JETT ENVIRONMENTAL CONSULTING

December 27, 2016

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

Re: Fourth Quarter 2016 Assessment Monitoring Event Summary Report
Bridgeton Landfill, LLC - Bridgeton Landfill
Missouri DNR Permit #MO -118912

Dear Ms. Fitch:

On behalf of Bridgeton Landfill, LLC, Jett Environmental Consulting is submitting the *Assessment Monitoring Event Summary Report* for the Fourth Quarter 2016 groundwater assessment monitoring event at the Bridgeton Landfill.

In accordance with the December 17, 2013 *Assessment Monitoring Plan (AMP) – Wells 104-SS and 104-SD* (AMP) and the August 18, 2014 addendum to the AMP, a groundwater assessment monitoring event was performed at the Bridgeton Landfill during the Fourth Quarter of 2016. Sampling was performed by Feezor Engineering, Inc. on November 8-10 and November 21-22, 2016, concurrently with the facility's quarterly groundwater detection monitoring event. Laboratory analysis of groundwater samples was performed by Pace Analytical Services, Inc. The complete laboratory data package was dated December 15, 2016.

As specified in Section 4.4 of the *AMP*, the following groundwater monitoring wells constitute the facility's assessment wells: 104-SS, 104-SD, 104-KS, 209-SS, 209-SD, 210-SS, 210-SD, 211-SS, and 211-SD. **Figure 1** illustrates the locations of the facility's assessment wells. The results of the Fourth Quarter 2016 assessment event are summarized on the attached **Table 1**. In accordance with Section 4.7 of the *AMP*, the results of the assessment monitoring will be discussed in more detail in the facility's *Annual Assessment Monitoring Report*, due August 31, 2017.

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 (typically May and November). **Table 2** summarizes the anticipated assessment sampling schedule for the next semi-annual event (May 2017).

Per an October 14, 2016 Missouri Department of Natural Resources (MDNR) letter, the site submitted an *Updated AMP* to MDNR on November 14, 2016. At the time of submittal of this *Fourth Quarter 2016 Assessment Monitoring Event Summary Report*, MDNR comments have not been received regarding the *Updated AMP*.

