Sewer Acct.#: **1003803000**

Company: **BRIDGETON LANDFILL LLC**

Address: **13570 St. Charles Rock Road**

City: **Bridgeton**

State and Zip: **MO 63044**

Industry ID	File Code	File Description
17931	31	INDUSTRY OVERFLOW

ACCOUNT NUMBER: **10038030-00**

COMPANY NAME: **BRIDGETON LANDFILL**

CORRESPONDENCE

should be 01-26-09 - 10-25-12

FROM 10-19-10 THRU 10-23-12

X CORRESPONDANCE LOCATED IN ~~OVERFLOW FILE~~

archive files

INDUSTRY OVERFLOW

CB

Mr. Chris Bulmahn
Associate Engineer
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

CB
12-7

October 23, 2012

Dear Mr. Bulmahn:

Third Quarter 2012 Self-Monitoring Report,
Bridgeton Landfill, LLC. Discharge Permit No. 0511559802-2

10038030 00

Bridgeton Landfill, LLC. is submitting the Third Quarter 2012 leachate sampling and analysis report for the Bridgeton Landfill. On September 18, 2012 and September 19, 2012, landfill personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Wastewater Discharge Permit No. 0511559802-2 (Permit). The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, of Indianapolis, Indiana.

Laboratory analytical results indicate that the detected level of Zinc for sampling point 008 exceeded the permitted limitation of 3.0 mg/L in the September 18-19, 2012 sample. Included with this letter is the analytical data report provided by Heritage Environmental Services, LLC. associated with that sample collection. All other constituents analyzed during the Third Quarter 2012 monitoring event had concentrations within the limitations of the Permit. The following table lists the detected Zinc concentration and the constituent's permitted maximum effluent level at sampling point 008:

Outfall	Parameter	Result	Permitted Daily Average Limitation
Outfall 008	Zinc (Total)	3.5 mg/L	3.0 mg/L

The Bridgeton Landfill notified MSD of the permitted discharge exceedance in a telephone call placed on October 9, 2012 and with a follow-up letter submitted on October 10, 2012 in accordance with the Permit. On October 17, 2012 MSD issued the Bridgeton Landfill a Notice of Violation (NOV) for the exceedance of Zinc in the September 18-19, 2012 sample.

Per the Permit, the Bridgeton Landfill collected a resample for Zinc to confirm that the leachate discharge is in compliance with the permitted limitation. The resample was collected on October 15 and 16, 2012 as a 24-hour composite and shipped to Heritage Environmental Services, LLC for analysis. Additional samples for Zinc will be collected as requested by MSD in the NOV letter. All resampling results will be provided to MSD as they become available. The Bridgeton Landfill will continue to inspect and maintain all leachate collection and treatment systems to preclude any discharges that exceed permitted limitations.

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13570 St. Charles Rock Road
Bridgeton, MO 63044

Telephone (314) 744-8190
Fax (314) 739-2588

In addition to the Permit required sample analysis for the Third Quarter 2012, the Bridgeton Landfill collected an additional instant grab sample for Benzene on September 19, 2012. This sample was required by MSD in a Notice of Potential Violation letter that was issued to the Bridgeton Landfill on September 6, 2012. The letter detailed benzene analytical results from a series of leachate samples collected on the dates of June 25, 26, and 27, 2012 at sampling point 008. According to the letter Benzene concentrations from these samples exceeded the gas/vapor toxic screening level and may allow for a potential violation of MSD Ordinance 12559, Article V, Section One.A.8. which addresses sewer atmospheric quality. Benzene was detected in the resample at a concentration of 0.080 mg/L which is below that constituent's gas/vapor toxic screening level of 0.14 mg/L. The laboratory analytical report for the Benzene sample collection is included in Attachment 3.

The MSD Self-Monitoring Report Forms are provided as Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Third Quarter 2012 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. during the Third Quarter 2012 Sampling event of September 18-19, 2012. Attachment 4 provides analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records for the Bridgeton Landfill for July, August, and September 2012.

Please contact David Vasbinder, Environmental Manager at 314-744-8166, or myself at 314-744-8190 if you have any questions or comments.

Sincerely,

BRIDGETON LANDFILL, LLC.

Bryan K. Sehie
Environmental Specialist

Cc: *John Haasis, St. Louis County Department of Health*
Linda Wegrzyn, Missouri Department of Natural Resources

Attachments: *Attachment 1 – MSD Industrial User Self-Monitoring Reports*
Attachment 2 – Calculation of Discharged Activity
Attachment 3 – Heritage Environmental Laboratories, LLC, Analytical Report
Attachment 4 – TestAmerica, Inc. Analytical Report
Attachment 5 – Monthly Leachate Discharge Volume Records at Bridgeton Landfill

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

CB 12-17

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC.

Permit No: 0511559802-2 Effective Date: 12/1/2010 Expiration Date: 11/30/2015

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐(JAN-MAR) ☐ (APR-JUNE) ☑(JULY-SEPT) ☐ (OCT-DEC)

Samples Collected By: **Bryan Sehie**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmercia Laboratories, Inc.**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨		008						
DATES ON WHICH SAMPLES WERE COLLECTED ⇨		9/18/2012 and 9/19/2012						
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨		1015, 1430, 1850, 1015						
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW	***	M	131,698					GPD
Biochemical Oxygen Demand	***	C	6800					mg/L
Chemical Oxygen Demand	***	C	15000					mg/L
pH Acidic (<7)	5.5	G	6.53					SU
pH Basic (≥7)	11.5	G						SU
Temperature	60	G	32.4					Deg C
Total Suspended Solids	***	C	1300					mg/L
Ammonia (as N)	***	C	940					mg/L
Arsenic (Total)	0.4	C	NR					mg/L
Cadmium (Total)	0.7	C	NR					mg/L
Chromium (Total)	5	C	NR					mg/L
Copper (Total)	2.7	C	0.029					mg/L
Lead (Total)	0.4	C	NR					mg/L
Mercury (Total)	0.01	C	NR					mg/L
Nickel (Total)	2.3	C	0.037					mg/L
Zinc (Total)	3	C	3.5		NOV sent		10-17-12 CB	mg/L
Total Toxic Organics	5.844	G	NR					mg/L
Oil and Grease (Total)	200	G	8.7					mg/L
Gross Alpha	***	C	6 ± 78					pCi/L
Gross Beta	***	C	331 ± 74					pCi/L
Gross Gamma (as Cesium-137)	***	C	0.5 ± 5.6					pCi/L
Radium-226	***	C	13.1 ± 2.7					pCi/L

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Radium-228	***	C	7.3 ± 2.7					pCi/L
Uranium	***	C	BDL					ug/L

Notes: BDL = Below Detection Limit
NR = Not required during this monitoring event

You must complete and sign the certification statements on the second page.

INDUSTRIAL USER SELF MONITORING REPORT PAGE 2

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following.
Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS**.

