

## Rives, Joyce

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**From:** Adam Valinetz <adamv@greencycle.net>  
**Sent:** Monday, November 21, 2016 2:26 PM  
**To:** IDEM LAReports  
**Subject:** Greencycle Troy Avenue Marketing and Distribution Reports October 2016  
**Attachments:** GreenCycle Info Sht Troy Aug 2016.docx; IDEM Report October 2016.doc; August 2016 Compost Test Results.pdf; Food Waste October 2016.pdf

\*\*\*\* This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. \*\*\*\* \_\_\_\_\_

Please see attached. Note that the 22.85 remaining dry tons were distributed in increments of 1 dry ton or less. Please let me know if you need anything else. Thanks,

Adam

**MARKETING AND DISTRIBUTION MONTHLY REPORT FORM**

(Complete and submit this form to IDEM 30 days after the last day of each month)

revised 09/2008

PERMIT NO.: IN LA 000789

FACILITY NAME: Greencycle-Troy Avenue Facility

MONTH: 

October
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 YEAR: 

2016
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Month	Dry Tons	Lab. No.	(Lab No. corresponds to lab data entered below)
January	6.85	8	
February	12.65	8	
March	59.05	8	
April	109.15	8	
May	81.3	8	
June	95.25	8	
July	52.05	9	
August	56.5	9	
September	37.8	9	
October	37.6	9	
November			
December			

**Analytical Results:**

**Enter heavy metals results as dry weights**

**Enter detection limit when result is nondetectable**

Lab Nos.:

	1	2	3	4	5	6	7	8	9	10	11	12
<b>Sample Report Date</b>	9/30/11	4/2/12	10/10/12	9/16/13	8/5/14	1/30/15	7/30/15	1/29/16	8/23/16			
<b>Percent Total Solids</b>	92.2 %	49.4 %	55.0%	60.7	55.7	51.4	51.4	45.6	50.0%			
<b>Arsenic (As)</b>	3.7 mg/kg	5.7 mg/kg	5.6 mg/kg	4.0 mg/kg	14 mg/kg	6.5 mg/kg	5.0 mg/kg	4.5 mg/kg	5.8 mg/kg			
<b>Cadmium (Cd)</b>	<0.49 mg/kg	<.95 mg/kg	<.85 mg/kg	<.82 mg/kg	< .90 mg/kg	<.83 mg/kg	<.93 mg/kg	<1.0 mg/kg	BDL .88 mg/kg			
<b>Copper (Cu)</b>	21 mg/kg	38 mg/kg	54 mg/kg	41 mg/kg	36 mg/kg	29.6 mg/kg	29.3 mg/kg	31.4 mg/kg	27.6 mg/kg			
<b>Lead (Pb)</b>	14 mg/kg	24 mg/kg	33 mg/kg	16 mg/kg	23 mg/kg	24.2 mg/kg	15.8 mg/kg	20.6 mg/kg	25.1 mg/kg			
<b>Mercury (Hg)</b>	0.035 mg/kg	0.024 mg/kg	.031 mg/kg	<.0026 mg/kg	0.043 mg/kg	<0.39 mg/kg	<0.39 mg/kg	<0.44 mg/kg	BDL .41 mg/kg			
<b>Molybdenum (Mo)</b>	1.8 mg/kg	2.2 mg/kg	3.4 mg/kg	2.1 mg/kg	2.3 mg/kg	2.4 mg/kg	2.1 mg/kg	<2 mg/kg	BDL 1.8 mg/kg			
<b>Nickel (Ni)</b>	7.6 mg/kg	12 mg/kg	12 mg/kg	8.7 mg/kg	16 mg/kg	11.7 mg/kg	9.0 mg/kg	8.8 mg/kg	10 mg/kg			
<b>Selenium (Se)</b>	< 0.98 mg/kg	<1.9 mg/kg	BDL 1.7 mg/kg	<1.6 mg/kg	BDL 1.8 mg/kg	<1.7 mg/kg	<1.9 mg/kg	<2 mg/kg	BDL 1.8 mg/kg			
<b>Zinc (Zn)</b>	66 mg/kg	99 mg/kg	170 mg/kg	120 mg/kg	95 mg/kg	105 mg/kg	107 mg/kg	107 mg/kg	87.5 mg/kg			