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

Sincerely,

Steve Jett, P.G.
Owner

Received
DEC 28 2016
SWMP

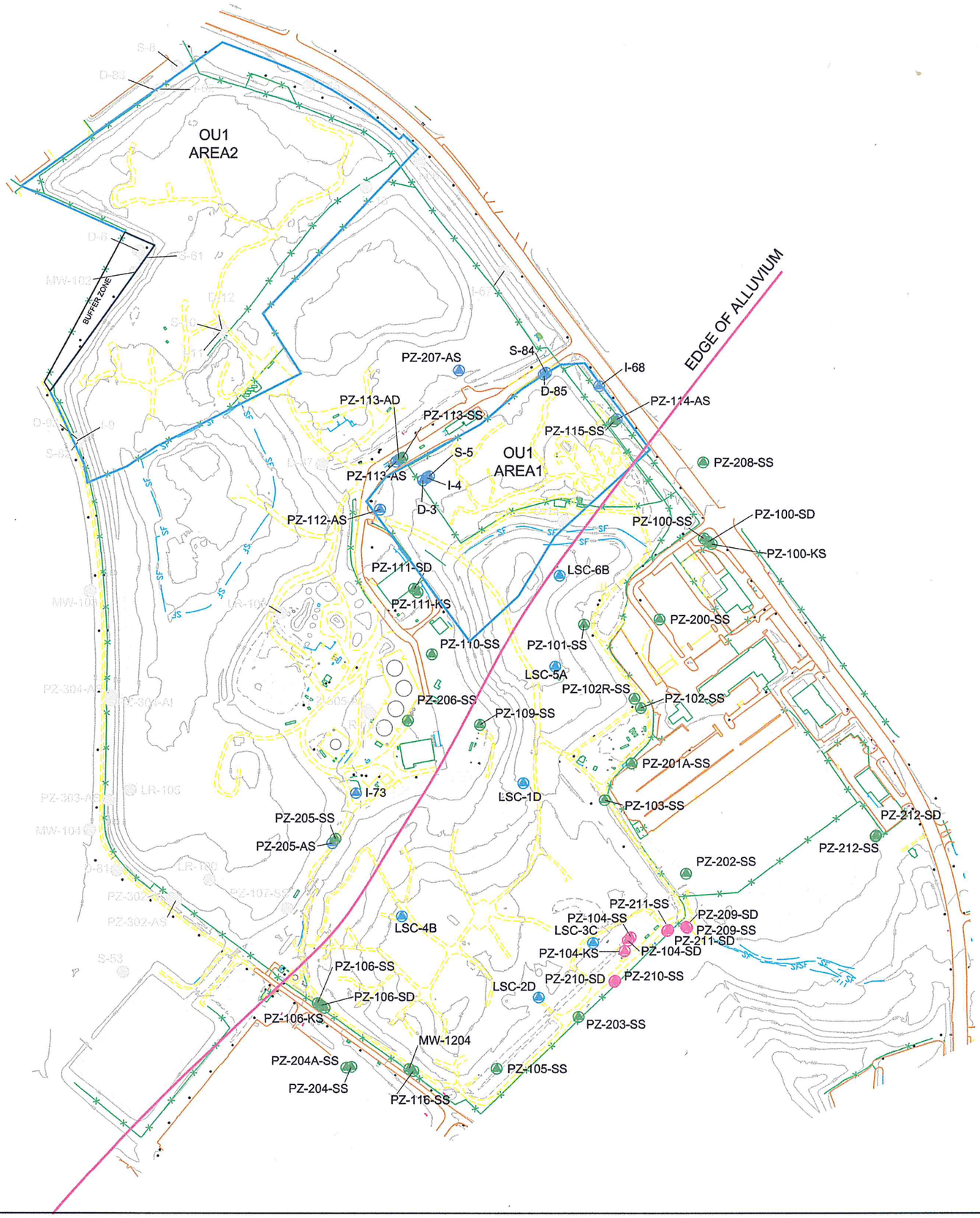
POSTED 12-28-16 TP

10 Quiet Brook Court
St. Charles, MO 63303

314-496-4654
www.jettenviro.com

cc: *Dana Sincox – Bridgeton Landfill, LLC (1 Hardcopy & PDF via Email)*
Jessie Merrigan – Lathrop & Gage (PDF via Email)
Victoria Warren – Republic Services (PDF via Email)
Mark Milward – Saint Louis County Department of Public Health (PDF via Email)

Attachments: *Figure 1 – Assessment Monitoring Wells*
Table 1 – Assessment Monitoring Results
Table 2 – Anticipated Assessment Sampling Schedule



WELL PREFIX/SUFFIX EXPLANATION

SS = ST. LOUIS UPPER SALEM UNIT	AS = SHALLOW ALLUVIUM
SD = DEEP SALEM UNIT	AI = INTERMEDIATE ALLUVIUM
KS = KEOKUK UNIT	AD = DEEP ALLUVIUM
LCS = LEACHATE COLLECTION SUMP	LR - LEACHATE RISER

Notes: Aerial topography provided Cooper Aerial Surveys Co. dated 2/27/16.

LEGEND

- LEACHATE COLLECTION SUMP
- ALLUVIUM GROUNDWATER WELL
- BEDROCK GROUNDWATER WELL
- ASSESSMENT MONITORING WELL

NORTH

0 100 200 400 800

Scale in Feet

Graphic Scale: 1 inch = 400 feet

JETT ENVIRONMENTAL CONSULTING

10 Quiet Brook Court
St. Charles, MO 63303
314-496-4654
www.jettenviro.com

Figure 1
Assessment Monitoring Wells Map
Bridgeton Landfill, LLC - Bridgeton, Missouri

Table 1
Assessment Monitoring Results, November 2016 Event
Bridgeton Landfill, LLC