B	NO CHANGE IN WASTEWATER DISCHARGE AT ACTIVE CONNECTIONS WITHOUT SAMPLE POINTS
	For permit special conditions that waive monitoring at active connection points which are not specified as sample points in your permit, you are required to make the following certification: BKS I certify, since the last discharge monitoring report, there has been no change in the character of wastes discharged at those active connection points which are not specified in my permit.

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below:
	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.
	Print or type name of signing official: **Bryan Sehie**
	Title: **Environmental Specialist** Telephone: **(314)-744-8190**
	Signature: Bryan K. Sehie Date: 10/23/12

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC 1003803000

Permit No.: 0511559802-2

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: [ ](Jan-Mar) [ ](Apr-Jun) X [ ](July-Sept) [ ](Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	2.49×10^{8}
Gross Beta	1.38×10^{10}
Gross Gamma (as Cesium -137)	2.08×10^{7}
Radium - 226	5.45×10^{8}
Radium - 228	3.04×10^{8}
Total Activity Discharged :	1.38×10^{10}

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. **Certification of Compliance with Federal regulations**

[X] I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. **Radioactive Materials Discharge Report Certification**

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: Bryan Sehie

Title: Environmental Specialist Telephone: 314-744-8190

Signature: Bryan Sehie Date: 10/23/12

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.B.2 of the Bridgeton Landfill MSD Permit (Permit 0511559802-2), each quarterly discharge report shall specify the activity discharged to the sewer system by radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Third Quarter 2012 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\text{Discharged Activity} = \text{Activity Concentration} \times \text{Discharged Volume}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Third Quarter 2012 monitoring period.

Constituent	Result	Units
Gross Alpha	6 ± 78	pCi/L
Gross Beta	331 ± 74	pCi/L
Gross Gamma (as Cesium -137)	0.5 ± 5.6	pCi/L
Radium – 226	13.1 ± 2.7	pCi/L
Radium – 228	7.3 ± 2.7	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Third Quarter 2012 monitoring period:

- July 2012: 3,265,458 gallons
- August 2012: 4,741,692 gallons
- September 2012: 2,977,736 gallons

Summation of the monthly volumes provides the total volume discharged during the Third Quarter 2012 period:

$$3{,}265{,}458\ gal + 4{,}741{,}692\ gal + 2{,}977{,}736\ gal = 10{,}984{,}886\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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$$10{,}984{,}866\ gal \times \frac{3.785\ L}{gal} = 41{,}577{,}794\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Alpha, multiply the activity concentration by the discharged volume:

$$\frac{6\ pCi}{L} \times 41{,}577{,}794\ L = 2.49 \times 10^{8}\ pCi$$

Similarly, for Gross Beta:

$$\frac{331\ pCi}{L} \times 41{,}577{,}794\ L = 1.38 \times 10^{10}\ pCi$$

Similarly, for Gross Gamma (as Cesium-137):

$$\frac{0.5\ pCi}{L} \times 41{,}577{,}794\ L = 2.08 \times 10^{7}\ pCi$$

Similarly, for Radium-226:

$$\frac{13.1\ pCi}{L} \times 41{,}577{,}794\ L = 5.45 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{7.3\ pCi}{L} \times 41{,}577{,}794\ L = 3.04 \times 10^{8}\ pCi$$

Summation of the five (5) results yields the total discharged activity for the Third Quarter 2012 reporting period:

$$2.49 \times 10^{8}\ pCi + 1.38 \times 10^{10}\ pCi + 2.08 \times 10^{7}\ pCi + 5.45 \times 10^{8}\ pCi + 3.04 \times 10^{8} = 1.38 \times 10^{10}\ pCi$$

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01083366

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS
7901 W Morris St Indianapolis, IN 46231
www.heritage-enviro.com (800)827-4374 Fax:(317)486-5095

11550

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MSD 023887

Submitter Name: MO-ALLIED-BRIDGETON LANDFILL (8945)
Project Name: LEACHATE - BRIDGETON LANDFILL (5586)
Z Quote No: Z139877
PO No: 4337-12001-9 (2012)
Heritage Contact CHRISTOPHER BOYLE (317)390-3128

Sample Turn Around Time — Accelerated TAT subject to Additional Charge.
Standard: X Rush Date ___/___/___ (Mo Day Yr) — Date must be Accepted and Approved by Lab.

Sampled By: Brian Sehie

Analyses Requested (Note special detection limits or methods)

Comments: BOD: Short Hold
VOC analysis Report for Benzene only

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample Type (Matrix): Water, Soil, Oil, Sludge, Swipe, Other	Number of Containers	HEM(O&G)	COD, NH3	BOD, TSS	Cu, Ni, Zn	VOCs - Report Benzene only	Remarks:	Lab use only Sample No.
9/18-19/12	Varies AM/PM	X		Leachate Outfall 008 (composite)	water	4		1	2	1		~~Composite sample~~ time 9/18/12 1015, 1430 and 1850	1461868
9/19/12	1015 AM/PM		X	Leachate Outfall 008 grab	water	6	2				4	clx 9/19/12 @ 1015	1
	AM/PM												
	AM/PM												
	AM/PM												
	AM/PM												
	AM/PM												
	AM/PM												
	AM/PM												
	AM/PM												
	AM/PM												

Ref: Z139877 OUTFALL Date: 18Jul12 Wgt: 20.00 LBS Dep:
DV: 0.00
SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00
Svc: STANDARD OVERNIGHT

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Brian Sehie	9/19/12 1242	Fed Ex
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Received for Lab by: (Signature)	Date 9/20/12	Temperature 1.3 (1.4) °C
	Time 0925	Received On Ice Yes / No

Laboratory use only	Yes	No	NA
Custody seals intact on cooler?	✓		
C. seals intact on containers?			✓
Broken containers?		✓	
COC agree with sample labels?	✓		
Correct containers for testing?	✓		
Headspace issues acceptable?	✓		
Holding time(s) acceptable?	✓		
Preservative pH's acceptable?	✓		
Was pH left unadjusted?	✓		

Send Report To:
Co: BRIDGETON LANDFILL
Addr: 13570 ST. CHARLES ROCK RD
BRIDGETON, MO 63044
Attn: BRIAN SEHIE
Phone: (314)739-1919
Fax: (314)739-2588
email: bsehie@repubicservices.com

HERITAGE
ENVIRONMENTAL SERVICES

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	20-SEP-12	A961868
	Completed	**PO Number**
	09-OCT-12	4337-12001-9 (2012)
	Printed	**Sampled**
	09-OCT-12	19-SEP-12 10:15

Report To	Bill To
BRIAN SEHIE BRIDGETON LANDFILL 13570 ST. CHARLES ROCK RD BRIDGETON, MO 63044	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: LEACHATE OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 63614
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
PERMIT: 830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B-2001 NELAC:Y

Analyst: D. DICKERSON Analysis Date: 21-SEP-12 09:35 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	6800	200	mg/L

1:100 Dilution.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: S. BOXUM Analysis Date: 26-SEP-12 11:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	15000	250	mg/L

1:25 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: C. ANYANWUTAKU Analysis Date: 21-SEP-12 15:00 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	1300	1	mg/L

Filtered less sample due to sample matrix.

