



August 29, 2016

Ms. Charlene Fitch
Missouri Department of Natural Resources
Division of Environmental Quality
1730 East Elm Street
Jefferson City, Missouri 65101

**Re: 2016 Annual Assessment Monitoring Report
Bridgeton Landfill, LLC – Bridgeton Landfill
Missouri DNR Permit #MO – 118912
Bridgeton, Missouri**

Dear Ms. Fitch:

On behalf of the Bridgeton Landfill, LLC – Bridgeton Landfill, Jett Environmental Consulting is submitting 2016 Annual Assessment Monitoring Report for the groundwater assessment monitoring program.

If you have any questions or comments, please contact me at steve.jett@jettenviro.com or 314-496-4654.

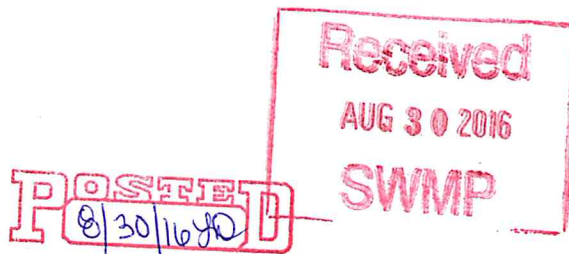
Sincerely,

A handwritten signature in black ink, appearing to read "Steve Jett", is written over a horizontal line.

Steve Jett, P.G.
Owner

Attachment: Annual Assessment Monitoring Report (1 Hardcopy)

cc: Dana Sincox – Republic Services (1 Hardcopy & PDF via Email)



**2016 ANNUAL ASSESSMENT
MONITORING REPORT**

**Bridgeton Landfill, LLC
Bridgeton Landfill
Bridgeton, Missouri**

MO DNR PERMIT No. 118912

August 2016

Prepared by:



**10 Quiet Brook Court
St. Charles, MO 63303**

**314-496-4654
www.jettenviro.com**

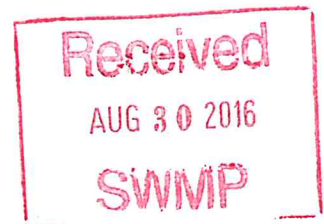


TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	ASSESSMENT WELLS AND CONSTITUENTS	1
3.0	ASSESSMENT MONITORING EVENTS.....	2
4.0	ASSESSMENT MONITORING RESULTS	3
5.0	CURRENT GROUNDWATER CONDITIONS	3
5.1	Concentrations of Assessment Constituents and SWMP-Specified Non-10 CSR 80-3 Constituents	3
5.2	Extents of Assessment Constituents and SWMP-Specified Non-10 CSR 80-3 Constituents	4
5.3	Migration Rates of Assessment Constituents and SWMP-Specified Non-10 CSR 80-3 Constituents	5
5.4	Summary of Current Conditions	6
6.0	RECOMMENDATIONS.....	6

APPENDICES

Appendix A	Assessment Well Location Map
Appendix B	Groundwater Monitoring Results for Assessment Constituents & SWMP-Specified Non-10 CSR 80-3 Constituents

1.0 INTRODUCTION

On behalf of the Bridgeton Landfill, LLC - Bridgeton Landfill, Jett Environmental Consulting has prepared this 2016 Annual Assessment Monitoring Report (AAMR) for the facility's groundwater monitoring program. The AAMR has been prepared in accordance with the requirements of the December 17, 2013 Assessment Monitoring Plan (AMP) by Herst & Associates, Inc. and the August 18, 2014 response letter to the Missouri Department of Natural Resources (MDNR) Solid Waste Management Program's (SWMP's) July 30, 2014 comments on the AMP. The AMP was originally prepared in response to confirmed inorganic constituent statistical exceedances and confirmed organic constituent detections above the laboratory reporting limit (RL) that were observed at groundwater monitoring wells PZ-104-SS and PZ-104-SD in November 2012 and May 2013.

2.0 ASSESSMENT WELLS AND CONSTITUENTS

The following nine groundwater monitoring wells constitute the facility's assessment wells and were sampled as a part of the assessment monitoring program within the past year:

PZ-104-SS; PZ-209-SS; PZ-210-SS; PZ-211-SS;
PZ-104-SD; PZ-209-SD; PZ-210-SD; PZ-211-SD; and
PZ-104-KS.

In addition, the following two background groundwater monitoring wells were sampled within the past year in order to complete establishment of data to be used in determining background concentrations for select constituents:

PZ-212-SS; and
PZ-212-SD.

Appendix A provides a location map of the nine assessment wells and two background wells.

The facility's assessment monitoring constituent list includes 32 constituents. Fifteen of these constituents were specified in the AMP based on groundwater detection monitoring results at PZ-104-SS and PZ-104-SD initially identified in the AMP:

Arsenic, total;	Vanadium, total;	Ethylbenzene;
Barium, total;	1,2-Dichloroethane;	Methyl Ethyl Ketone;
Chromium, total;	4-Methyl-2-pentanone;	p-Dichlorobenzene (1,4-);
Cobalt, total;	Acetone;	Toluene; and
Nickel, total;	Benzene;	Xylenes, total.

During the first assessment event in September 2014, the assessment wells were sampled for the constituents listed in Title 10 of the Missouri Code of State Regulation (CSR) 80-3 Appendix II. Six of the Appendix II list of assessment monitoring constituents that were detected in PZ-104-SS and/or PZ-104-SD in September 2014 had not previously been detected in May 2012, November 2012, and/or April 2013. These six constituents were thereafter added to the assessment constituent list:

Beryllium, total;	Copper, total;	Selenium, total; and
Cadmium, total;	Lead, total;	Zinc, total.

Four of the Appendix II constituents that were detected in PZ-104-SS and/or PZ-104-SD in September 2014 had not previously been analyzed in wells PZ-104-SS or PZ-104-SD in May 2012, November 2012, or April 2013. These four constituents were thereafter also added to the assessment constituent list:

Sulfide; Phenol; and
p-Cresol; Polychlorinated Biphenyl Aroclor 1221 (PCB-1221).

Seven additional constituents are not included in 10 CSR 80-3, but were specified by the SWMP in its July 30, 2014 letter to be included in the Bridgeton Landfill assessment monitoring program based on the results of SWMP split sampling of PZ-104-SD in November 2012:

1,2,4-Trimethylbenzene; Isopropylbenzene; Tetrahydrofuran.
1,3,5-Trimethylbenzene; Methyl-tert-butyl Ether;
1-Chlorobutane; p-Isopropyltoluene; and

3.0 ASSESSMENT MONITORING EVENTS

The AMP specified semi-annual sampling beginning with the fourth quarter 2015 event. The semi-annual events are scheduled to be conducted in conjunction with the second and fourth quarter groundwater detection monitoring events. Therefore, over the last year (third quarter 2015 through second quarter 2016), assessment monitoring events were performed at the Bridgeton Landfill during third quarter 2015, fourth quarter 2015, and second quarter 2016. Laboratory analytical testing was performed by Pace Analytical Services, Inc.

Only 1-chlorobutane was required to be sampled from the assessment monitoring wells in first quarter 2016 in order to complete the four rounds of quarterly background sampling for 1-chlorobutane.

