12.1	12.1
07/20/13						
07/21/13						
07/22/13						
07/23/13	12.1	12.0	11.9			
07/24/13	12.2	12.1	12.0			
07/25/13	12.1	12.1	11.8			
07/26/13						
07/27/13						
07/28/13						
07/29/13						
07/30/13	12.1	12.1	12.2			
07/31/13	12.2	12.0	12.2			

OPS Database: Solids Handling

OPS Report Name: Lab FP Adjusted pH Report Presses 3 & 5

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
07/01/13	12.2	12.1	11.8			
07/02/13				12.1	12.0	11.9
07/03/13						
07/04/13						
07/05/13	12.1	12.0	12.0	12.1	12.0	12.0
07/06/13						
07/07/13						
07/08/13						
07/09/13						
07/10/13						
07/11/13						
07/12/13						
07/13/13						
07/14/13						
07/15/13						
07/16/13						
07/17/13	12.1	12.1	12.0			
07/18/13	12.1	12.1	12.0			
07/19/13	12.2	12.1	12.1			
07/20/13						
07/21/13						
07/22/13						
07/23/13	12.2	12.0	11.9	12.1	12.1	11.9
07/24/13	12.2	12.0	12.0	12.1	12.0	12.0
07/25/13	12.1	12.1	11.6	12.1	12.1	11.7
07/26/13	12.1	12.0	12.0			
07/27/13						
07/28/13						
07/29/13	12.2	12.0	11.7	12.1	12.0	12.0
07/30/13	12.1	12.1	12.1	12.1	12.1	12.1
07/31/13	12.2	12.1	12.2	12.2	12.1	12.1

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
08/01/13				12.2	12.1	12.3
08/02/13				12.3	12.4	12.1
08/03/13						
08/04/13						
08/05/13				12.5	12.4	12.3
08/06/13				12.5	12.5	12.1
08/07/13				12.4	12.5	12.2
08/08/13				12.4	12.5	12.3
08/09/13				12.4	12.4	12.1
08/10/13						
08/11/13						
08/12/13				12.3	12.3	12.0
08/13/13				12.3	12.2	12.2
08/14/13				12.1	12.1	12.2
08/15/13				12.0	12.3	12.3
08/16/13				12.2	12.4	12.3
08/17/13						
08/18/13						
08/19/13	12.2	12.3	12.1	12.3	12.3	12.0
08/20/13	12.4	12.4	12.1	12.4	12.3	11.9
08/21/13	12.4	12.4	12.2	12.4	12.3	12.0
08/22/13	12.4	12.4	12.2	12.4	12.4	12.0
08/23/13	12.3	12.3	12.1	12.4	12.3	12.0
08/24/13						
08/25/13						
08/26/13				12.5	12.4	12.1
08/27/13				12.5	12.5	12.0
08/28/13				12.5	12.3	12.0
08/29/13				12.5	12.5	12.2
08/30/13				12.4	12.4	12.1
08/31/13						

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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
08/01/13	12.1	12.1	11.8	12.1	12.1	11.8
08/02/13	12.1	12.1	11.9	12.1	12.0	11.9
08/03/13						
08/04/13						
08/05/13	12.2	12.0	11.9	12.1	12.1	11.9
08/06/13	12.1	12.0	11.8	12.1	12.0	11.8
08/07/13	12.1	12.1	12.0	12.2	12.0	11.8
08/08/13	12.2	12.1	11.8	12.2	12.1	11.8
08/09/13	12.1	12.1	12.0	12.2	12.1	11.8
08/10/13						
08/11/13						
08/12/13						
08/13/13						
08/14/13						
08/15/13						
08/16/13						
08/17/13						
08/18/13						
08/19/13						
08/20/13						
08/21/13						
08/22/13						
08/23/13						
08/24/13						
08/25/13						
08/26/13				12.2	12.2	11.3
08/27/13				12.1	12.0	12.1
08/28/13				12.4	12.4	11.8
08/29/13				12.4	12.3	12.0
08/30/13				12.5	12.5	12.2
08/31/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
08/01/13	12.1	12.0	12.4			
08/02/13	12.1	12.0	12.1			
08/03/13						
08/04/13						
08/05/13	12.0	12.1	11.8			
08/06/13	12.1	12.1	11.9			
08/07/13				12.2	12.1	11.7
08/08/13				12.2	12.1	11.7
08/09/13				12.1	12.0	11.9
08/10/13						
08/11/13						
08/12/13						
08/13/13						
08/14/13						
08/15/13						
08/16/13						
08/17/13						
08/18/13						
08/19/13						
08/20/13						
08/21/13						
08/22/13						
08/23/13						
08/24/13						
08/25/13						
08/26/13	12.1	12.1	10.9			
08/27/13	12.1	12.3	12.1			
08/28/13	12.4	12.3	12.1			
08/29/13	12.2	12.2	12.0			
08/30/13						
08/31/13						