**Enter all nutrient results as percent dry weights**

<b>Total N (TN)</b>	.54% mg/kg	.2% mg/kg	.229% mg/kg	.20% mg/kg	.27% mg/kg	.664% mg/kg	.823% mg/kg	1 % mg/kg	.827% mg/kg			
<b>Ammonium N (NH4-N)</b>	.021% mg/kg	.024% mg/kg	.014% mg/kg	.0058% mg/kg	.048% mg/kg	.0038% mg/kg	.0076% mg/kg	.00503% mg/kg	.00257% mg/kg			
<b>Nitrate N (NO3-N)</b>	.0096% mg/kg	.003% mg/kg	.029% mg/kg	.01% mg/kg	.0074% mg/kg	.0039% mg/kg	.0043% mg/kg	.00632% mg/kg	BDL .00996% mg/kg			

<b>Phosphorus (P)</b>
<b>Potassium (K)</b>

.14% mg/kg	.2% mg/kg	.058% mg/kg	.16% mg/kg	.12% mg/kg	.223 mg/kg	.267 mg/kg	.258% mg/kg	.131% mg/kg			
.69% mg/kg	.85% mg/kg	1.2% mg/kg	.72% mg/kg	.74% mg/kg	.453% mg/kg	.606% mg/kg	.344% mg/kg	.356% mg/kg			

**Enter PCB results as dry weight**

<b>PCB</b>
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Signature: \_\_\_\_\_

Date: \_\_\_\_\_





## GreenCycle

GreenCycle Incorporated  
400 Central Avenue, Suite 200  
Northfield, Illinois 60093  
Phone: 847-441-6606  
FAX: 847-441-6610

### Uses and Application Rates for Compost

General Uses	Applications	Approximate Usage Rates	Compost Analysis Results																																				
Residential and Commercial Landscapes	Common landscape or garden amendment	1" application or 20% of planting mix	<table border="1"> <thead> <tr> <th colspan="2">GreenCycle of Indiana Troy Avenue Facility Compost Analysis</th> </tr> <tr> <th>Pollutant</th> <th>Aug. 2016 Test Results (mg/kg) dry weight</th> </tr> </thead> <tbody> <tr> <td>Arsenic</td> <td>5.8</td> </tr> <tr> <td>Cadmium</td> <td>&lt;.88</td> </tr> <tr> <td>Copper</td> <td>27.6</td> </tr> <tr> <td>Lead</td> <td>25.1</td> </tr> <tr> <td>Mercury</td> <td>&lt;0.41</td> </tr> <tr> <td>Molybdenum</td> <td>&lt;1.8</td> </tr> <tr> <td>Nickel</td> <td>10</td> </tr> <tr> <td>Selenium</td> <td>&lt;1.8</td> </tr> <tr> <td>Zinc</td> <td>87.5</td> </tr> <tr> <td></td> <th>Percent</th> </tr> <tr> <td>Total Solids</td> <td>50.0</td> </tr> <tr> <td>Ammonia Nitrogen</td> <td>0.00257</td> </tr> <tr> <td>Nitrate Nitrogen</td> <td>&lt;0.00996</td> </tr> <tr> <td>Kjeldahl Nitrogen</td> <td>.827</td> </tr> <tr> <td>Phosphorus</td> <td>0.131</td> </tr> <tr> <td>Potassium</td> <td>0.356</td> </tr> </tbody> </table>	GreenCycle of Indiana Troy Avenue Facility Compost Analysis		Pollutant	Aug. 2016 Test Results (mg/kg) dry weight	Arsenic	5.8	Cadmium	<.88	Copper	27.6	Lead	25.1	Mercury	<0.41	Molybdenum	<1.8	Nickel	10	Selenium	<1.8	Zinc	87.5		Percent	Total Solids	50.0	Ammonia Nitrogen	0.00257	Nitrate Nitrogen	<0.00996	Kjeldahl Nitrogen	.827	Phosphorus	0.131	Potassium	0.356
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Mulching	2-3" around all landscape plants																																						
New turf establishment	1-2" tilled to a 5" depth depending on soil type																																						
Turf renovation	1/8" to 1/2" topdressed after aeration, drag or rake into holes																																						
Planting bed preparation	1-2" tilled into raised beds																																						
Backfill for tree and shrub planting	30% of planting hole volume																																						
Outdoor planter mix	20-40% by volume																																						
Sod establishment	Spread 2-4" of compost, till into top 6 inches, smooth by raking, install sod																																						
Golf Courses and Athletic Fields	Construction mixes	5-20% depending on application needs																																					
	Topdressing mixes	5-20% of mix. Use 100% compost to topdress after aeration, then drag into holes																																					
	New turf establishment	1-2" tilled to a 5" depth depending on soil type																																					
	Sod establishment	On top of graded soil, spread 2-4" compost. Disc in, rake smooth, and install sod																																					
Nurseries	Field application as a soil amendment	1-2" tilled to a 5" depth																																					
	Band application for shade trees	2" applied in a 2-foot wide band																																					
	Liner beds-incorporated	1-2" pre-plant, incorporated to a 5" depth																																					
	Liner beds-mulched	1-2" mulched, post-plant																																					
	Container mixes	5-40% of volume depending on plants (less for high pH or salt-sensitive plants)																																					
Agriculture	General field soil amendment and specialty crop production	1-2" incorporated to a 5-8" depth																																					