AMMONIA DISTILLATION SM4500-NH3 B - 1997

Analyst: E. FAY Analysis Date: 23-SEP-12 07:30 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL

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FINAL VOLUME	250		mL

The prep analyst decreased the initial weight/volume due to the matrix of the sample and/or a strong odor.

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D - 1997 NELAC:Y

Analyst: E. FAY Analysis Date: 24-SEP-12 09:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM4500-NH3 B - 1997 P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	940	25	mg/L

1:50 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 04-OCT-12 11:00 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	8.7	5.0	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: K. KAMARA Analysis Date: 21-SEP-12 09:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 22-SEP-12 07:19 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	29	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 22-SEP-12 07:19 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	37	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 22-SEP-12 07:19 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	3500	20	ug/L

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Sample ID: A961868 LEACHATE OUTFALL 008

PURGEABLE AROMATICS BY GC/MS (BTEX) SW846-8260B NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 27-SEP-12 14:31 Instrument: GC/MS VOA Test: O560.3.0

Parameter	Result	Det. Limit	Units
BENZENE	80	10	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	100		% Rec
TOLUENE-D8	95		% Rec
4-BROMOFLUOROBENZENE	110		% Rec

1:10 Dilution

Prep Method SW846-5030B Purge and Trap

PH6

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

Unable to analyze at lower dilution due to sample matrix. Sample foamed.

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B - 2000 NELAC:Y

Analysis Date: 19-SEP-12 Instrument: FIELD Test: G607.2.0

Parameter	Result	Det. Limit	Units
PH	6.53	0.1	Std. Units

FIELD TEMPERATURE SM 2550 B-2000 NELAC:N

Analysis Date: 19-SEP-12 Instrument: FIELD Test: G603.1.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	32.4		Degrees C

Sample Comments

Sample was received on ice at temperature 1.3 C.
Sample chain of custody number 11550.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

Approved by: CHRISTINE SARKAN 09-OCT-12

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Republic Services Inc

Client Sample ID: LEACHATE OUTFALL 008

TOTAL Metals

Lot-Sample #...: F2I190459-001 Matrix.....: WATER
Date Sampled...: 09/19/12 10:15 Date Received..: 09/19/12

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2270088						
Uranium	ND	2.0	ug/L	MCAWW 200.8	09/26-10/09/12	MWMJC1AE
		Dilution Factor: 2		Analysis Time..: 02:26		

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Republic Services Inc

Client Sample ID: LEACHATE OUTFALL 008

Radiochemistry

Lab Sample ID: F2I190459-001
Work Order: MWMJC
Matrix: WATER

Date Collected: 09/19/12 1015
Date Received: 09/19/12 1525

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 2265068	Yld % 85
Radium 228	7.3		2.7	1.0	3.5	09/21/12	10/09/12
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 2265067	Yld % 97
Radium (226)	13.1		2.7	1.0	1.2	09/21/12	10/09/12
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 2277044	Yld %
Cesium 137	0.5	U	5.6	20.0	10	10/03/12	10/04/12
Gross Alpha/Beta EPA 900				pCi/L		Batch # 2279088	Yld %
Gross Alpha	6	U	78	3	150	10/08/12	10/12/12
Gross Beta	331		74	4	70	10/08/12	10/12/12

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NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Bridgeton Landfill, LLC	Project Manager: Bryan Sehie	Date: 9/19/12	Chain of Custody Number: 192425
Address: 13570 St. Charles Rock Rd.	Telephone Number (Area Code)/Fax Number: 314-744-8190	Lab Number	Page 1 of 1
City: Bridgeton; State: MO; Zip Code: 63044	Site Contact: Bryan Sehie	Lab Contact: Lynn Fussner	
Project Name and Location (State): Bridgeton Landfill Quarterly Leachate	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.: 4337			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Gamma Gross	Gross A/B	Ra 226	Ra 228	Uranium	Special Instructions/ Conditions of Receipt
Leachate Outfall 008	9/18/12	1015, 1430, 1850		X					2				X	X	X	X	X	24-hr Composite Sm
	9/19/12	1015																

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☒ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: B. Sehie	9/19/12	1525	1. Received By: B.	9/19/12	1525
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

RECEIVED OCT 25 2012 DIVISION OF ENVIRONMENTAL COMPLIANCE

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica St. Louis

MSD 023893

2012

Bridgeton Landfill LLC
Monthly Leachate Outfall Report

10/23/2012 Filed in 15.4

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OCT 25 2012
DIVISION OF
ENVIRONMENTAL COMPLIANCE

MSD 023894

Month	Net Meter Readeing	Precipitation Inches	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January		2.34	2/1/2012	4,472,356	144,270	597,908.56	5,979.09
February		1.99	2/29/2012	3,474,632	112,085	464,522.99	4,645.23
March		3.33	4/2/2012	1,343,131	43,327	179,562.97	1,795.63
April		7.25	5/1/2012	1,366,368	44,076	182,669.52	1,826.70
May		1.60	5/31/2012	1,586,897	51,190	212,152.01	2,121.52
June	Reset to 0	1.97	6/29/2012	4,733,512	152,694	632,822.46	6,328.22
July	3,265,458	0.72	7/31/2012	3,265,458	105,337	436,558.56	4,365.59
August	8,007,150	2.52	8/30/2012	4,741,692	152,958	633,916.04	6,339.16
September	10,984,886	3.03	10/1/2012	2,977,736	96,056	398,093.05	3,980.93
October					0	0.00	0.00
November					0	0.00	0.00
December					0	0.00	0.00

Notes: In July of 2012, started recording hour meter readings due to countinuious readings needed for other reports.

Doug Mendoza

1003803000

From: Doug Mendoza
Sent: Friday, October 19, 2012 8:33 AM
To: Brian G. Gibson
Cc: Kathleen Wahoff; Roger Rowan; Tom Boehm; Christopher J. Bulmahn
Subject: FW: Special samples at Bridgeton Landfill, to check for VOLATILE organics

Brian,

I don't know why, but I didn't ask for volatile organics & MEK to be sampled when you did the other sampling at Bridgeton Landfill!

Please set up special sampling:

- **BRIDGETON LANDFILL LLC [1003803000], SP007 (14" pipe into Westlink Pump Station Wetwell, on S side).**
- **Need 2 samples taken, on 2 separate days, ASAP.**
- **Only need these pollutants analyzed**
  - **Pollutant Group " Volatile Orgs-not incl Acro/Acryl & 2-chloroethyl" T996000**
  - **Methyl Ethyl Ketone (2-butanone) T433000**

Kathy/Roger – Note that I am also asking that MEK be analyzed for these samples. I believe it is from the same vials and method as the normal volatiles, but that we don't normally quantify MEK. Please let me know if something else/different needs to be requested.

Kathy/Roger – Also, would you please analyze these ASAP once they are received?