OPS Database: Solids Handling

OPS Report Name: Lab FP Adjusted pH Report Presses 3 & 5

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
08/01/13	12.1	12.1	11.9	12.1	12.2	12.5
08/02/13	12.1	12.1	12.0	12.1	12.1	12.0
08/03/13						
08/04/13						
08/05/13	12.2	12.0	11.8	12.1	12.0	11.9
08/06/13	12.1	12.1	11.9	12.1	12.0	12.1
08/07/13	12.1	12.0	11.7	12.2	12.1	11.7
08/08/13	12.2	12.1	11.7	12.1	12.0	11.8
08/09/13	12.2	12.1	11.9	12.2	12.1	12.0
08/10/13						
08/11/13						
08/12/13						
08/13/13						
08/14/13						
08/15/13						
08/16/13						
08/17/13						
08/18/13						
08/19/13						
08/20/13						
08/21/13						
08/22/13						
08/23/13						
08/24/13						
08/25/13						
08/26/13	12.2	12.1	11.0	12.1	12.0	10.8
08/27/13	12.1	12.0	12.1	12.3	12.3	12.1
08/28/13	12.4	12.4	12.0	12.3	12.4	12.0
08/29/13	12.3	12.4	12.1	12.2	12.3	12.1
08/30/13	12.4	12.4	12.0			
08/31/13						

OPS Database: Solids Handling

OPS Report Name: Lab FP Adjusted pH Report Presses 6 & 7

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
09/01/13						
09/02/13						
09/03/13				12.4	12.3	12.1
09/04/13	12.3	12.4	12.3	12.5	12.4	12.2
09/05/13	12.5	12.5	12.3	12.3	12.4	12.1
09/06/13	12.4	12.4	12.4			
09/07/13	12.2	12.3	12.3			
09/08/13						
09/09/13	12.6	12.5	12.2			
09/10/13	12.5	12.6	12.5			
09/11/13	12.5	12.6	12.1			
09/12/13	12.6	12.6	12.5			
09/13/13	12.4	12.5	12.4			
09/14/13	12.5	12.6	12.3			
09/15/13						
09/16/13	12.7	12.6	12.2	12.6	12.6	12.3
09/17/13	12.4	12.6	11.9	12.6	12.6	11.9
09/18/13	12.7	12.7	12.5	12.6	12.5	12.5
09/19/13				12.5	12.5	12.4
09/20/13				12.7	12.6	12.2
09/21/13						
09/22/13						
09/23/13				12.3	12.6	12.0
09/24/13				12.4	12.4	11.9
09/25/13				12.3	12.4	12.2
09/26/13				12.4	12.5	12.1
09/27/13				12.2	12.4	12.0
09/28/13						
09/29/13						
09/30/13	12.5	12.4	12.1	12.5	12.4	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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
09/01/13						
09/02/13						
09/03/13						
09/04/13						
09/05/13						
09/06/13						
09/07/13						
09/08/13						
09/09/13	12.3	12.2	11.6			
09/10/13	12.4	12.2	12.0			
09/11/13	12.3	12.4	11.9			
09/12/13	12.4	12.2	11.8	12.4	12.3	11.9
09/13/13	12.3	12.3	11.8	12.4	12.2	11.9
09/14/13						
09/15/13						
09/16/13						
09/17/13						
09/18/13						
09/19/13						
09/20/13						
09/21/13						
09/22/13						
09/23/13						
09/24/13	12.3	12.0	11.7	12.3	12.3	11.8
09/25/13	12.4	12.3	11.8	12.4	12.2	11.7
09/26/13	12.3	12.2	11.8	12.2	12.1	11.8
09/27/13						
09/28/13						
09/29/13						
09/30/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
09/01/13						
09/02/13						
09/03/13						
09/04/13						
09/05/13						
09/06/13						
09/07/13						
09/08/13						
09/09/13	12.3	12.2	11.4	12.3	12.2	11.1
09/10/13	12.4	12.2	11.8	12.4	12.3	11.8
09/11/13	12.5	12.3	11.8	12.5	12.3	11.9
09/12/13	12.4	12.5	11.9	12.4	12.3	11.9
09/13/13	12.4	12.2	11.9	12.4	12.2	11.9
09/14/13						
09/15/13						
09/16/13						
09/17/13						
09/18/13						
09/19/13						
09/20/13						
09/21/13						
09/22/13						
09/23/13						
09/24/13	12.3	12.3	11.7	12.3	12.3	11.7
09/25/13	12.3	12.1	11.7	12.4	12.2	11.7
09/26/13	12.2	12.2	11.8	12.2	12.1	11.7
09/27/13						
09/28/13						
09/29/13						
09/30/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
09/01/13						
09/02/13						
09/03/13						
09/04/13						
09/05/13						
09/06/13						
09/07/13						
09/08/13						
09/09/13				12.3	12.2	11.3
09/10/13				12.3	12.2	11.9
09/11/13				12.4	12.2	11.9
09/12/13				12.4	12.4	12.0
09/13/13				12.4	12.2	12.0
09/14/13						
09/15/13						
09/16/13						
09/17/13						
09/18/13						
09/19/13						
09/20/13						
09/21/13						
09/22/13						
09/23/13						
09/24/13						
09/25/13						
09/26/13						
09/27/13						
09/28/13						
09/29/13						
09/30/13						