Third Quarter 2015: This was an "off-quarter" assessment event intended to gather additional data on Appendix II constituents, in accordance with 10 CSR 80.3.010(11)(C)6.D, plus SWMP-specified non-10 CSR 80-3 constituents. Background wells PZ-212-SS and PZ-212-SD were sampled for 17 constituents: the 6 Appendix II assessment constituents not detected prior to September 2014; the 4 Appendix II assessment constituents not analyzed prior to September 2014; and the 7 SWMP-specified non-10 CSR 80-3 constituents. The third quarter 2015 event represented the second quarterly background monitoring for 1-chlorobutane at the nine assessment monitoring wells. Sampling was performed by Herst & Associates, Inc. in August 2015, concurrently with the third quarter 2015 detection monitoring event.

Fourth Quarter 2015: This was a standard semi-annual assessment event performed in accordance with 10 CSR 80.3.010(11)(C)6.F.(II). The nine assessment monitoring wells were sampled for assessment constituents plus SWMP-specified non-10 CSR 80-3 constituents. The fourth quarter 2015 event represented the third quarterly background monitoring for 1-chlorobutane at the nine assessment monitoring wells and two background wells. Sampling was performed by Herst & Associates, Inc. and Feezor Engineering, Inc., concurrently with the fourth quarter 2015 detection monitoring event.

First Quarter 2016: The AMP specified semi-annual sampling beginning with the fourth quarter 2015 event. The semi-annual events are scheduled to be conducted in conjunction with the second and fourth quarter groundwater detection monitoring events. Therefore, only 1-chlorobutane was required to be sampled (nine assessment monitoring wells and two background wells) in first quarter 2016, in order to complete the four rounds of quarterly background sampling for 1-chlorobutane. Sampling was performed by Feezor Engineering, Inc., concurrently with the first quarter 2016 detection monitoring event.

Second Quarter 2016: The nine assessment monitoring wells were sampled for assessment constituents plus SWMP-specified non-10 CSR 80-3 constituents. This was a standard semi-annual assessment event performed in accordance with 10 CSR 80.3.010(11)(C)6.F.(II). Sampling was performed by Feezor Engineering, Inc., concurrently with the second quarter 2016 detection monitoring event.

4.0 ASSESSMENT MONITORING RESULTS

The results of the assessment monitoring events performed from third quarter 2015 through second quarter 2016 are summarized on tables located in **Appendix B**. Constituent concentrations that exceeded groundwater protection standards (GWPSs) are indicated on the tables. GWPSs are from the December 17, 2013 AMP and 2015 AAMR Addendum, based on either maximum contaminant levels (MCLs) (National Primary Drinking Water Standard) or background concentrations (where available). Organic constituent GWPSs at assessment wells are assumed to be equal to the MCL (where established) or the RL if no MCL is established.

5.0 CURRENT GROUNDWATER CONDITIONS

In accordance with the AMP, this section presents an annual evaluation of current groundwater conditions, based on the past year of assessment monitoring results. This evaluation includes the concentrations, extents, and migration rates of the assessment constituents plus SWMP-specified non-10 CSR 80-3 constituents.

5.1 Concentrations of Assessment Constituents and SWMP-Specified Non-10 CSR 80-3 Constituents

Appendix B summarizes the concentrations of the assessment constituents and SWMP-specified non-10 CSR 80-3 constituents from third quarter 2015 through second quarter 2016.

In general, assessment constituent concentrations and SWMP-specified non-10 CSR 80-3 constituent concentrations have decreased or remained stable over the past year. The majority of constituents that were not detected in second quarter 2015 remain below RLs as of second quarter 2016.

One assessment constituent that exhibited a GWPS exceedance in second quarter 2015 did not exhibit an exceedance as of second quarter 2016, indicating improvement with respect to this constituent over the past year:

- p-Cresol at PZ-104-SD (20.4 ug/L to <10 ug/L).

In addition, four other assessment constituents that were detected in second quarter 2015 were not detected as of second quarter 2016:

- Ethylbenzene at PZ-104-SD;
- Tetrahydrofuran at PZ-104-SD;
- Copper, total at PZ-104-KS and PZ-210-SD; &
- Arsenic, total at PZ-210-SS and PZ-210-SD.

As of second quarter 2016, there was one MCL-based GWPS exceedance for inorganic constituents at the assessment wells:

- Arsenic, total at PZ-104-SD.

As of second quarter 2016, there were no background-based GWPS exceedance for an inorganic constituent at the assessment wells.

As of second quarter 2016, there were five RL-based GWPS exceedances for inorganic constituents at the assessment wells:

- Sulfide at PZ-104-SS (initial detection in second quarter 2016);
- Sulfide at PZ-209-SD (initial detection in second quarter 2016);
- Sulfide at PZ-211-SD (initial detection in second quarter 2016);
- Nickel, total at PZ-104-SD (increased over the last year); &
- Vanadium, total at PZ-104-SD (increased over the last year, but consistent with historical).

Sulfide has only sporadically been detected at the site and was last detected at PZ-104-SS, PZ-209-SD, and PZ-211-SD in September 2014. Nickel was initially detected at PZ-104-SD in May 2012, and the concentrations were consistent with historical through first quarter 2016, with a slight increase during second quarter 2016. Vanadium was initially detected at PZ-104-SD in April 2013 and has been reported at stable concentrations over the last two years of monitoring.

As of second quarter 2016, the GWPS exceedances for organic assessment constituents at the assessment wells are as follows:

- Benzene at PZ-104-SS (44.1 ug/L, MCL-based GWPS of 5 ug/L)
- Benzene at PZ-104-SD (554 ug/L, MCL-based GWPS of 5 ug/L);
- Benzene at PZ-104-KS (5.8 ug/L, MCL-based GWPS of 5 ug/L, initial detection);
- p-Isopropyltoluene at PZ-104-KS (5.7 ug/L, RL-based GWPS 5 of ug/L, initial detection); &
- Methyl-tert-butyl ether at PZ-104-SD (5.2 ug/L, RL-based GWPS of 5 ug/L).

Benzene concentrations at PZ-104-SS have decreased 95% in the past year, from 935 ug/L in second quarter 2015 to 44.1 ug/L as of second quarter 2016. Benzene concentrations at PZ-104-SD have decreased 18% in the past year, from 672 ug/L in second quarter 2015 to 554 ug/L as of second quarter 2016.

The second quarter 2016 detections of benzene and p-isopropyltoluene at PZ-104-KS were both initial detections. Well PZ-104-KS was resampled on July 25, 2016 to verify the initial second quarter 2016 detections. Both benzene at PZ-104-KS (12.1 ug/L) and p-isopropyltoluene (12.2 ug/L) were confirmed detected during the July 2016 resampling event. The second quarter 2016 detection of methyl-tert-butyl ether at PZ-104-SD is the second detection at this well.

In the past year, the facility has implemented several measures to enhance the removal of leachate and landfill gas from the waste mass.

- Enhancement of leachate management and acquisition from self-expressing well heads, thereby reducing pressure on well heads and evacuating additional liquid.
- Expansion of the landfill gas collection system, thereby enhancing the collection of gas and reducing intra-well pressure.
- Addition of soils in areas of high differential settlement to enhance drainage, thereby preventing precipitation from percolating through the waste mass in the south quarry.