Sorry!
---Doug

From: Doug Mendoza
Sent: Friday, October 19, 2012 7:45 AM
To: Roger Rowan
Cc: Kathleen Wahoff; Mary Midkiff
Subject: RE: Special samples at Bridgeton Landfill, to check for organics

D'oh, you're right!

Well now I'm going to have to request two samples be collected for volatiles. My screw up.

Doug

From: Roger Rowan
Sent: Friday, October 19, 2012 6:47 AM
To: Doug Mendoza
Cc: Kathleen Wahoff
Subject: RE: Special samples at Bridgeton Landfill, to check for organics

Doug, I do not believe the samples had VOA so they would not have been analyzed for 2-Butanone.

Roger

From: Doug Mendoza
Sent: Thursday, October 18, 2012 10:57 AM
To: Kathleen Wahoff
Cc: Roger Rowan; Mary Midkiff; Christopher J. Bulmahn; Tom Boehm
Subject: FW: Special samples at Bridgeton Landfill, to check for organics

Lab folks,

I'm sorry to ask you this so late, but I forgot to see about it before the samples were collected.

For two samples below, 95573(10/04/12) and95572(10/05/12), do you happen to have data showing what the levels of 2-butanone (methyl ethyl ketone) were?

And for the other two samples below, 95452(10/10/12) and 95450(10/11/12), are you able to include analysis for 2-butanone (methyl ethyl ketone)? If so, would you please???

---Doug

From: Brian G. Gibson
Sent: Monday, October 15, 2012 8:08 AM
To: Doug Mendoza
Subject: RE: Special samples at Bridgeton Landfill, to check for organics

SMN:
95573(10/04/12)
95572(10/05/12)
95452(10/10/12)
95450(10/11/12)

From: Doug Mendoza
Sent: Monday, October 01, 2012 11:16 AM
To: Brian G. Gibson
Cc: Rob G Daly; Nora C. Estopare; Christopher J. Bulmahn; Tom Boehm
Subject: Special samples at Bridgeton Landfill, to check for organics

Brian,

Please set up special sampling:

- **BRIDGETON LANDFILL LLC [1003803000], SP007 (14" pipe into Westlink Pump Station Wetwell, on S side).**
- **Need 4 samples taken, 2 this week, 2 next week**
- **Only need these pollutants analyzed**
  - **Pollutant Group "Semi-Volatile Organics – Acids" T995000**
  - **Pollutant Group "Semi-Volatile Organics – Base/Neutrals" T994000**
  - **Single Pollutant "Total Phenols" T257000**
- **You may want to collect one of these samples as part of your normal quarterly monitoring.**

Rob Daly informed us that MSD workers still complain of nausea, etc. even after ventilation occurs, when working around the pump station that Bridgeton Landfill discharges into. The four gas meters are showing that those gas levels are safe, but there are of course myriad other pollutants that can affect people. While there is no way to test for every conceivable pollutant that could be discharged, we can focus on likely potential culprits.

Doug Mendoza

Bridgeton Landfill
1003873000

From: Doug Mendoza
Sent: Thursday, October 18, 2012 10:46 AM
To: Rob G Daly
Cc: Nora C. Estopare; Christopher J. Bulmahn; Tom Boehm; Brian G. Gibson; Ryan Sabourin; Mark Bright; John Lodderhose
Subject: RE: Westlakes PS- Sampling (Bridgeton Landfill-Organics)

Rob,

Sampling was conducted (and completed) on 10/4/12, 10/5/12, 10/11/12, and 10/12/12.

It generally takes 2 weeks for our lab to perform the requested organic analyses. I would expect to have results at the end of next week, but possibly not until early the week of 10/29/12.

Preliminary results for the 10/4 and 10/5 results indicate high levels of Total Phenols. I had indicated earlier that our limits on this are based on water quality criteria, not due to health concerns. Although the stuff is going to smell and could be nauseating. Individual organics all appear to be low (at least those that we can test for). I'll give more details when we get all our results, and can then discuss in more detail what it all means.

---Doug

From: Rob G Daly
Sent: Wednesday, October 17, 2012 9:34 AM
To: Doug Mendoza
Cc: Nora C. Estopare; Christopher J. Bulmahn; Tom Boehm; Brian G. Gibson; Ryan Sabourin; Mark Bright
Subject: Westlakes PS- Sampling (Bridgeton Landfill-Organics)

Doug

Just wondering if I could get a status update on testing results? I know if you had them we would have heard form you- but just wanted to see if I could get a date on my calendar as to when you might expect the results- which I think would like to then review at your place with Mark Bright and Ryan if possible.

Any info appreciated. Many thanks.

Rob Daly, EIT
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

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Cc: Rob G Daly; Nora C. Estopare; Christopher J. Bulmahn; Tom Boehm
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I looked at Bridgeton Landfill's discharges from earlier this year that showed possible fume toxicity concerns. The last problem showed the following:

DATE	TIME	SAMPLE POINT	SAMPLE TYPE	POLLUTANT	GAS/VAPOR TOXIC SCREENING LEVEL	VALUE FOUND
05-15-12	1000	008	Grab	Benzene	0.14 mg/L	0.770 mg/L
05-15-12	1000	008	24-hr comp	Phenol	1024 mg/L	7.700 mg/L
05-15-12	1000	008	24-hr comp	P-Cresol	NA	3.100 mg/L
05-15-12	1000	008	Grab	Chlorobenzene	2.31 mg/L	0.072 mg/L
05-15-12	1000	008	Grab	1,2-Dichloroethane	1.05 mg/L	0.018 mg/L
05-15-12	1000	008	Grab	Ethyl Benzene	1.59 mg/L	0.130 mg/L
05-15-12	1000	008	Grab	Toluene	1.36 mg/L	0.170 mg/L

We also included that "2-Butanone was present in elevated levels but is not part of the constituents that make up the TTO sample."

FYI, 2-Butanone is more commonly known at Methyl Ethyl Ketone (MEK), and was present at 20 mg/L.

Furthermore, I did some research, and developed Gas/Vapor Toxic Screening Levels:

- Methyl Ethyl Ketone: 289 mg/L. So the sample was well below this – which makes sense, since people use it all the time.
- P-Cresol (4-methylphenol): 309 mg/L. Again, the sample was well below this.

With the ventilation that is occurring, these toxic organics shouldn't be problems either. However, we need to see if they are still being discharged.

Rob – One other item of note, more for your info. than anything. MSD normally only tests for Toxic Organics once/year, due to costs. However, for landfills and hospitals we test to Total Phenols every time we sample. These are commonly found in their discharges. The discharge limit is 21 mg/L, and is based on water quality at treatment plants, not worker safety concerns. MSD's 7/10/12 sample showed total phenols from Bridgeton Landfill of 19.976 mg/L, and MSD's 5/13/12 sample showed 19.63 mg/L. Prior to that, total phenols was running 2-5 mg/L. I mention this because phenols are pretty smelly. Think of Campho-Phenique and cleaners with phenols in them. But they are not especially toxic. Campho-Phenique is actually used on sores, etc. It's just not supposed to be taken internally.