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
10/01/13	12.5	12.4	12.3	12.4	12.4	12.2
10/02/13	12.4	12.4	12.1	12.4	12.4	12.2
10/03/13	12.4	12.3	12.3	12.4	12.4	12.5
10/04/13	12.4	12.4	12.3	12.3	12.4	12.3
10/05/13						
10/06/13						
10/07/13	12.4	12.3	12.2	12.5	12.4	12.4
10/08/13	12.3	12.3	12.2	12.3	12.3	12.1
10/09/13	12.4	12.3	12.3	12.4	12.3	12.3
10/10/13	12.3	12.3	12.3	12.3	12.3	12.3
10/11/13	12.3	12.2	12.1	12.5	12.2	12.2
10/12/13						
10/13/13						
10/14/13				12.3	12.3	12.1
10/15/13				12.2	12.3	12.0
10/16/13				12.4	12.2	12.0
10/17/13				12.2	12.2	11.9
10/18/13				12.1	12.2	12.2
10/19/13						
10/20/13						
10/21/13				12.1	12.1	12.2
10/22/13				12.1	12.1	12.1
10/23/13				12.1	12.2	11.9
10/24/13				12.1	12.1	12.1
10/25/13				12.1	12.1	11.9
10/26/13						
10/27/13						
10/28/13	12.3	12.3	12.1	12.1	12.1	12.2
10/29/13	12.3	12.3	12.1	12.2	12.1	12.0
10/30/13	12.3	12.3	12.1	12.2	12.2	12.1
10/31/13	12.3	12.3	12.2	12.2	12.2	12.0

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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
10/01/13						
10/02/13						
10/03/13						
10/04/13						
10/05/13						
10/06/13						
10/07/13						
10/08/13						
10/09/13						
10/10/13						
10/11/13						
10/12/13						
10/13/13						
10/14/13				12.1	12.1	11.8
10/15/13				12.5	12.3	11.8
10/16/13				12.2	12.2	11.8
10/17/13	12.3	12.2	11.7			
10/18/13						
10/19/13						
10/20/13						
10/21/13				12.3	12.2	11.8
10/22/13				12.3	12.3	11.8
10/23/13				12.3	12.3	12.0
10/24/13				12.4	12.3	12.0
10/25/13						
10/26/13						
10/27/13						
10/28/13						
10/29/13						
10/30/13						
10/31/13						

OPS Database: Solids Handling

OPS Report Name: Lab FP Adjusted pH Report Presses 1 & 2

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
10/01/13						
10/02/13						
10/03/13						
10/04/13						
10/05/13						
10/06/13						
10/07/13						
10/08/13						
10/09/13						
10/10/13						
10/11/13						
10/12/13						
10/13/13						
10/14/13	12.1	12.0	11.8	12.2	12.0	11.8
10/15/13	12.3	12.2	11.8	12.3	12.2	11.7
10/16/13	12.1	12.2	11.7			
10/17/13	12.2	12.2	11.8	12.2	12.2	11.9
10/18/13	12.3	12.2	11.8			
10/19/13						
10/20/13						
10/21/13	12.3	12.2	11.7			
10/22/13	12.3	12.2	11.6			
10/23/13						
10/24/13						
10/25/13						
10/26/13						
10/27/13						
10/28/13						
10/29/13						
10/30/13						
10/31/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
10/01/13						
10/02/13						
10/03/13						
10/04/13						
10/05/13						
10/06/13						
10/07/13						
10/08/13						
10/09/13						
10/10/13						
10/11/13						
10/12/13						
10/13/13						
10/14/13	12.1	12.0	11.7			
10/15/13	12.3	12.2	11.7			
10/16/13	12.3	12.3	11.8			
10/17/13	12.2	12.2	11.9			
10/18/13				12.3	12.2	11.7
10/19/13						
10/20/13						
10/21/13	12.3	12.2	11.7	12.4	12.2	11.7
10/22/13	12.4	12.3	11.7	12.3	12.2	11.6
10/23/13						
10/24/13						
10/25/13						
10/26/13						
10/27/13						
10/28/13						
10/29/13						
10/30/13						
10/31/13						