By removing leachate and gas that may be acting as a source of groundwater impacts in the vicinity of the assessment wells, the interim corrective measures are believed to be reducing constituent concentrations.

5.2 Extents of Assessment Constituents and SWMP-Specified Non-10 CSR 80-3 Constituents

PZ-104-SS, PZ-104-SD, and PZ-104-KS are the only wells with confirmed organic GWPS exceedances; therefore the extent of confirmed organic GWPS exceedances has not expanded outside of the PZ-104 well cluster. In general, the extents of the assessment and SWMP-specified non-10 CSR 80-3 constituent exceedances have decreased or stabilized over the past year, with the exception of sulfide, benzene, and p-isopropyltoluene. None of the assessment constituents exhibited an overall expansion of their exceeding area extents in the past year.

Sulfide was the only inorganic constituent that exhibited a GWPS exceedance outside of the PZ-104 well cluster. However the first quarter 2016 trace level sulfide detections at PZ-104-SS, PZ-209-SD, and PZ-211-SD were only slightly above the laboratory RL and were the first sulfide detections at these wells since September 2014.

The vertical extent of the benzene exceedances has expanded in the past year to encompass well PZ-104-KS, which is a deeper well within the same well cluster as PZ-104-SS and PZ-104-SD. Benzene concentrations have decreased significantly at PZ-104-SS and PZ-104-SD over the past year as noted in **Section 5.1**.

The SWMP-specified non-10 CSR 80-3 constituent, p-isopropyltoluene, was initially detected at PZ-104-SS in September 2014, with one detection in the last five events (February 2015). As of 2016, only PZ-104-KS exhibits concentrations of p-isopropyltoluene above the GWPS.

5.3 Migration Rates of Assessment Constituents and SWMP-Specified Non-10 CSR 80-3 Constituents

The majority of assessment constituents and SWMP-specified non-10 CSR 80-3 constituents either do not exhibit GWPS exceedances as of second quarter 2016, or the extent of the GWPS exceedances has remained stable. Accordingly, migration rates for these constituents cannot be evaluated at the present time.

One assessment constituent exhibiting a GWPS exceedance in second quarter 2015 did not exhibit an exceedance as of second quarter 2016: p-cresol at PZ-104-SD. The extent of p-cresol GWPS exceedances has reduced in the past year such that it no longer encompasses well PZ-104-SD (20.4 ug/L to <10 ug/L).

Tetrahydrofuran exhibited a GWPS in second quarter 2015 at well PZ-104-SD (301 ug/L), but was reported as non-detect in second quarter 2016 at a higher RL (<1,000 ug/L). The laboratory RL was raised (diluted 10x) during the second quarter 2016 event due to the presence of high levels of other analytes or matrix interference. Therefore, an increase or decrease of tetrahydrofuran at PZ-104-SD cannot be confirmed at this time.

Only three constituents exhibited both an exceedance of a GWPS as of second quarter 2016 and an expansion of the extent of exceedances between second quarter 2015 and second quarter 2016: sulfide, benzene, and p-isopropyltoluene.

Migration rates are evaluated in the sub-sections below. In general, because the assessment well area has historically been regarded as hydrogeologically upgradient of the Bridgeton Landfill, migration of constituents via advective-dispersive transport away from the waste mass and towards the assessment monitoring wells is not believed to be likely.

Sulfide

The extent of sulfide GWPS exceedances may have expanded slightly in the past year such that it now encompasses wells PZ-104-SS, PZ-209-SD, and PZ-211-SD. Sulfide was reported as non-detect at each well a year ago (second quarter 2015 event). However, the laboratory reporting limit for sulfide has fluctuated over the last year (1, 2, 5, and 10 mg/L) due to laboratory dilution factors. Therefore, since the second quarter 2016 sulfide detections are below the laboratory reporting limit utilized during the second quarter 2015 event, a true estimate on the changes of sulfide over the last year is not possible. During the second quarter 2016 event, sulfide was reported as non-detect at adjacent clustered wells PZ-104-SD, PZ-104-KS, PZ-209-SS, and PZ-211-SD.

Benzene

The extent of benzene GWPS exceedances changed in the past year such that it now encompasses PZ-104-KS. Based on the as-built construction drawings for wells PZ-104-SD and

PZ-104-KS, their screened intervals are at elevations of 246.9 – 237.1 ft/msl and 85.0 – 75.2 ft/msl, respectively. The midpoints of the PZ-104-SD and PZ-104-KS screens are therefore at elevations of 242.0 ft/msl and 80.1 ft/msl, respectively, indicating 161.9 ft of vertical separation between the screen midpoints. Benzene moved across this distance between the first quarter 2016 and second quarter 2016 sampling events, indicating a vertical migration rate of approximately 1.60 ft/day (161.9 ft / 101 days).

p-Isopropyltoluene (SWMP-Specified Non-10 CSR 80-3 Constituent)

The extent of p-isopropyltoluene GWPS exceedances changed in the past year such that it now encompasses PZ-104-KS. Based on the as-built construction drawings for wells PZ-104-SS and PZ-104-KS, their screened intervals are at elevations of 347.1 – 337.3 ft/msl and 85.0 – 75.2 ft/msl, respectively. The midpoints of the PZ-104-SS and PZ-104-KS screens are therefore at elevations of 342.2 ft/msl and 80.1 ft/msl, respectively, indicating 262.1 ft of vertical separation between the screen midpoints. p-Isopropyltoluene moved across this distance between the first quarter 2015 and second quarter 2016 sampling events, indicating a vertical migration rate of approximately 0.53 ft/day (262.1 ft / 493 days). Note that PZ-104-SD (screen interval between depths of PZ-104-SS and PZ-104-SK) has not had a detection of p-isopropyltoluene to date.

5.4 Summary of Current Conditions

In general, the assessment monitoring results indicate that the confirmed groundwater impacts in the vicinity of the assessment wells have remained stable or improved in the past year. PZ-104-SS, PZ-104-SD, and PZ-104-KS are the only wells with confirmed organic GWPS exceedances; therefore the extent of confirmed organic GWPS exceedances has not expanded outside of PZ-104 well cluster. There were no confirmed constituents exceeding GWPSs that exhibited an overall expansion of their horizontal extents in the past year. Sulfide is the only inorganic constituent that exhibited a GWPS exceedance outside of the PZ-104 well cluster. However the trace level sulfide detections at PZ-104-SS, PZ-209-SD, and PZ-211-SD are only slightly above the laboratory RL and each were diluted (ranging from 2x to 10x) by the laboratory during the second quarter 2016 event. The second quarter 2016 sulfide detections are the first detections since September 2014.

One assessment constituent that exceeded its GWPS in second quarter 2015 did not exceed its GWPS as of second quarter 2016: p-cresol at PZ-104-SD.

In general, the reductions in constituent concentrations observed in the past year at the assessment monitoring wells are believed to be attributable in part to the aggressive pursuit of interim corrective measures at the facility, as described in **Section 5.1** above.

The site is currently evaluating the well integrity of P-104-KS to validate recent results and determine if there exhibits a well issue or a possible sampling collection issue for this well.