\*Table will be updated after each compost sampling

-see the reverse side for benefits



## *GreenCycle*

GreenCycle Incorporated  
400 Central Avenue, Suite 200  
Northfield, Illinois 60093  
Phone: 847-441-6606  
FAX: 847-441-6610

### **The Benefits of Using Compost as a Soil Amendment**

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#### **Causes long-term improvements in soil texture**

- Breaks up clay soils
- Changes dusty soil to rich textured soil
- Reduces compaction, slows recompaction
- Causes soil to aggregate for better air circulation, water percolation
- Texture makes tilling and weed pulling easier
- Reduces erosion

#### **Organic content at least 6 times greater than rich topsoil**

- Renews overused soil
- Provides all major and minor trace elements
- Contains significant amounts of nitrogen
- Improves root development and structure
- Eliminates need for cover crops to restore humus

#### **High water retention-10 to 15 times its weight**

- Increases drought resistance
- Absorbent even when completely dry-unlike peat

#### **Dark color absorbs radiant energy and heats soil**

- Help plants germinate
- Lengthens growing season

#### **Heat from composting process pasteurizes material for complete safety**

- Kills plant pathogens
- Kills human pathogens
- Kills weed seeds
- Breaks down legal pesticides into benign compounds

#### **Restores microbial Activity**

- Increases earthworm population
- Microbes make nutrients available in plant-useable form
- Some microbes suppress plant diseases

#### **High Cation Exchange Capacity**

- Ties up heavy metals
- Combines with applied fertilizer-holds nutrients until needed by plants
- Trapped nutrients can't leach to groundwater
- Can't be over-applied-compost can't cause fertilizer burn

#### **Very high density: won't blow away when used as mulch or top dressing**

*-for uses and application rates, see reverse side*

August 23, 2016

Aaron Hacker  
Andrews Engineering  
7172 Graham Road  
Suite 125  
Indianapolis, IN 46256

RE: Project: Greencycle  
Pace Project No.: 50151756

Dear Aaron Hacker:

Enclosed are the analytical results for sample(s) received by the laboratory on August 12, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Chris Boyle  
chris.boyle@pacelabs.com  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Greencycle

Pace Project No.: 50151756

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### Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268

Illinois Certification #: 200074

Indiana Certification #: C-49-06

Kansas/NELAP Certification #:E-10177

Kentucky UST Certification #: 0042

Kentucky WW Certification #:98019

Ohio VAP Certification #: CL-0065

Oklahoma Certification #: 2014-148

Texas Certification #: T104704355-15-9

West Virginia Certification #: 330

Wisconsin Certification #: 999788130

USDA Soil Permit #: P330-10-00128

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Greencycle  
Pace Project No.: 50151756

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50151756001	Compost	Solid	08/12/16 09:30	08/12/16 10:15

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Greencycle

Pace Project No.: 50151756

Lab ID	Sample ID	Method	Analysts	Analytes Reported
50151756001	Compost	EPA 6010	MJC	10
		EPA 7471	JGJ	1
		SM 2540G	MLS	1
		EPA 351.2	SLB	1
		EPA 353.2	GWA	1
		SM 4500-NH3 D	GWA	1

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## ANALYTICAL RESULTS

Project: Greencycle  
Pace Project No.: 50151756

**Sample: Compost**      **Lab ID: 50151756001**      Collected: 08/12/16 09:30      Received: 08/12/16 10:15      Matrix: Solid

*Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.*

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP</b>		Analytical Method: EPA 6010    Preparation Method: EPA 3050						
Arsenic	5.8	mg/kg	1.8	1	08/17/16 08:06	08/18/16 13:20	7440-38-2	
Cadmium	ND	mg/kg	0.88	1	08/17/16 08:06	08/18/16 13:20	7440-43-9	
Copper	27.6	mg/kg	1.8	1	08/17/16 08:06	08/18/16 13:20	7440-50-8	
Lead	25.1	mg/kg	1.8	1	08/17/16 08:06	08/18/16 13:20	7439-92-1	
Molybdenum	ND	mg/kg	1.8	1	08/17/16 08:06	08/18/16 13:20	7439-98-7	
Nickel	10.0	mg/kg	1.8	1	08/17/16 08:06	08/18/16 13:20	7440-02-0	
Phosphorus	1310	mg/kg	88.4	1	08/17/16 08:06	08/18/16 13:20	7723-14-0	N2
Potassium	3560	mg/kg	88.4	1	08/17/16 08:06	08/18/16 13:20	7440-09-7	
Selenium	ND	mg/kg	1.8	1	08/17/16 08:06	08/18/16 13:20	7782-49-2	
Zinc	87.5	mg/kg	1.8	1	08/17/16 08:06	08/18/16 13:20	7440-66-6	
<b>7471 Mercury</b>		Analytical Method: EPA 7471    Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.41	1	08/19/16 13:28	08/19/16 21:07	7439-97-6	
<b>Percent Moisture</b>		Analytical Method: SM 2540G						
Percent Moisture	50.0	%	0.10	1		08/22/16 10:18		
<b>351.2 Total Kjeldahl Nitrogen</b>		Analytical Method: EPA 351.2    Preparation Method: EPA 351.2						
Nitrogen, Kjeldahl, Total	8270	mg/kg	1940	20	08/16/16 10:57	08/18/16 09:51	7727-37-9	
<b>353.2 Nitrogen, NO2/NO3</b>		Analytical Method: EPA 353.2    Preparation Method: EPA 353.2						
Nitrogen, Nitrate	ND	mg/kg	99.6	10	08/17/16 07:27	08/18/16 13:16	14797-55-8	D3,N2
<b>4500 Ammonia Soil, Distilled</b>		Analytical Method: SM 4500-NH3 D    Preparation Method: SM 4500-NH3 B						
Nitrogen, Ammonia	25.7	mg/kg	9.9	1	08/15/16 09:21	08/15/16 12:39	7664-41-7	N2

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### QUALITY CONTROL DATA

Project: Greencycle

Pace Project No.: 50151756

QC Batch: 347470

Analysis Method: EPA 7471

QC Batch Method: EPA 7471

Analysis Description: 7471 Mercury

Associated Lab Samples: 50151756001

METHOD BLANK: 1607564

Matrix: Solid

Associated Lab Samples: 50151756001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.20	08/19/16 20:54	

LABORATORY CONTROL SAMPLE: 1607565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.5	0.51	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1607566 1607567

Parameter	Units	50151174002		1607566		1607567		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Mercury	mg/kg	0.021J	.63	.64	0.67	0.66	104	100	75-125	3	20

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Greencycle

Pace Project No.: 50151756

QC Batch: 346836

Analysis Method: EPA 6010

QC Batch Method: EPA 3050

Analysis Description: 6010 MET

Associated Lab Samples: 50151756001

METHOD BLANK: 1605188

Matrix: Solid

Associated Lab Samples: 50151756001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	08/18/16 12:53	
Cadmium	mg/kg	ND	0.50	08/18/16 12:53	
Copper	mg/kg	ND	1.0	08/18/16 12:53	
Lead	mg/kg	ND	1.0	08/18/16 12:53	
Molybdenum	mg/kg	ND	1.0	08/18/16 12:53	
Nickel	mg/kg	ND	1.0	08/18/16 12:53	
Phosphorus	mg/kg	ND	50.0	08/18/16 12:53	N2
Potassium	mg/kg	ND	50.0	08/18/16 12:53	
Selenium	mg/kg	ND	1.0	08/18/16 12:53	
Zinc	mg/kg	ND	1.0	08/18/16 12:53	