--Doug

Metropolitan St. Louis Sewer District

Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

October 17, 2012

David Vasbinder
Environmental Manager
BRIDGETON LANDFILL LLC
13570 St. Charles Rock Road
Bridgeton, MO 63044

RE: NOTICE OF VIOLATIONS – WASTEWATER DISCHARGE PERMIT NO. 0511559802 - 2
For premise at: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Dear Mr. Vasbinder:

Thank you for your October 9, 2012, letter and your October 11, 2012, phone call advising us of the results of recent wastewater discharge sampling. The letter accompanied the response letter to the September 6, 2012 Notice of Violation. Unfortunately, your letter and report identified the following violations:

VIOLATIONS OF DISCHARGE LIMITATIONS:

DATE	TIME	SAMPLE POINT	SAMPLE TYPE	POLLUTANT	DISCHARGE LIMIT	LIMIT TYPE	VALUE FOUND
09-19-12	1015	008	24-hr comp	ZINC (T)	3.0 mg/L	DM	3.5 mg/L

008 = 1/2" flexible sampling hose 5' above grade off of an 8" discharge pipe on N side of AST
(T) = Total substance
mg/L = milligrams per liter
DM = Daily Maximum

REQUIRED ACTION/RESPONSE:

As we discussed in a phone conversation with Bryan Sehie with BRIDGETON LANDFILL on October 15, 2012, the Zinc exceedance will not be covered under the voluntary Administrative Compliance Order that is being drafted.

1. Submit a report of corrective actions, to ensure compliance with MSD limitations for **Zinc**. In the report:

    a. Indicate which corrective actions are initiated and which are still to come
    b. Include plans for additional sampling to verify a return to compliance

2. Submit all additional sampling results to MSD. Sample collection must occur as follows:

    a. Sample at the identified sampling points
    b. Collect composite samples for **Zinc**
    c. Take samples at times representative of normal operations

3. Refer to the enclosure for additional information on:

    a. Potential enforcement actions should noncompliance continue
    b. Percentages applicable to Significant Noncompliance, when planning for additional sampling

4. Submit your response no later than **November 10, 2012**.

Thank you for helping us to comply with state and federal regulations. If you have any questions, please contact me at 314.436.8721.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Chris Bulmahn

Chris Bulmahn
Associate Engineer

Enclosures: SNC enclosure, SP map

cc: Doug Mendoza
Tom Boehm

Doug Mendoza

Bridgeton Landfill
1003803000

From: Brian G. Gibson
Sent: Monday, October 15, 2012 8:08 AM
To: Doug Mendoza
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--Doug

Facility ID: 1003803000 | Name: BRIDGETON LANDFILL LLC [1003803000] | SIU: ☑ | Class: Special Handling / Billing | All Facilities

In Results

Start Date: 07/01/2012 End Date: Apply

Events | Inspections | Sampling | Limit Comp | Violations | SMDE | Gen Rpts | **Notifications** | Surcharge | Surcharge Export

Notification Type	Date
Self-Mon Discharge Viol - 1 Day Notice	10/11/2012

Text

Bryan Sehle called to notify that they had exceeded the Zinc limit. He will submit the results with the 3rd qtr SMR. CB CB

Oct 12, 2012 10:40:05 AM

MSD 023903

Mr. Chris Bulmahn
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

October 9, 2012

Dear Mr. Bulmahn:

Notification of Exceedance of Permitted Discharge Limitation – Zinc, and Notification of Return to Compliant Vapor Screening Level - Benzene
Bridgeton Landfill, LLC 1003803000
Discharge Permit No. 0511559802-2

As required by Leachate Discharge Permit No. 0511559802-2, and as a follow up to a telephone message placed by myself to you this afternoon, Bridgeton Landfill, LLC is submitting this letter of Notification of Exceedance of Permitted Discharge Limitation for the Third Quarter 2012 leachate sample collection event at Outfall 008. Leachate samples were collected from sampling point 008 on the dates of September 18-19, 2012 as an instant grab, or composite sample, dependent on constituent type, and in accordance with the permit.

Data entered 10-16 CB.

Laboratory analytical results indicate that the detected level of Zinc (3.5 mg/L) at sampling point 008 exceeded the permitted discharge limitation of 3.0 mg/L at the time of sample collection. Included with this letter is the analytical data report provided by Heritage Environmental Services, LLC of Indianapolis, IN.

Historically the landfill leachate contains Zinc concentrations that are within permitted discharge limitations. A resample of leachate from outfall 008 for Zinc is scheduled to be conducted at the Bridgeton Landfill as soon as reasonably possible to confirm the Third Quarter 2012 result. Results obtained from this resample will be reported to the Metropolitan St. Louis Sewer District (MSD) once they are available.

Return to Compliant Vapor Screening Level

On September 6, 2012 MSD issued a letter of Notice of Potential Violations – Wastewater Discharge Permit No. 0511559802-2 to the Bridgeton Landfill. The letter detailed Benzene analytical results from a series of leachate samples collected on the dates of June 25, 26, and 27, 2012 at the Bridgeton Landfill Outfall 008. Benzene detections in the aforementioned samples were described as having concentrations in excess of the gas/vapor toxic screening level (0.14 mg/L) which may have the potential to create an atmosphere within the Westlake Pump Station unsuitable for MSD personnel to enter. A resample for Benzene was collected in conjunction with the Third Quarter 2012 leachate monitoring event, using instant grab methodology, on September 19, 2012. Analytical results from this collection report a Benzene concentration of 0.08 mg/L in the leachate discharge from the Bridgeton Landfill.

If you have any questions regarding the information provided in this letter, please contact me at 314-744-8190 at your earliest convenience.

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OCT 11 2012
DIVISION OF
ENVIRONMENTAL COMPLIANCE

13570 St. Charles Rock Road
Bridgeton, MO 63044

Telephone (314) 744-8190
Fax (314) 739-2588

Sincerely,
BRIDGETON LANDFILL, LLC

Bryan K. Sehie
Environmental Specialist

Attachments: *Heritage Environmental Services, LLC, Laboratory Analytical Report*

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OCT 11 2012
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HERITAGE
ENVIRONMENTAL SERVICES

Quality Assurance Report # 63614

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 W. Morris St.
Indianapolis, IN 46231
(317)243-8304

Visit us at : www.heritage-enviro.com
Review your results at : www.accessheritage.com

Report To:
BRIDGETON LANDFILL
13570 St. Charles Rock Rd
Bridgeton, MO 63044

Attn : Brian Sehie

Submitter/Project Information
Submitter : MO-ALLIED-BRIDGETON LANDFILL
Project : LEACHATE - BRIDGETON LANDFILL

Christopher Boyle - Project Manager
chris.boyle@heritage-enviro.com
(317)390-3128

NELAP ACCREDITED TNI LABORATORY

RECEIVED
OCT 11 2012
DIVISION OF ENVIRONMENTAL COMPLIANCE

People providing solutions

HERITAGE
ENVIRONMENTAL SERVICES

Sample Summary

COC ID# : 11550

COC Doc # : 01083366

Date/Time Sampled	Date Complete	LabSampleID	Client SampleID
09/19/2012 10:15:00	10/09/2012	A961868	LEACHATE OUTFALL 008

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OCT 11 2012
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OCT 11 2012
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MSD 023908

01083366

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

7901 W Morris St Indianapolis, IN 46231
www.heritage-enviro.com (800)827-4374 Fax:(317)486-5095

11550

Submitter Name: MO-ALLIED-BRIDGETON LANDFILL (8945)

Project Name: LEACHATE - BRIDGETON LANDFILL (5586)

Z Quote No: Z139877

PO No: 4337-12001-9 (2012)

Heritage Contact CHRISTOPHER BOYLE (317)390-3128

Sample Turn Around Time

Standard: X Rush Date ___/___/___ Mo Day Yr

Accelerated TAT subject to Additional Charge.