6.0 RECOMMENDATIONS



In accordance with 10 CSR 80-3.010(11)(C)6.I(III), the facility will continue with semi-annual assessment monitoring as described in the AMP.

Potential remedial alternatives to address the groundwater quality issues at wells PZ-104-SS and PZ-104-SD were discussed and evaluated in a February 19, 2016 Assessment of Corrective Measures Report Addendum by Feezor Engineering, Inc. Given that confirmed GWPS exceedances for assessment constituents continue to only be present at the PZ-104 well cluster as of second quarter 2016, the proposed corrective measures for PZ-104-SS/PZ-104-SD would also apply to PZ-104-KS.

APPENDIX A



LEGEND

-  Assessment Groundwater Monitoring Well
-  Background Groundwater Monitoring Well



**Figure 1: Assessment Monitoring Wells
 Bridgeton Landfill, LLC
 Bridgeton, Missouri**

APPENDIX B

**Groundwater Monitoring Results for Assessment Constituents
Bridgeton Landfill, LLC
Bridgeton Landfill**

Constituent	Units	Constituent Type	GWPS	PZ-104-SS	PZ-104-SS	PZ-104-SS	PZ-104-SS
				08/25/15	11/18/15	3/1/2016	06/03/16
Inorganic Constituents							
Arsenic, Total	ug/L	Initially Identified Assessment	11	<5	<10	<5	<5
Barium, Total	ug/L	Initially Identified Assessment	2,000	95.6	106	98.2	102
Beryllium, Total	ug/L	New App II, Not Prev. Detected	4	<2	<4	<2	<2
Cadmium, Total	ug/L	New App II, Not Prev. Detected	5	<0.2	<2	<0.20	<0.2
Chromium, Total	ug/L	Initially Identified Assessment	100	<5	<10	<5	<5
Cobalt, Total	ug/L	Initially Identified Assessment	RL	<5	<5	<5	<5
Copper, Total	ug/L	New App II, Not Prev. Detected	1,300	<5	<10	<5	<5
Lead, Total	ug/L	New App II, Not Prev. Detected	15	<5	<10	<5	<5
Nickel, Total	ug/L	Initially Identified Assessment	23	<10	<10	<10	<10
Selenium, Total	ug/L	New App II, Not Prev. Detected	50	<5	<10	<5	<5
Sulfide	mg/L	New App II, Not Prev. Analyzed	RL	NR	<1	NR	4.9
Vanadium, Total	ug/L	Initially Identified Assessment	RL	<10	<10	<10	<10
Zinc, Total	ug/L	New App II, Not Prev. Detected	220	<20	<20	<20	<20
Organic Constituents							
1,2,4-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,2-Dichloroethane	ug/L	Initially Identified Assessment	5	<5	<5	<5	<5
1,3,5-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,4-Dichlorobenzene	ug/L	Initially Identified Assessment	75	<5	<5	<5	5.8
1-Chlorobutane	ug/L	Non-App II from MDNR Split	RL	<5	<5	<5	<5
4-Methyl-2-pentanone	ug/L	Initially Identified Assessment	RL	<10	<10	<10	<10
Acetone	ug/L	Initially Identified Assessment	RL	<10	<10	<10	<10
Benzene	ug/L	Initially Identified Assessment	5	357	469	8.3	44.1
Ethylbenzene	ug/L	Initially Identified Assessment	700	13.2	8.7	<5	<5
Isopropylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Methyl Ethyl Ketone	ug/L	Initially Identified Assessment	RL	<10	<10	<10	<10
Methyl-tert-butyl Ether	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
PCB Aroclor 1221	ug/L	New App II, Not Prev. Analyzed	0.5	NR	<0.2	NR	<0.2
p-Cresol*	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	<10	<10
Phenol	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	<10	<10
p-Isopropyltoluene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Tetrahydrofuran	ug/L	Non-App II from MDNR Split	RL	NR	<100	NR	<100
Toluene	ug/L	Initially Identified Assessment	1,000	14.7	5.2	<5	5.7
Xylenes, Total	ug/L	Initially Identified Assessment	10,000	21.2	23.1	15.4	8.7

Notes:

RL: Laboratory Reporting Limit.

NR: Not required to be analyzed this event.

* Samples not analyzed for p-cresol individually. Reported result is for m+p-cresols.

Constituent concentration exceeds GWPS (where established) or MCL.

**Groundwater Monitoring Results for Assessment Constituents
Bridgeton Landfill, LLC
Bridgeton Landfill**

Constituent	Units	Constituent Type	GWPS	PZ-104-SD	PZ-104-SD	PZ-104-SD	PZ-104-SD
				08/25/15	11/18/15	3/1/2016	06/03/16
Inorganic Constituents							
Arsenic, Total	ug/L	Initially Identified Assessment	10	12.4	22.5	16.7	19.3
Barium, Total	ug/L	Initially Identified Assessment	2,000	491	553	609	848
Beryllium, Total	ug/L	New App II, Not Prev. Detected	27.5	<2	<4	<2	<2
Cadmium, Total	ug/L	New App II, Not Prev. Detected	67.2	<0.2	<2	<0.20	<0.2
Chromium, Total	ug/L	Initially Identified Assessment	100	16.1	14.7	17.8	21.2
Cobalt, Total	ug/L	Initially Identified Assessment	RL	<5	<5	<5	<5
Copper, Total	ug/L	New App II, Not Prev. Detected	1,300	<5	<10	<5	<5
Lead, Total	ug/L	New App II, Not Prev. Detected	250	<5	<10	<5	<5
Nickel, Total	ug/L	Initially Identified Assessment	RL	48	64	64.4	83.8
Selenium, Total	ug/L	New App II, Not Prev. Detected	50	<5	<10	<5	<5
Sulfide	mg/L	New App II, Not Prev. Analyzed	RL	NR	<1	NR	<1
Vanadium, Total	ug/L	Initially Identified Assessment	RL	15.3	16.8	16.6	16.9
Zinc, Total	ug/L	New App II, Not Prev. Detected	2950	27.1	<20	<20	<20
Organic Constituents							
1,2,4-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,2-Dichloroethane	ug/L	Initially Identified Assessment	5	<5	<5	<5	<5
1,3,5-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,4-Dichlorobenzene	ug/L	Initially Identified Assessment	75	<5	<5	<5	<5
1-Chlorobutane	ug/L	Non-App II from MDNR Split	RL	<5	<5	<50	<5
4-Methyl-2-pentanone	ug/L	Initially Identified Assessment	RL	<10	<10	<10	<10
Acetone	ug/L	Initially Identified Assessment	RL	109	<10	<10	<10
Benzene	ug/L	Initially Identified Assessment	5	564	640	426	554
Ethylbenzene	ug/L	Initially Identified Assessment	700	7.3	5.4	<5	<5
Isopropylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Methyl Ethyl Ketone	ug/L	Initially Identified Assessment	RL	70.9	<10	<10	<10
Methyl-tert-butyl Ether	ug/L	Non-App II from MDNR Split	RL	NR	5.4	NR	5.2
PCB Aroclor 1221	ug/L	New App II, Not Prev. Analyzed	0.5	NR	<0.2	NR	<0.2
p-Cresol*	ug/L	New App II, Not Prev. Analyzed	RL	NR	67.6	<10	<10
Phenol	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	<10	<10
p-Isopropyltoluene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Tetrahydrofuran	ug/L	Non-App II from MDNR Split	RL	NR	1560	NR	<1000
Toluene	ug/L	Initially Identified Assessment	1,000	84.3	10.5	9.6	8.5
Xylenes, Total	ug/L	Initially Identified Assessment	10,000	22	19.1	19.3	24.4

Notes:

RL: Laboratory Reporting Limit.