LABORATORY CONTROL SAMPLE: 1605189

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	52.3	105	80-120	
Cadmium	mg/kg	50	50.3	101	80-120	
Copper	mg/kg	50	50.6	101	80-120	
Lead	mg/kg	50	49.2	98	80-120	
Molybdenum	mg/kg	50	55.0	110	80-120	
Nickel	mg/kg	50	51.2	102	80-120	
Phosphorus	mg/kg	50	51.4	103	80-120	N2
Potassium	mg/kg	500	522	104	80-120	
Selenium	mg/kg	50	52.0	104	80-120	
Zinc	mg/kg	50	49.7	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1605190 1605191

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50151816003 Result	Spike Conc.	Spike Conc.	MS Result						
Arsenic	mg/kg	6.4	44.2	48.3	50.0	55.3	99	101	75-125	10	20
Cadmium	mg/kg	ND	44.2	48.3	44.4	48.9	100	101	75-125	10	20
Copper	mg/kg	14.5	44.2	48.3	52.8	56.5	87	87	75-125	7	20
Lead	mg/kg	5.5	44.2	48.3	39.8	42.6	78	77	75-125	7	20
Molybdenum	mg/kg	3.0	44.2	48.3	42.0	46.4	88	90	75-125	10	20
Nickel	mg/kg	14.2	44.2	48.3	48.9	52.0	78	78	75-125	6	20
Phosphorus	mg/kg	275	44.2	48.3	312	322	84	97	75-125	3	20 N2
Potassium	mg/kg	1200	442	483	2310	2530	251	275	75-125	9	20 M3
Selenium	mg/kg	ND	44.2	48.3	42.0	46.2	95	96	75-125	10	20

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### QUALITY CONTROL DATA

Project: Greencycle

Pace Project No.: 50151756

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1605190												1605191	
Parameter	Units	50151816003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
			Spike Conc.	Spike Conc.									
Zinc	mg/kg	33.3	44.2	48.3	68.7	75.0	80	86	75-125	9	20		

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### QUALITY CONTROL DATA

Project: Greencycle

Pace Project No.: 50151756

QC Batch: 347958

Analysis Method: SM 2540G

QC Batch Method: SM 2540G

Analysis Description: Dry Weight/Percent Moisture

Associated Lab Samples: 50151756001

SAMPLE DUPLICATE: 1609773

Parameter	Units	50152065002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.8	12.9	1	5	

SAMPLE DUPLICATE: 1609871

Parameter	Units	50152342001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	21.0	22.2	6	5	R1

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### QUALITY CONTROL DATA

Project: Greencycle

Pace Project No.: 50151756

QC Batch: 347108	Analysis Method: EPA 351.2
QC Batch Method: EPA 351.2	Analysis Description: 351.2 TKN
Associated Lab Samples: 50151756001	

METHOD BLANK: 1605971 Matrix: Solid  
Associated Lab Samples: 50151756001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Kjeldahl, Total	mg/kg	ND	48.8	08/18/16 08:12	

LABORATORY CONTROL SAMPLE: 1605972

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Kjeldahl, Total	mg/kg	490	492	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1605973 1605974

Parameter	Units	1605973		1605974		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50151756001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Nitrogen, Kjeldahl, Total	mg/kg	8270	996	970	8080	8900	-20	65	90-110	10	20 P6

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### QUALITY CONTROL DATA

Project: Greencycle

Pace Project No.: 50151756

QC Batch: 347287	Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2	Analysis Description: 353.2 Nitrate + Nitrite
Associated Lab Samples: 50151756001	

METHOD BLANK: 1606661 Matrix: Solid  
Associated Lab Samples: 50151756001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/kg	ND	5.0	08/18/16 13:12	N2

LABORATORY CONTROL SAMPLE: 1606662

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/kg	10	11.1	111	90-110	N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1606663 1606664

Parameter	Units	50151756001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Nitrogen, Nitrate	mg/kg	ND	199	199	268	272	113	116	90-110	2	20	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Greencycle

Pace Project No.: 50151756

QC Batch: 346869	Analysis Method: SM 4500-NH3 D
QC Batch Method: SM 4500-NH3 B	Analysis Description: 4500 Ammonia, Distilled
Associated Lab Samples: 50151756001	

METHOD BLANK: 1605274 Matrix: Solid

Associated Lab Samples: 50151756001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/kg	ND	5.0	08/15/16 12:36	N2

LABORATORY CONTROL SAMPLE: 1605275

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/kg	20	21.6	108	80-120	N2

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1605276 1605277

Parameter	Units	1605276		1605277		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		50151756001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Nitrogen, Ammonia	mg/kg	25.7	39.6	39.8	70.7	58.7	114	83	80-120	19	20 N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: Greencycle  
Pace Project No.: 50151756

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold TNI accreditation for this parameter.