Date must be Accepted and Approved by Lab.

Sampled By: Bryan Sehie

Analyses Requested (Note special detection limits or methods)

Comments: BOD Short Hold

VOC analysis Report for Benzene only

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample Type (Matrix): Water, Soil, Oil, Sludge, Swipe, Other	Number of Containers	HEM(O&G)	COD, NH3	BOD, TSS	Cu, Ni, Zn	VOCs - Report Benzene only	Remarks:	Lab use only Sample No.
9/18-19/12	Varies AM PM	X		Leachate Outfall 008 (composite)	water	4		1	2	1		Composite sample time 9/18/12 1015, 1430 and 1850	1961868
9/19/12	1015 AM PM		X	Leachate Outfall 008 grab	water	6	2				4	also 9/19/12 @ 1015	1
	AM PM												
	AM PM												
	AM PM												
	AM PM												
	AM PM												
	AM PM												
	AM PM												
	AM PM												

Ref: Z139877 OUTFALL Date: 18Jul12 SHIPPING: 0.00
Dep: Wgt: 20.00 LBS SPECIAL: 0.00
HANDLING: 0.00
DV: 0.00 TOTAL: 0.00
Svcs: STANDARD OVERNIGHT

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Bryan Sehie	9/19/12 1242	Fed Ex
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Received for Lab by: (Signature)	Date 9/20/12	Temperature 1.3 (1.4) °C
	Time 0900	Received On Ice Yes / No

Laboratory use only	Yes	No	NA
Custody seals intact on cooler?	✓		
C. seals intact on containers?			✓
Broken containers?		✓	
COC agree with sample labels?	✓		
Correct containers for testing?	✓		
Headspace issues acceptable?	✓		
Holding time(s) acceptable?	✓		
Preservative pH's acceptable?	✓		
Was pH left unadjusted?	✓		

Send Report To:

Co: BRIDGETON LANDFILL
Addr: 13570 ST. CHARLES ROCK RD
BRIDGETON, MO 63044
Attn: BRIAN SEHIE
Phone: (314)739-1919
Fax: (314)739-2588
email: bsehie@republicservices.com

HERITAGE
ENVIRONMENTAL SERVICES

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	20-SEP-12	A961868
	Completed	**PO Number**
	09-OCT-12	4337-12001-9 (2012)
	Printed	**Sampled**
	09-OCT-12	19-SEP-12 10:15

Report To	Bill To
BRIAN SEHIE BRIDGETON LANDFILL 13570 ST. CHARLES ROCK RD BRIDGETON, MO 63044	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: LEACHATE OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 63614
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
PERMIT: 830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B-2001 NELAC:Y

Analyst: D. DICKERSON Analysis Date: 21-SEP-12 09:35 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	6800	200	mg/L

1:100 Dilution.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: S. BOXUM Analysis Date: 26-SEP-12 11:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	15000	250	mg/L

1:25 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: C. ANYANWUTAKU Analysis Date: 21-SEP-12 15:00 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	1300	1	mg/L

Filtered less sample due to sample matrix.

AMMONIA DISTILLATION SM4500-NH3 B - 1997

Analyst: E. FAY Analysis Date: 23-SEP-12 07:30 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL

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Sample ID: A961868 LEACHATE OUTFALL 008

FINAL VOLUME	250		mL

The prep analyst decreased the initial weight/volume due to the matrix of the sample and/or a strong odor.

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D - 1997 NELAC:Y

Analyst: E. FAY Analysis Date: 24-SEP-12 09:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM4500-NH3 B - 1997 P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	940	25	mg/L

1:50 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 04-OCT-12 11:00 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	8.7	5.0	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: K. KAMARA Analysis Date: 21-SEP-12 09:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 22-SEP-12 07:19 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	29	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 22-SEP-12 07:19 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	37	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 22-SEP-12 07:19 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	3500	20	ug/L

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Sample ID: A961868 LEACHATE OUTFALL 008

PURGEABLE AROMATICS BY GC/MS (BTEX) SW846-8260B NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 27-SEP-12 14:31 Instrument: GC/MS VOA Test: O560.3.0

Parameter	Result	Det. Limit	Units
BENZENE	80	10	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	100		% Rec
TOLUENE-D8	95		% Rec
4-BROMOFLUOROBENZENE	110		% Rec

1:10 Dilution

Prep Method SW846-5030B Purge and Trap

PH6

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

Unable to analyze at lower dilution due to sample matrix. Sample foamed.

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B - 2000 NELAC:Y

Analysis Date: 19-SEP-12 Instrument: FIELD Test: G607.2.0

Parameter	Result	Det. Limit	Units
PH	6.53	0.1	Std. Units

FIELD TEMPERATURE SM 2550 B-2000 NELAC:N

Analysis Date: 19-SEP-12 Instrument: FIELD Test: G603.1.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	32.4		Degrees C

Sample Comments

Sample was received on ice at temperature 1.3 C.
Sample chain of custody number 11550.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

Approved by: CHRISTINE SARKAN 09-OCT-12

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MSD 023911

Christopher J. Bulmahn

Bridgeton Landfill LLC
10038030 00

From: Christopher J. Bulmahn
Sent: Monday, October 08, 2012 7:53 AM
To: 'Vasbinder, David'; 'Sehie, Bryan'
Cc: Doug Mendoza; Tom Boehm; Christopher J. Bulmahn
Subject: Bridgeton Landfill draft AO
Attachments: Bridgeton Landfill AO.docx

Gentlemen,

I have attached a draft of the Administrative Order (AO) that we would like you to review. The AO format has been taken from the EPA's manuals on compliance orders for pretreatment programs. The Findings and Order sections have been modified to reflect your voluntary situation. After receiving feedback, we will proceed with updating the issuance dates and forward it to our Legal Department for signature before sending the final copy to you.