NR: Not required to be analyzed this event.

* Samples not analyzed for p-cresol individually. Reported result is for m+p-cresols.

Constituent concentration exceeds GWPS (where established) or MCL.

**Groundwater Monitoring Results for Assessment Constituents
Bridgeton Landfill, LLC
Bridgeton Landfill**

Constituent	Units	Constituent Type	GWPS	PZ-104-KS	PZ-104-KS	PZ-104-KS	PZ-104-KS
				08/25/15	11/18/15	3/9/2016	06/10/16
Inorganic Constituents							
Arsenic, Total	ug/L	Initially Identified Assessment	10	NR	<10	NR	<5
Barium, Total	ug/L	Initially Identified Assessment	2,000	NR	100	NR	92.8
Beryllium, Total	ug/L	New App II, Not Prev. Detected	27.5	NR	<4	NR	<2
Cadmium, Total	ug/L	New App II, Not Prev. Detected	67.2	NR	<2	NR	<0.2
Chromium, Total	ug/L	Initially Identified Assessment	100	NR	<10	NR	<5
Cobalt, Total	ug/L	Initially Identified Assessment	RL	NR	<5	NR	<5
Copper, Total	ug/L	New App II, Not Prev. Detected	1,300	NR	<10	NR	<5
Lead, Total	ug/L	New App II, Not Prev. Detected	250	NR	<10	NR	<5
Nickel, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Selenium, Total	ug/L	New App II, Not Prev. Detected	50	NR	<10	NR	<5
Sulfide	mg/L	New App II, Not Prev. Analyzed	RL	NR	<5	NR	<1
Vanadium, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Zinc, Total	ug/L	New App II, Not Prev. Detected	2950	NR	<20	NR	<20
Organic Constituents							
1,2,4-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,2-Dichloroethane	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
1,3,5-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,4-Dichlorobenzene	ug/L	Initially Identified Assessment	75	NR	<5	NR	<5
1-Chlorobutane	ug/L	Non-App II from MDNR Split	RL	<5	<5	<5	<5
4-Methyl-2-pentanone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Acetone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Benzene	ug/L	Initially Identified Assessment	5	NR	<5	NR	5.8 / 12.1
Ethylbenzene	ug/L	Initially Identified Assessment	700	NR	<5	NR	<5
Isopropylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Methyl Ethyl Ketone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Methyl-tert-butyl Ether	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
PCB Aroclor 1221	ug/L	New App II, Not Prev. Analyzed	0.5	NR	<0.2	NR	<0.2
p-Cresol*	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
Phenol	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
p-Isopropyltoluene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	5.7 / 12.2
Tetrahydrofuran	ug/L	Non-App II from MDNR Split	RL	NR	<100	NR	<100
Toluene	ug/L	Initially Identified Assessment	1,000	NR	<5	NR	<5
Xylenes, Total	ug/L	Initially Identified Assessment	10,000	NR	<5	NR	6.7 / 7.6

Notes:

RL: Laboratory Reporting Limit.

NR: Not required to be analyzed this event.

* Samples not analyzed for p-cresol individually. Reported result is for m+p-cresols.

Second set of results for benzene, p-isopropyltoluene, and xylenes (total) represents verification sampling on 7/25/16.

Constituent concentration exceeds GWPS (where established) or MCL.

**Groundwater Monitoring Results for Assessment Constituents
Bridgeton Landfill, LLC
Bridgeton Landfill**

Constituent	Units	Constituent Type	GWPS	PZ-209-SS	PZ-209-SS	PZ-209-SS	PZ-209-SS
				08/19/15	12/02/15	3/9/2016	06/10/16
Inorganic Constituents							
Arsenic, Total	ug/L	Initially Identified Assessment	11	NR	<10	NR	<5
Barium, Total	ug/L	Initially Identified Assessment	2,000	NR	83.5	NR	81.4
Beryllium, Total	ug/L	New App II, Not Prev. Detected	4	NR	<4	NR	<2
Cadmium, Total	ug/L	New App II, Not Prev. Detected	5	NR	<2	NR	<0.2
Chromium, Total	ug/L	Initially Identified Assessment	100	NR	<10	NR	<5
Cobalt, Total	ug/L	Initially Identified Assessment	RL	NR	<5	NR	<5
Copper, Total	ug/L	New App II, Not Prev. Detected	1,300	NR	<10	NR	<5
Lead, Total	ug/L	New App II, Not Prev. Detected	15	NR	<10	NR	<5
Nickel, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Selenium, Total	ug/L	New App II, Not Prev. Detected	50	NR	<10	NR	<5
Sulfide	mg/L	New App II, Not Prev. Analyzed	RL	NR	<2	NR	<5
Vanadium, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Zinc, Total	ug/L	New App II, Not Prev. Detected	220	NR	<20	NR	<20
Organic Constituents							
1,2,4-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,2-Dichloroethane	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
1,3,5-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,4-Dichlorobenzene	ug/L	Initially Identified Assessment	75	NR	<5	NR	<5
1-Chlorobutane	ug/L	Non-App II from MDNR Split	RL	<5	<5	<5	<5
4-Methyl-2-pentanone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Acetone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Benzene	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
Ethylbenzene	ug/L	Initially Identified Assessment	700	NR	<5	NR	<5
Isopropylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Methyl Ethyl Ketone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Methyl-tert-butyl Ether	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
PCB Aroclor 1221	ug/L	New App II, Not Prev. Analyzed	0.5	NR	<0.2	NR	<0.2
p-Cresol*	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
Phenol	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
p-Isopropyltoluene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Tetrahydrofuran	ug/L	Non-App II from MDNR Split	RL	NR	<100	NR	<100
Toluene	ug/L	Initially Identified Assessment	1,000	NR	<5	NR	<5
Xylenes, Total	ug/L	Initially Identified Assessment	10,000	NR	<5	NR	<5

Notes:

RL: Laboratory Reporting Limit.

NR: Not required to be analyzed this event.

* Samples not analyzed for p-cresol individually. Reported result is for m+p-cresols.

Constituent concentration exceeds GWPS (where established) or MCL.