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
11/01/13				12.1	12.1	11.8
11/02/13						
11/03/13						
11/04/13	12.2	12.2	11.9	12.3	12.3	12.2
11/05/13	12.3	12.1	12.0	12.4	12.2	12.0
11/06/13	12.3	12.1	12.0	12.3	12.2	11.9
11/07/13	12.2	12.2	12.0	12.3	12.2	12.0
11/08/13	12.3	12.3	11.7	12.2	12.2	11.7
11/09/13						
11/10/13						
11/11/13				12.1	12.0	11.9
11/12/13				12.3	12.3	11.9
11/13/13				12.4	12.3	12.0
11/14/13				12.1	12.4	12.0
11/15/13				12.3	12.4	12.1
11/16/13						
11/17/13						
11/18/13				12.4	12.3	11.9
11/19/13				12.4	12.3	11.9
11/20/13				12.3	12.3	12.1
11/21/13				12.4	12.4	12.1
11/22/13				12.4	12.3	11.7
11/23/13						
11/24/13						
11/25/13	12.4	12.4	11.8	12.3	12.5	11.8
11/26/13	12.3	12.3	12.0	12.2	12.1	11.9
11/27/13	12.2	12.3	11.9	12.3	12.3	12.0
11/28/13				12.1	12.3	12.0
11/29/13						
11/30/13						

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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
11/01/13						
11/02/13						
11/03/13						
11/04/13						
11/05/13						
11/06/13						
11/07/13						
11/08/13						
11/09/13						
11/10/13						
11/11/13				12.4	12.4	11.7
11/12/13				12.2	12.3	11.7
11/13/13				12.2	12.3	11.8
11/14/13				12.3	12.3	11.9
11/15/13				12.3	12.3	11.8
11/16/13						
11/17/13						
11/18/13	12.3	12.2	11.8	12.2	12.2	11.7
11/19/13	12.2	12.2	11.8	12.3	12.1	11.8
11/20/13	12.2	12.2	11.8	12.2	12.1	11.7
11/21/13	12.2	12.1	11.7	12.3	12.1	11.7
11/22/13	12.2	12.4	11.6	12.2	12.1	11.7
11/23/13						
11/24/13						
11/25/13						
11/26/13						
11/27/13						
11/28/13						
11/29/13						
11/30/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
11/01/13						
11/02/13						
11/03/13						
11/04/13						
11/05/13						
11/06/13						
11/07/13						
11/08/13						
11/09/13						
11/10/13						
11/11/13	12.4	12.3	11.7			
11/12/13	12.2	12.3	11.7			
11/13/13	12.2	12.3	11.7			
11/14/13	12.3	12.3	11.8			
11/15/13						
11/16/13						
11/17/13						
11/18/13				12.2	12.2	11.7
11/19/13				12.2	12.1	11.7
11/20/13				12.2	12.1	11.7
11/21/13				12.2	12.1	11.6
11/22/13				12.2	12.1	11.7
11/23/13						
11/24/13						
11/25/13						
11/26/13						
11/27/13						
11/28/13						
11/29/13						
11/30/13						

OPS Database: Solids Handling

OPS Report Name: Lab FP Adjusted pH Report Presses 3 & 5

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
11/01/13						
11/02/13						
11/03/13						
11/04/13						
11/05/13						
11/06/13						
11/07/13						
11/08/13						
11/09/13						
11/10/13						
11/11/13	12.3	12.3	11.7	12.4	12.3	11.6
11/12/13	12.3	12.2	11.6	12.3	12.3	11.6
11/13/13	12.3	12.3	11.6	12.3	12.3	11.6
11/14/13	12.3	12.3	11.7	12.2	12.3	11.6
11/15/13						
11/16/13						
11/17/13						
11/18/13	12.2	12.2	11.6			
11/19/13	12.2	12.1	11.6			
11/20/13	12.2	12.2	11.7			
11/21/13	12.2	12.1	11.7			
11/22/13	12.2	12.1	11.9			
11/23/13						
11/24/13						
11/25/13						
11/26/13						
11/27/13						
11/28/13						
11/29/13						
11/30/13						