Thank you,

Chris Bulmahn
Associate Engineer
Environmental Engineering
Metropolitan St. Louis Sewer District
10 E. Grand Avenue
St. Louis, MO 63147-2913
(P) 314-436-8721
(F) 314-436-8753
cbulmahn@stlmsd.com

THE METROPOLITAN ST. LOUIS SEWER DISTRICT

ADMINISTRATIVE COMPLIANCE ORDER

IN THE MATTER OF

BRIDGETON LANDFILL LLC
13570 St. Charles Rock Road
Bridgeton, MO 63044

LEGAL AUTHORITY

The following findings are made and order issued pursuant to the authority vested in the Executive Director of the Metropolitan St. Louis Sewer District, under Article IX of MSD's Sewer Use Ordinance No. 12559. This order is based on findings of violations of the conditions of MSD's Sewer Use Ordinance No. 12559 and the Industrial Wastewater Discharge Permit No. 0511559802 issued under Article VI of the Ordinance.

FINDINGS

1. Bridgeton Landfill discharges wastewater into the sanitary sewer system of the Metropolitan St. Louis Sewer District.

2. Bridgeton Landfill is a "significant industrial user" as defined in 40 CFR 403.3(t).

3. Bridgeton Landfill is subject to the terms and limitations contained in MSD's Sewer Use Ordinance No. 12559 which has been in full force and effect at all times during the periods referenced herein.

4. Bridgeton Landfill is subject to the terms and limitations contained in Industrial Wastewater Discharge Permit No. 0511559802 which has been in full force and effect at all times during the periods referenced herein.

5. Pursuant to the above-referenced ordinance and permit, data is routinely collected by or submitted to MSD on the compliance status of Bridgeton Landfill.

6. These data show that, beginning not later than May 15, 2012 and continuing through the present, Bridgeton Landfill has violated the terms of its wastewater discharge permit and the sewer use ordinance in the following manner:

    a. Violations of the discharge limit for Total Toxic Organics
    b. Exceedances of the gas/vapor toxic screening levels for individual toxic organic chemicals, which indicate potential violations of discharge prohibitions against toxic gases, vapors, or fumes in the sewer atmosphere at levels in excess of applicable exposure levels.
    c. Violations of the discharge prohibition against any flammable or explosive substance which creates an atmosphere within the wastewater system which exceeds ten percent of the Lower Explosive Limit.
    d. Violations of the discharge prohibitions against toxic gases, vapors, or fumes in the sewer atmosphere at levels in excess of applicable exposure levels – specifically for hydrogen sulfide and carbon monoxide.

e. Violations of the discharge prohibition against any substance in quantities which either alone or in combination with other wastes results in the formation within the wastewater system of any malodor, foam, or other condition which is capable of creating a public nuisance or hazard to life or interferes with operation and maintenance of the system – specifically for foam.

7. Bridgeton Landfill was informed of the above exceedances and prohibition violations via Notices of Violation from MSD dated: June 11, 2012; June 20, 2012; September 6, 2012; and September 11, 2012

8. Bridgeton Landfill is investigating and implementing additional procedures and pretreatment options to eliminate the above discharge and prohibition violations, as contained in letters from Bridgeton Landfill dated September 12, 2012 and September 20, 2012. The additional procedures and pretreatment options include:
   a. Installation and operation of a supplemental enclosed flare as well as a supplemental "candlestick" utility flare within the landfill's gas control and collection system,
   b. Design and operation of air moving / monitoring engineering controls at the landfill's outfall to the MSD sewer system within the Westlake Pump Station, and
   c. Installation and operation of a foam suppression agent.

ORDER

THEREFORE, BASED ON THE ABOVE FINDINGS, **BRIDGETON LANDFILL** IS HEREBY ORDERED TO:

ITEM	ACTION	COMPLIANCE DATE
1.	Submit to MSD a schedule of actions for design, installation, and operation of the procedures and pretreatment options identified in Finding 8, to the extent that such information has been determined.	November 15, 2012
2.	MSD will review the schedule of actions in action item 1 within 7 days of receipt, and advise Bridgeton Landfill of any deficiencies. Bridgeton Landfill shall correct any deficiencies and include additional scheduling information that has been determined since the previous submittal. Bridgeton Landfill shall submit to MSD this revised schedule of actions.	December 15, 2012
3.	MSD will review the schedule of actions in action item 2 within 7 days of receipt, and advise Bridgeton Landfill of any deficiencies. Bridgeton Landfill shall correct any deficiencies and include additional scheduling information that has been determined since the previous submittal, to be considered as a final schedule. Bridgeton Landfill shall submit to MSD this revised schedule of actions. If a final schedule is not yet determined, Bridgeton Landfill shall inform MSD of the reasons, and may request an extension of the time to submit a final schedule.	January 15, 2013
4.	MSD will review the schedule of actions in action item 3	February 15, 2013

	within 7 days of receipt, and advise Bridgeton Landfill of any deficiencies. Bridgeton Landfill shall correct any deficiencies and obtain MSD approval of the schedule of actions. The approved schedule of actions shall be incorporated into this order the same as if fully set out herein.	
5.	Submit a report demonstrating compliance with the limits and prohibitions contained in the wastewater discharge permit and the sewer use ordinance for Bridgeton Landfill. At a minimum, compliance shall be demonstrated through wastewater sampling for the conditions referenced in Finding 6, at SP007 or at SP008, on at least two separate days.	Not later than 21 days following the final compliance date contained in the approved schedule of actions
6.	Submit a report of progress to MSD for each Action Item. Each report shall state the status of compliance with the Action Item due and shall explain the reasons for any delays, actions being taken to return to schedule and the expected date the missed Action Item will be completed.	Not later than 14 days following the compliance date for each action.

All reports and notices required by this order shall be sent, in writing, to the following address:

Christopher J. Bulmahn
Environmental Engineer
Metropolitan St. Louis Sewer District
10 East Grand Avenue
St. Louis, MO 63147

This order does not constitute a waiver of Bridgeton Landfill's wastewater discharge permit or MSD's Sewer Use Ordinance, which remain in full force and effect. The Metropolitan St. Louis Sewer District reserves the right to seek any and all remedies available to it under Article IX of Sewer Use Ordinance No. 12559 for any violation, including those cited in this order.

Failure to comply with the requirements of this order shall constitute a further violation of MSD's Sewer Use Ordinance and may subject Bridgeton Landfill to civil or criminal penalties or such other enforcement response as may be appropriate.

This order, entered this ___ day of ____, ____, shall be effective upon receipt by Bridgeton Landfill.

THE METROPOLITAN ST. LOUIS SEWER DISTRICT

By_____

Susan Myers
General Counsel
2350 Market Street
St. Louis, MO 63103-2555

Metropolitan St. Louis Sewer District

Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

October 2, 2012

David Vasbinder
Environmental Manager
BRIDGETON LANDFILL LLC
13570 St. Charles Rock Road
Bridgeton, MO 63044

Dear Mr. Vasbinder:

We have reviewed Bryan Sehie's letter dated September 20, 2012 to Chris Bulmahn at MSD. In the letter, he expressed several concerns regarding Bridgeton Landfill's industrial wastewater discharge permit regarding pretreatment standards and reporting requirements. He also requested that MSD amend or modify the permit regarding these issues. In addition, he requested an expedited compliance agreement be developed by MSD for Bridgeton Landfill.