**Groundwater Monitoring Results for Assessment Constituents
Bridgeton Landfill, LLC
Bridgeton Landfill**

Constituent	Units	Constituent Type	GWPS	PZ-209-SD	PZ-209-SD	PZ-209-SD	PZ-209-SD
				08/19/15	12/02/15	3/9/2016	06/01/16
Inorganic Constituents							
Arsenic, Total	ug/L	Initially Identified Assessment	10	NR	<10	NR	<5
Barium, Total	ug/L	Initially Identified Assessment	2,000	NR	41.6	NR	49.3
Beryllium, Total	ug/L	New App II, Not Prev. Detected	27.5	NR	<4	NR	<2
Cadmium, Total	ug/L	New App II, Not Prev. Detected	67.2	NR	<2	NR	<0.2
Chromium, Total	ug/L	Initially Identified Assessment	100	NR	<10	NR	<5
Cobalt, Total	ug/L	Initially Identified Assessment	RL	NR	<5	NR	<5
Copper, Total	ug/L	New App II, Not Prev. Detected	1,300	NR	<10	NR	<5
Lead, Total	ug/L	New App II, Not Prev. Detected	250	NR	<10	NR	<5
Nickel, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Selenium, Total	ug/L	New App II, Not Prev. Detected	50	NR	<10	NR	<5
Sulfide	mg/L	New App II, Not Prev. Analyzed	RL	NR	<5	NR	1.4
Vanadium, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Zinc, Total	ug/L	New App II, Not Prev. Detected	2950	NR	<20	NR	<20
Organic Constituents							
1,2,4-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,2-Dichloroethane	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
1,3,5-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,4-Dichlorobenzene	ug/L	Initially Identified Assessment	75	NR	<5	NR	<5
1-Chlorobutane	ug/L	Non-App II from MDNR Split	RL	<5	<5	<5	<5
4-Methyl-2-pentanone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Acetone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Benzene	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
Ethylbenzene	ug/L	Initially Identified Assessment	700	NR	<5	NR	<5
Isopropylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Methyl Ethyl Ketone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Methyl-tert-butyl Ether	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
PCB Aroclor 1221	ug/L	New App II, Not Prev. Analyzed	0.5	NR	<0.2	NR	<0.2
p-Cresol*	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
Phenol	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
p-Isopropyltoluene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Tetrahydrofuran	ug/L	Non-App II from MDNR Split	RL	NR	<100	NR	<100
Toluene	ug/L	Initially Identified Assessment	1,000	NR	<5	NR	<5
Xylenes, Total	ug/L	Initially Identified Assessment	10,000	NR	<5	NR	<5

Notes:

RL: Laboratory Reporting Limit.

NR: Not required to be analyzed this event.

* Samples not analyzed for p-cresol individually. Reported result is for m+p-cresols.

Constituent concentration exceeds GWPS (where established) or MCL.

**Groundwater Monitoring Results for Assessment Constituents
Bridgeton Landfill, LLC
Bridgeton Landfill**

Constituent	Units	Constituent Type	GWPS	PZ-210-SS	PZ-210-SS	PZ-210-SS	PZ-210-SS
				08/19/15	11/19/15	3/9/2016	06/10/16
<i>Inorganic Constituents</i>							
Arsenic, Total	ug/L	Initially Identified Assessment	11	NR	<10	NR	<5
Barium, Total	ug/L	Initially Identified Assessment	2,000	NR	75.8	NR	81.3
Beryllium, Total	ug/L	New App II, Not Prev. Detected	4	NR	<4	NR	<2
Cadmium, Total	ug/L	New App II, Not Prev. Detected	5	NR	<2	NR	<0.2
Chromium, Total	ug/L	Initially Identified Assessment	100	NR	<10	NR	<5
Cobalt, Total	ug/L	Initially Identified Assessment	RL	NR	<5	NR	<5
Copper, Total	ug/L	New App II, Not Prev. Detected	1,300	NR	<10	NR	<5
Lead, Total	ug/L	New App II, Not Prev. Detected	15	NR	<10	NR	<5
Nickel, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Selenium, Total	ug/L	New App II, Not Prev. Detected	50	NR	<10	NR	<5
Sulfide	mg/L	New App II, Not Prev. Analyzed	RL	NR	<1	NR	<1
Vanadium, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Zinc, Total	ug/L	New App II, Not Prev. Detected	220	NR	<20	NR	<20
<i>Organic Constituents</i>							
1,2,4-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,2-Dichloroethane	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
1,3,5-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,4-Dichlorobenzene	ug/L	Initially Identified Assessment	75	NR	<5	NR	<5
1-Chlorobutane	ug/L	Non-App II from MDNR Split	RL	<5	<5	<5	<5
4-Methyl-2-pentanone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Acetone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Benzene	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
Ethylbenzene	ug/L	Initially Identified Assessment	700	NR	<5	NR	<5
Isopropylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Methyl Ethyl Ketone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Methyl-tert-butyl Ether	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
PCB Aroclor 1221	ug/L	New App II, Not Prev. Analyzed	0.5	NR	<0.2	NR	<0.2
p-Cresol*	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
Phenol	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
p-Isopropyltoluene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Tetrahydrofuran	ug/L	Non-App II from MDNR Split	RL	NR	<100	NR	<100
Toluene	ug/L	Initially Identified Assessment	1,000	NR	<5	NR	<5
Xylenes, Total	ug/L	Initially Identified Assessment	10,000	NR	<5	NR	<5

Notes:

RL: Laboratory Reporting Limit.

NR: Not required to be analyzed this event.

* Samples not analyzed for p-cresol individually. Reported result is for m+p-cresols.

Constituent concentration exceeds GWPS (where established) or MCL.

**Groundwater Monitoring Results for Assessment Constituents
Bridgeton Landfill, LLC
Bridgeton Landfill**

Constituent	Units	Constituent Type	GWPS	PZ-210-SD	PZ-210-SD	PZ-210-SD	PZ-210-SD
				08/19/15	11/19/15	3/9/2016	06/01/16
Inorganic Constituents							
Arsenic, Total	ug/L	Initially Identified Assessment	10	NR	<10	NR	<5
Barium, Total	ug/L	Initially Identified Assessment	2,000	NR	74.4	NR	73.1
Beryllium, Total	ug/L	New App II, Not Prev. Detected	27.5	NR	<4	NR	<2
Cadmium, Total	ug/L	New App II, Not Prev. Detected	67.2	NR	<2	NR	<0.2
Chromium, Total	ug/L	Initially Identified Assessment	100	NR	<10	NR	<5
Cobalt, Total	ug/L	Initially Identified Assessment	RL	NR	<5	NR	<5
Copper, Total	ug/L	New App II, Not Prev. Detected	1,300	NR	<10	NR	<5
Lead, Total	ug/L	New App II, Not Prev. Detected	250	NR	<10	NR	<5
Nickel, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Selenium, Total	ug/L	New App II, Not Prev. Detected	50	NR	<10	NR	<5
Sulfide	mg/L	New App II, Not Prev. Analyzed	RL	NR	<1	NR	<1
Vanadium, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Zinc, Total	ug/L	New App II, Not Prev. Detected	2950	NR	<20	NR	<20
Organic Constituents							
1,2,4-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,2-Dichloroethane	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
1,3,5-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,4-Dichlorobenzene	ug/L	Initially Identified Assessment	75	NR	<5	NR	<5
1-Chlorobutane	ug/L	Non-App II from MDNR Split	RL	<5	<5	<5	<5
4-Methyl-2-pentanone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Acetone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Benzene	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
Ethylbenzene	ug/L	Initially Identified Assessment	700	NR	<5	NR	<5
Isopropylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Methyl Ethyl Ketone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Methyl-tert-butyl Ether	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
PCB Aroclor 1221	ug/L	New App II, Not Prev. Analyzed	0.5	NR	<0.2	NR	<0.2
p-Cresol*	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
Phenol	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
p-Isopropyltoluene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Tetrahydrofuran	ug/L	Non-App II from MDNR Split	RL	NR	<100	NR	<100
Toluene	ug/L	Initially Identified Assessment	1,000	NR	<5	NR	<5
Xylenes, Total	ug/L	Initially Identified Assessment	10,000	NR	<5	NR	<5

Notes:

RL: Laboratory Reporting Limit.