Constituent	Units	Constituent Type	PZ-104-SS	PZ-104-SD	PZ-104-SD Dup	PZ-104-KS	PZ-209-SS	PZ-209-SD	PZ-210-SS	PZ-210-SD	PZ-211-SS	PZ-211-SD
			11/10/16	11/09/16	11/09/16	11/10/16	11/21/16	11/21/16	11/22/16	11/22/16	11/21/16	11/21/16
Inorganic Constituents												
Arsenic, Total	ug/L	10 CSR 80-3 App I+II	<5	20.2	19.7	<5	<5	<5	<5	<5	<5	<5
Barium, Total	ug/L	10 CSR 80-3 App I+II	100	647	650	90	38	64.1	969	475	81.4	70.4
Beryllium, Total	ug/L	10 CSR 80-3 App I+II	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Cadmium, Total	ug/L	10 CSR 80-3 App I+II	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chromium, Total	ug/L	10 CSR 80-3 App I+II	<5	14.8	14.4	<5	<5	<5	<5	<5	<5	<5
Cobalt, Total	ug/L	10 CSR 80-3 App I+II	<5	<5	<5	<5	<5	<5	5.4	30.1	<5	<5
Copper, Total	ug/L	10 CSR 80-3 App I+II	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Lead, Total	ug/L	10 CSR 80-3 App I+II	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Nickel, Total	ug/L	10 CSR 80-3 App I+II	<10	67.9	69	<10	<10	<10	10.4	73.5	<10	<10
Selenium, Total	ug/L	10 CSR 80-3 App I+II	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Sulfide	mg/L	10 CSR 80-3 App II	<20	<1	<1	<1	2.2	1.2	<1	<1	<1	2.7
Vanadium, Total	ug/L	10 CSR 80-3 App I+II	<10	12.6	12.1	<10	<10	<10	<10	<10	<10	<10
Zinc, Total	ug/L	10 CSR 80-3 App I+II	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Organic Constituents												
1,2,4-Trimethylbenzene	ug/L	MDNR-Specified	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichlorobenzene	ug/L	10 CSR 80-3 App I+II	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	ug/L	10 CSR 80-3 App I+II	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5
1,3,5-Trimethylbenzene	ug/L	MDNR-Specified	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5
1,4-Dichlorobenzene	ug/L	10 CSR 80-3 App I+II	7.1	<25	6.5	<5	<5	<5	<5	<5	<5	<5
1-Chlorobutane	ug/L	MDNR-Specified	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone	ug/L	10 CSR 80-3 App I+II	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	ug/L	10 CSR 80-3 App I+II	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10
Benzene	ug/L	10 CSR 80-3 App I+II	279	592	564	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	ug/L	10 CSR 80-3 App I+II	5.9	<25	<5	<5	<5	<5	<5	<5	<5	<5
Isopropylbenzene	ug/L	MDNR-Specified	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5
Methyl Ethyl Ketone	ug/L	10 CSR 80-3 App I+II	<10	<50	<10	<10	<10	<10	<10	<10	<10	<10
Methyl-tert-butyl Ether	ug/L	MDNR-Specified	8.6	<25	5.2	<5	<5	<5	<5	<5	<5	<5
PCB Aroclor 1221	ug/L	10 CSR 80-3 App II	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.22	<0.2	<0.2	<0.2
p-Cresol*	ug/L	10 CSR 80-3 App II	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Phenol	ug/L	10 CSR 80-3 App II	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
p-Isopropyltoluene	ug/L	MDNR-Specified	12.3	<25	9.9	<5	<5	<5	<5	<5	<5	<5
Tetrahydrofuran	ug/L	MDNR-Specified	<100	2,060 E	2,030	<100	<100	<100	<100	<100	<100	<100
Toluene	ug/L	10 CSR 80-3 App I+II	21	<25	9.7	<5	<5	<5	<5	<5	<5	<5
Xylenes, Total	ug/L	10 CSR 80-3 App I+II	12.2	<25	26.8	<5	<5	<5	<5	<5	<5	<5

Notes:

** p-Cresol reported by laboratory as m+p-Cresols.*

E: Tetrahydrofuran concentration exceeded the calibration range. The reported result is estimated for PZ-104-SD.

According to the laboratory, the PZ-104-SD VOC samples were diluted 10x based on historic concentrations; however the PZ-104-SD Duplicate sample was a blind duplicate. Therefore, the duplicate samples was not diluted prior to analysis by the laboratory.

Table 2
Anticipated Assessment Sampling Schedule
Bridgeton Landfill, LLC

Second Quarter (May) 2017 Assessment Monitoring Event

Constituent	Constituent Type	PZ-104-SS	PZ-104-SD	PZ-104-KS	PZ-209-SS	PZ-209-SD	PZ-210-SS	PZ-210-SD	PZ-211-SS	PZ-211-SD
Inorganic Constituents										
Arsenic, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Barium, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Beryllium, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Cadmium, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Chromium, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Cobalt, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Copper, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Lead, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Nickel, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Selenium, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Sulfide	10 CSR 80-3 App II	•	•	•	•	•	•	•	•	•
Vanadium, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Zinc, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Organic Constituents										
1,2,4-Trimethylbenzene	MDNR-Specified	•	•	•	•	•	•	•	•	•
1,2-Dichlorobenzene	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
1,2-Dichloroethane	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
1,3,5-Trimethylbenzene	MDNR-Specified	•	•	•	•	•	•	•	•	•
1,4-Dichlorobenzene	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
1-Chlorobutane	MDNR-Specified	•	•	•	•	•	•	•	•	•
4-Methyl-2-pentanone	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Acetone	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Benzene	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Ethylbenzene	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Isopropylbenzene	MDNR-Specified	•	•	•	•	•	•	•	•	•
Methyl Ethyl Ketone	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Methyl-tert-butyl Ether	MDNR-Specified	•	•	•	•	•	•	•	•	•
PCB Aroclor 1221	10 CSR 80-3 App II	•	•	•	•	•	•	•	•	•
p-Cresol*	10 CSR 80-3 App II	•	•	•	•	•	•	•	•	•
Phenol	10 CSR 80-3 App II	•	•	•	•	•	•	•	•	•
p-Isopropyltoluene	MDNR-Specified	•	•	•	•	•	•	•	•	•
Tetrahydrofuran	MDNR-Specified	•	•	•	•	•	•	•	•	•
Toluene	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•
Xylenes, Total	10 CSR 80-3 App I+II	•	•	•	•	•	•	•	•	•