P6 Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Greencycle

Pace Project No.: 50151756

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50151756001	Compost	EPA 3050	346836	EPA 6010	347498
50151756001	Compost	EPA 7471	347470	EPA 7471	347894
50151756001	Compost	SM 2540G	347958		
50151756001	Compost	EPA 351.2	347108	EPA 351.2	347482
50151756001	Compost	EPA 353.2	347287	EPA 353.2	347569
50151756001	Compost	SM 4500-NH3 B	346869	SM 4500-NH3 D	346916

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Sample Condition Upon Receipt



Client Name: Andrews Eng Project # Se151756

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other \_\_\_\_\_

Tracking #: \_\_\_\_\_

Custody Seal on Cooler/Box Present:  yes  no Seals Intact:  yes  no

Date/Time 5035A kits placed in freezer

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer 1 2 3 4 5 6 A B C D E F Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature (Initial/Corrected) 21.8°/21.8 Ice Visible in Sample Containers:  yes  no

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: AD 8/12/14

Are samples from West Virginia? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	1.
Document any containers out of temp.	
Chain of Custody Present: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Filled Out: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Chain of Custody Relinquished: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sampler Name & Signature on COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Containers Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sample Labels match COC: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes date/time/ID/Analysis	
All containers needing acid/base pres. have been checked? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10 (Circle) HNO3 H2SO4 NaOH NaOH/ZnAc
exceptions: VOA, coliform, TOC, O&G	
All containers needing preservation are found to be in compliance with EPA recommendation (<2, >9, >12) unless otherwise noted.	
Residual Chlorine Check (SVOC 625 Pest/PCB 608)	11. Present Absent
Residual Chlorine Check (Total/Amenable/Free Cyanide)	12. Present Absent
Headspace in VOA Vials (>6mm): <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13
Headspace Wisconsin Sulfide <input type="checkbox"/> Yes <input type="checkbox"/> No	14
Trip Blank Present: <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15
Trip Blank Custody Seals Present <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Project Manager Review	
Samples Arrived within Hold Time: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Sufficient Volume: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16.
Correct Containers Used: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	17.

Client Notification/ Resolution: \_\_\_\_\_ Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Manager Review: Chb Date: 8-12-14



# Troy Ave. Billing 2016

GreenCycle of Indiana  
1103 W. Troy Avenue  
Indianapolis, IN 46225

## Sales [Item Detail]

October 2016

11/21/16  
2:16:25 PM

Page 1

Name	ID#	Date	Quantity
<b>Food Waste</b>	<b>Food Waste</b>		
Eli Lilly- SBM	11609952	10/5/16	0.34
Eli Lilly- SBM	11610028	10/7/16	0.43
Eli Lilly- SBM	11610157	10/12/16	0.36
Eli Lilly- SBM	11610237	10/14/16	0.37
Eli Lilly- SBM	11610367	10/19/16	0.37
Eli Lilly- SBM	11610429	10/21/16	0.23
Eli Lilly- SBM	11610585	10/26/16	0.42
Eli Lilly- SBM	11610687	10/28/16	0.32
Patachou inc.-Green with In11609856		10/3/16	1.14
Patachou inc.-Green with In11609861		10/3/16	0.35
Patachou inc.-Green with In11609979		10/6/16	1.19
Patachou inc.-Green with In11609988		10/6/16	0.55
Patachou inc.-Green with In11610050		10/10/16	0.91
Patachou inc.-Green with In11610061		10/10/16	1.05
Patachou inc.-Green with In11610184		10/13/16	1.05
Patachou inc.-Green with In11610315		10/18/16	1.04
Patachou inc.-Green with In11610325		10/18/16	0.97
Patachou inc.-Green with In11610418		10/21/16	1.18
Patachou inc.-Green with In11610430		10/21/16	0.19
Patachou inc.-Green with In11610452		10/24/16	1.1
Patachou inc.-Green with In11610467		10/24/16	0.35
Patachou inc.-Green with In11610632		10/27/16	1.18
Patachou inc.-Green with In11610704		10/31/16	0.98
Patachou inc.-Green with In11610722		10/31/16	1.35
		<b>Food Waste Total:</b>	<b>17.42</b>