NR: Not required to be analyzed this event.

* Samples not analyzed for p-cresol individually. Reported result is for m+p-cresols.

Constituent concentration exceeds GWPS (where established) or MCL.

**Groundwater Monitoring Results for Assessment Constituents
Bridgeton Landfill, LLC
Bridgeton Landfill**

Constituent	Units	Constituent Type	GWPS	PZ-211-SS	PZ-211-SS	PZ-211-SS	PZ-211-SS
				08/19/15	12/01/15	3/9/2016	06/10/16
Inorganic Constituents							
Arsenic, Total	ug/L	Initially Identified Assessment	11	NR	<10	NR	<5
Barium, Total	ug/L	Initially Identified Assessment	2,000	NR	77.3	NR	64.2
Beryllium, Total	ug/L	New App II, Not Prev. Detected	4	NR	<4	NR	<2
Cadmium, Total	ug/L	New App II, Not Prev. Detected	5	NR	<2	NR	<0.2
Chromium, Total	ug/L	Initially Identified Assessment	100	NR	<10	NR	<5
Cobalt, Total	ug/L	Initially Identified Assessment	RL	NR	<5	NR	<5
Copper, Total	ug/L	New App II, Not Prev. Detected	1,300	NR	<10	NR	<5
Lead, Total	ug/L	New App II, Not Prev. Detected	15	NR	<10	NR	<5
Nickel, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Selenium, Total	ug/L	New App II, Not Prev. Detected	50	NR	<10	NR	<5
Sulfide	mg/L	New App II, Not Prev. Analyzed	RL	NR	<1	NR	<1
Vanadium, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Zinc, Total	ug/L	New App II, Not Prev. Detected	220	NR	<20	NR	<20
Organic Constituents							
1,2,4-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,2-Dichloroethane	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
1,3,5-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,4-Dichlorobenzene	ug/L	Initially Identified Assessment	75	NR	<5	NR	<5
1-Chlorobutane	ug/L	Non-App II from MDNR Split	RL	<5	<5	<5	<5
4-Methyl-2-pentanone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Acetone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Benzene	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
Ethylbenzene	ug/L	Initially Identified Assessment	700	NR	<5	NR	<5
Isopropylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Methyl Ethyl Ketone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Methyl-tert-butyl Ether	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
PCB Aroclor 1221	ug/L	New App II, Not Prev. Analyzed	0.5	NR	<0.2	NR	<0.2
p-Cresol*	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
Phenol	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
p-Isopropyltoluene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Tetrahydrofuran	ug/L	Non-App II from MDNR Split	RL	NR	<100	NR	<100
Toluene	ug/L	Initially Identified Assessment	1,000	NR	<5	NR	<5
Xylenes, Total	ug/L	Initially Identified Assessment	10,000	NR	<5	NR	<5

Notes:

RL: Laboratory Reporting Limit.

NR: Not required to be analyzed this event.

* Samples not analyzed for p-cresol individually. Reported result is for m+p-cresols.

Constituent concentration exceeds GWPS (where established) or MCL.

**Groundwater Monitoring Results for Assessment Constituents
Bridgeton Landfill, LLC
Bridgeton Landfill**

Constituent	Units	Constituent Type	GWPS	PZ-211-SD	PZ-211-SD	PZ-211-SD	PZ-211-SD
				08/19/15	12/01/15	3/9/2016	06/01/16
<i>Inorganic Constituents</i>							
Arsenic, Total	ug/L	Initially Identified Assessment	10	NR	<10	NR	<5
Barium, Total	ug/L	Initially Identified Assessment	2,000	NR	27.5	NR	42
Beryllium, Total	ug/L	New App II, Not Prev. Detected	27.5	NR	<4	NR	<2
Cadmium, Total	ug/L	New App II, Not Prev. Detected	67.2	NR	<2	NR	<0.2
Chromium, Total	ug/L	Initially Identified Assessment	100	NR	<10	NR	<5
Cobalt, Total	ug/L	Initially Identified Assessment	RL	NR	<5	NR	<5
Copper, Total	ug/L	New App II, Not Prev. Detected	1,300	NR	<10	NR	<5
Lead, Total	ug/L	New App II, Not Prev. Detected	250	NR	<10	NR	<5
Nickel, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Selenium, Total	ug/L	New App II, Not Prev. Detected	50	NR	<10	NR	<5
Sulfide	mg/L	New App II, Not Prev. Analyzed	RL	NR	<2	NR	2
Vanadium, Total	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Zinc, Total	ug/L	New App II, Not Prev. Detected	2950	NR	<20	NR	<20
<i>Organic Constituents</i>							
1,2,4-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,2-Dichloroethane	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
1,3,5-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
1,4-Dichlorobenzene	ug/L	Initially Identified Assessment	75	NR	<5	NR	<5
1-Chlorobutane	ug/L	Non-App II from MDNR Split	RL	<5	<5	<5	<5
4-Methyl-2-pentanone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Acetone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Benzene	ug/L	Initially Identified Assessment	5	NR	<5	NR	<5
Ethylbenzene	ug/L	Initially Identified Assessment	700	NR	<5	NR	<5
Isopropylbenzene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Methyl Ethyl Ketone	ug/L	Initially Identified Assessment	RL	NR	<10	NR	<10
Methyl-tert-butyl Ether	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
PCB Aroclor 1221	ug/L	New App II, Not Prev. Analyzed	0.5	NR	<0.2	NR	<0.2
p-Cresol*	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
Phenol	ug/L	New App II, Not Prev. Analyzed	RL	NR	<10	NR	<10
p-Isopropyltoluene	ug/L	Non-App II from MDNR Split	RL	NR	<5	NR	<5
Tetrahydrofuran	ug/L	Non-App II from MDNR Split	RL	NR	<100	NR	<100
Toluene	ug/L	Initially Identified Assessment	1,000	NR	<5	NR	<5
Xylenes, Total	ug/L	Initially Identified Assessment	10,000	NR	<5	NR	<5

Notes:

RL: Laboratory Reporting Limit.

NR: Not required to be analyzed this event.

* Samples not analyzed for p-cresol individually. Reported result is for m+p-cresols.

Constituent concentration exceeds GWPS (where established) or MCL.