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
12/01/13						
12/02/13	12.3	12.1	12.0	12.1	12.0	11.9
12/03/13	12.3	12.1	12.1	12.3	12.2	12.2
12/04/13	12.2	12.2	12.0	12.1	12.0	11.9
12/05/13	12.3	12.1	12.0	12.2	12.0	12.0
12/06/13				12.1	12.2	11.9
12/07/13						
12/08/13						
12/09/13				12.3	12.3	12.0
12/10/13				12.2	12.2	12.0
12/11/13				12.4	12.3	11.9
12/12/13				12.3	12.2	11.9
12/13/13				12.4	12.4	12.2
12/14/13						
12/15/13						
12/16/13				12.3	12.3	11.9
12/17/13				12.5	12.5	11.9
12/18/13				12.5	12.5	11.7
12/19/13				12.3	12.2	11.9
12/20/13				12.3	12.2	11.8
12/21/13						
12/22/13						
12/23/13	12.2	12.2	11.9	12.4	12.3	11.9
12/24/13	12.3	12.2	12.0	12.3	12.4	12.0
12/25/13						
12/26/13				12.3	12.4	12.1
12/27/13				12.4	12.3	11.7
12/28/13						
12/29/13						
12/30/13	12.4	12.3	11.9	12.5	12.4	12.0
12/31/13	12.4	12.4	12.0	12.5	12.5	11.9

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

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #1			Press #2		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
12/01/13						
12/02/13						
12/03/13						
12/04/13						
12/05/13						
12/06/13						
12/07/13						
12/08/13						
12/09/13						
12/10/13	12.2	12.2	11.9			
12/11/13				12.3	12.2	11.6
12/12/13	12.4	12.3	11.7	12.3	12.1	11.8
12/13/13	12.3	12.3	11.8	12.2	12.3	11.6
12/14/13						
12/15/13						
12/16/13						
12/17/13	12.2	12.1	11.7	12.2	12.1	11.6
12/18/13	12.3	12.1	11.7	12.2	12.1	11.6
12/19/13	12.2	12.1	11.7	12.2	12.1	11.7
12/20/13				12.1	12.1	11.7
12/21/13						
12/22/13						
12/23/13						
12/24/13						
12/25/13						
12/26/13						
12/27/13						
12/28/13						
12/29/13						
12/30/13						
12/31/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #3			Press #5		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
12/01/13						
12/02/13						
12/03/13						
12/04/13						
12/05/13						
12/06/13						
12/07/13						
12/08/13						
12/09/13						
12/10/13	12.2	12.0	11.8			
12/11/13	12.3	12.3	11.6			
12/12/13	12.3	12.3	11.6			
12/13/13	12.3	12.3	11.7			
12/14/13						
12/15/13						
12/16/13						
12/17/13	12.3	12.1	11.6			
12/18/13	12.2	12.0	11.7			
12/19/13	12.2	12.1	11.7	12.2	12.3	11.7
12/20/13						
12/21/13						
12/22/13						
12/23/13						
12/24/13						
12/25/13						
12/26/13						
12/27/13						
12/28/13						
12/29/13						
12/30/13						
12/31/13						

MOCCASIN BEND WASTEWATER TREATMENT PLANT

DATA SUMMARY

TEMPERATURE-ADJUSTED pH (S.U.)
FOR FILTER PRESS SAMPLES

DATE	Press #6			Press #7		
	Conditioned Sludge		Biosolids	Conditioned Sludge		Biosolids
	0 Hours	2 Hours	24 Hours	0 Hours	2 Hours	24 Hours
12/01/13						
12/02/13						
12/03/13						
12/04/13						
12/05/13						
12/06/13						
12/07/13						
12/08/13						
12/09/13						
12/10/13	12.2	12.0	11.8	12.2	12.1	11.7
12/11/13	12.3	12.3	11.7	12.3	12.3	11.7
12/12/13	12.3	12.3	11.8	12.3	12.3	11.6
12/13/13	12.2	12.3	11.6	12.3	12.2	11.6
12/14/13						
12/15/13						
12/16/13						
12/17/13	12.2	12.1	11.6	12.2	12.2	11.5
12/18/13	12.3	12.1	11.6	12.2	12.1	11.6
12/19/13	12.2	12.1	11.7	12.2	12.1	11.6
12/20/13						
12/21/13						
12/22/13						
12/23/13						
12/24/13						
12/25/13						
12/26/13						
12/27/13						
12/28/13						
12/29/13						
12/30/13						
12/31/13						