**Groundwater Monitoring Results for Assessment Constituents
Bridgeton Landfill, LLC
Bridgeton Landfill**

Constituent	Units	Constituent Type	GWPS	PZ-212-SS	PZ-212-SS	PZ-212-SS	PZ-212-SS
				08/25/15	12/03/15	3/7/2016	6/2/2016
<i>Inorganic Constituents</i>							
Arsenic, Total	ug/L	Initially Identified Assessment	11	NR	<10	<5	<5
Barium, Total	ug/L	Initially Identified Assessment	2,000	NR	141	116	94.6
Beryllium, Total	ug/L	New App II, Not Prev. Detected	4	<2	<4	<2	<2
Cadmium, Total	ug/L	New App II, Not Prev. Detected	5	<0.2	<2	<0.20	<0.20
Chromium, Total	ug/L	Initially Identified Assessment	100	NR	<10	5.6	<5
Cobalt, Total	ug/L	Initially Identified Assessment	RL	NR	5.8	<5	<5
Copper, Total	ug/L	New App II, Not Prev. Detected	1,300	<5	<10	<5	<5
Lead, Total	ug/L	New App II, Not Prev. Detected	15	<5	<5	<5	<5
Nickel, Total	ug/L	Initially Identified Assessment	RL	NR	14.1	<10	<10
Selenium, Total	ug/L	New App II, Not Prev. Detected	50	<5	<10	<5	<5
Sulfide	mg/L	New App II, Not Prev. Analyzed	RL	<1	<1	NR	NR
Vanadium, Total	ug/L	Initially Identified Assessment	RL	NR	<10	<10	<10
Zinc, Total	ug/L	New App II, Not Prev. Detected	220	24.1	25.2	25.1	<20
<i>Organic Constituents</i>							
1,2,4-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	<5	NR	NR	NR
1,2-Dichloroethane	ug/L	Initially Identified Assessment	5	NR	<5	<5	<5
1,3,5-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	<5	NR	NR	NR
1,4-Dichlorobenzene	ug/L	Initially Identified Assessment	75	NR	<5	<5	<5
1-Chlorobutane	ug/L	Non-App II from MDNR Split	RL	<5	<5	<5	NR
4-Methyl-2-pentanone	ug/L	Initially Identified Assessment	RL	NR	<10	<10	<10
Acetone	ug/L	Initially Identified Assessment	RL	NR	<10	<10	<10
Benzene	ug/L	Initially Identified Assessment	5	NR	<5	<5	<5
Ethylbenzene	ug/L	Initially Identified Assessment	700	NR	<5	<5	<5
Isopropylbenzene	ug/L	Non-App II from MDNR Split	RL	<5	NR	NR	NR
Methyl Ethyl Ketone	ug/L	Initially Identified Assessment	RL	NR	<10	<10	<10
Methyl-tert-butyl Ether	ug/L	Non-App II from MDNR Split	RL	<5	NR	NR	NR
PCB Aroclor 1221	ug/L	New App II, Not Prev. Analyzed	0.5	<0.21	<0.2	NR	NR
p-Cresol*	ug/L	New App II, Not Prev. Analyzed	RL	<10	<10	<10	NR
Phenol	ug/L	New App II, Not Prev. Analyzed	RL	<10	<10	<10	NR
p-Isopropyltoluene	ug/L	Non-App II from MDNR Split	RL	<5	NR	NR	NR
Tetrahydrofuran	ug/L	Non-App II from MDNR Split	RL	<100	NR	NR	NR
Toluene	ug/L	Initially Identified Assessment	1,000	NR	<5	<5	<5
Xylenes, Total	ug/L	Initially Identified Assessment	10,000	NR	<5	<5	<5

Notes:

RL: Laboratory Reporting Limit.

NR: Not required to be analyzed this event.

* Samples not analyzed for p-cresol individually. Reported result is for m+p-cresols.

PZ-212-SS is a Background well and Non-Assessment well. Therefore, detections not compared to GWPSs.

**Groundwater Monitoring Results for Assessment Constituents
Bridgeton Landfill, LLC
Bridgeton Landfill**

Constituent	Units	Constituent Type	GWPS	PZ-212-SD	PZ-212-SD	PZ-212-SD	PZ-212-SD
				08/25/15	12/03/15	3/7/2016	6/2/2016
<i>Inorganic Constituents</i>							
Arsenic, Total	ug/L	Initially Identified Assessment	10	NR	<5	<5	<5
Barium, Total	ug/L	Initially Identified Assessment	2,000	NR	180	199	214
Beryllium, Total	ug/L	New App II, Not Prev. Detected	27.5	<2	<4	<2	<2
Cadmium, Total	ug/L	New App II, Not Prev. Detected	67.2	0.34	<2	<0.20	<0.20
Chromium, Total	ug/L	Initially Identified Assessment	100	NR	<10	<5	<5
Cobalt, Total	ug/L	Initially Identified Assessment	RL	NR	<5	<5	<5
Copper, Total	ug/L	New App II, Not Prev. Detected	1,300	<5	<10	<5	<5
Lead, Total	ug/L	New App II, Not Prev. Detected	250	<5	10.2	<5	<5
Nickel, Total	ug/L	Initially Identified Assessment	RL	NR	<10	<10	<10
Selenium, Total	ug/L	New App II, Not Prev. Detected	50	<5	<10	<5	<5
Sulfide	mg/L	New App II, Not Prev. Analyzed	RL	<1	<1	NR	NR
Vanadium, Total	ug/L	Initially Identified Assessment	RL	NR	<10	<10	<10
Zinc, Total	ug/L	New App II, Not Prev. Detected	2950	25.9	<20	<20	<20
<i>Organic Constituents</i>							
1,2,4-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	<5	NR	NR	NR
1,2-Dichloroethane	ug/L	Initially Identified Assessment	5	NR	<5	<5	<5
1,3,5-Trimethylbenzene	ug/L	Non-App II from MDNR Split	RL	<5	NR	NR	NR
1,4-Dichlorobenzene	ug/L	Initially Identified Assessment	75	NR	<5	<5	<5
1-Chlorobutane	ug/L	Non-App II from MDNR Split	RL	<5	<5	<5	NR
4-Methyl-2-pentanone	ug/L	Initially Identified Assessment	RL	NR	<10	<10	<10
Acetone	ug/L	Initially Identified Assessment	RL	NR	<10	<10	<10
Benzene	ug/L	Initially Identified Assessment	5	NR	<5	<5	<5
Ethylbenzene	ug/L	Initially Identified Assessment	700	NR	<5	<5	<5
Isopropylbenzene	ug/L	Non-App II from MDNR Split	RL	<5	NR	NR	NR
Methyl Ethyl Ketone	ug/L	Initially Identified Assessment	RL	NR	<10	<10	<10
Methyl-tert-butyl Ether	ug/L	Non-App II from MDNR Split	RL	<5	NR	NR	NR
PCB Aroclor 1221	ug/L	New App II, Not Prev. Analyzed	0.5	<0.21	<0.2	NR	NR
p-Cresol*	ug/L	New App II, Not Prev. Analyzed	RL	<10	45.3	<10	NR
Phenol	ug/L	New App II, Not Prev. Analyzed	RL	<10	25.7	<10	NR
p-Isopropyltoluene	ug/L	Non-App II from MDNR Split	RL	<5	NR	NR	NR
Tetrahydrofuran	ug/L	Non-App II from MDNR Split	RL	<100	NR	NR	NR
Toluene	ug/L	Initially Identified Assessment	1,000	NR	<5	<5	<5
Xylenes, Total	ug/L	Initially Identified Assessment	10,000	NR	<5	<5	<5

Notes:

RL: Laboratory Reporting Limit.

NR: Not required to be analyzed this event.

* Samples not analyzed for p-cresol individually. Reported result is for m+p-cresols.

PZ-212-SD is a Background well and Non-Assessment well. Therefore, detections not compared to GWPSs.