Please find MSD's investigation and response to the various issues below. We have arranged them in a bullet point format simply for clarity and organization of the subjects.

Pretreatment:

- The letter states that Bridgeton Landfill's permit does not specify that Bridgeton Landfill incorporates a pretreatment system.
    - This is true. MSD does not require specific methods of pretreatment. We only require that discharge limitations and conditions be met. How those are met is up to the permittee.
    - However, if a pretreatment system is in place, your permit General Condition D prohibits bypassing any portion of the pretreatment facilities except under certain circumstances.
- It appears there may be some confusion by Bridgeton Landfill of what is meant by "pretreatment."
    - The letter states, "Bridgeton Landfill applies a vacuum to the leachate tank while recirculating the volume of leachate within in an effort to extract excess gases; however the leachate itself is not treated. The Bridgeton Landfill does not filter, dilute, process, or chemically alter any volume of leachate collected and discharged to MSD."
        - While the term "pretreatment" is not specifically defined in your permit, General Condition L of your (and all) permits specifies, "Unless the context specifically indicates otherwise, the permittee is subject to all provisions of District Sewer Use Ordinance 12559."
        - In Ordinance 12559, Article II, 44, "PRETREATMENT means the reduction or elimination of pollutants or the alteration of the nature of pollutant properties in wastewater to a more acceptable state prior to discharge to the District's wastewater system."
        - Bridgeton Landfill is reducing or eliminating excess gases from its leachate, gases that result in prohibited wastewater discharges if left in the leachate. Thus, Bridgeton Landfill is pretreating its wastewater.
    - The letter also states, "There is no mention of a categorical pretreatment standard for the Bridgeton Landfill leachate discharge in the permit."
        - "Categorical pretreatment standards" is a single term from EPA regulations that refers to "National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories." (See 40 CFR 403.6)
        - There is no mention of a categorical pretreatment standard because no categorical pretreatment standards apply to your landfill.

Notification requirements:

- The letter states, "In the event of a future malfunction of any component of the leachate tank system the Bridgeton Landfill accedes to notify MSD Environmental Compliance personnel within 24 hours of becoming aware of the issue."
- Please note that a malfunction likely will result in a problem discharge (see General Condition C of your permit) to MSD.
    - For problem discharges, **Bridgeton Landfill must immediately notify MSD**, by telephone, of the incident, and provide a written report within five business days.
        - General Condition M of your permit provides telephone numbers and addresses for the notifications. Note that MSD's dispatcher should be called for emergency notifications outside normal business hours.
    - The same notification requirements apply for unanticipated pretreatment bypasses, as cited in the September 11, 2012 violation notice. See also Article VIII, Section Eight of Ordinance 12559 for further details.

Permit amendment or modification:

- Specific pretreatment systems for permittees are not individually listed in the permits.
    - All necessary requirements regarding the systems are contained in the permit general conditions or Ordinance 12559.
- All reporting requirements are already contained in either the permit general conditions or Ordinance 12559.
    - The reporting requirements specific to MSD's September 11, 2012 violation notice are addressed above, and are contained in the permit general conditions or Ordinance 12559.

Administrative Compliance Order:

- Because a definitive schedule of actions cannot yet be determined, we will issue the order so that the first items in the schedule of actions will be to submit a more definitive schedule.
- This was discussed with Mr. Sehie on October 1, 2012.
- We will be sending you the order in a separate mailing as soon as possible.

For your convenience, we have enclosed a copy of Ordinance 12559. You may also obtain a copy from MSD's website, www.stlmsd.com.

Thank you for helping us comply with federal and state regulations. If you have any questions, please contact me at 314.436.8717.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Douglas M. Mendoza, P.E.
Manager of Industrial Pretreatment

Enclosure: Ordinance 12559

cc: Bryan Sehie, Bridgeton Landfill
Chris Bulmahn, MSD
Tom Boehm, MSD

Christopher J. Bulmahn

From: Doug Mendoza
Sent: Monday, October 01, 2012 11:16 AM
To: Brian G. Gibson
Cc: Rob G Daly; Nora C. Estopare; Christopher J. Bulmahn; Tom Boehm
Subject: Special samples at Bridgeton Landfill, to check for organics

Brian,

Please set up special sampling:

- **BRIDGETON LANDFILL LLC [1003803000], SP007 (14" pipe into Westlink Pump Station Wetwell, on S side).**
- **Need 4 samples taken, 2 this week, 2 next week**
- **Only need these pollutants analyzed**
  - **Pollutant Group "Semi-Volatile Organics – Acids" T995000**
  - **Pollutant Group "Semi-Volatile Organics – Base/Neutrals" T994000**
  - **Single Pollutant "Total Phenols" T257000**
- **You may want to collect one of these samples as part of your normal quarterly monitoring.**

Rob Daly informed us that MSD workers still complain of nausea, etc. even after ventilation occurs, when working around the pump station that Bridgeton Landfill discharges into. The four gas meters are showing that those gas levels are safe, but there are of course myriad other pollutants that can affect people. While there is no way to test for every conceivable pollutant that could be discharged, we can focus on likely potential culprits.

I looked at Bridgeton Landfill's discharges from earlier this year that showed possible fume toxicity concerns. The last problem showed the following:

DATE	TIME	SAMPLE POINT	SAMPLE TYPE	POLLUTANT	GAS/VAPOR TOXIC SCREENING LEVEL	VALUE FOUND
05-15-12	1000	008	Grab	Benzene	0.14 mg/L	0.770 mg/L
05-15-12	1000	008	24-hr comp	Phenol	1024 mg/L	7.700 mg/L
05-15-12	1000	008	24-hr comp	P-Cresol	NA	3.100 mg/L
05-15-12	1000	008	Grab	Chlorobenzene	2.31 mg/L	0.072 mg/L
05-15-12	1000	008	Grab	1,2-Dichloroethane	1.05 mg/L	0.018 mg/L
05-15-12	1000	008	Grab	Ethyl Benzene	1.59 mg/L	0.130 mg/L
05-15-12	1000	008	Grab	Toluene	1.36 mg/L	0.170 mg/L

We also included that "2-Butanone was present in elevated levels but is not part of the constituents that make up the TTO sample."

FYI, 2-Butanone is more commonly known at Methyl Ethyl Ketone (MEK), and was present at 20 mg/L.

Furthermore, I did some research, and developed Gas/Vapor Toxic Screening Levels:

- Methyl Ethyl Ketone: 289 mg/L. So the sample was well below this – which makes sense, since people use it all the time.
- P-Cresol (4-methylphenol): 309 mg/L. Again, the sample was well below this.

With the ventilation that is occurring, these toxic organics shouldn't be problems either. However, we need to see if they are still being discharged.

Rob – One other item of note, more for your info. than anything. MSD normally only tests for Toxic Organics once/year, due to costs. However, for landfills and hospitals we test to Total Phenols every time we sample. These are commonly found in their discharges. The discharge limit is 21 mg/L, and is based on water quality at treatment

plants, not worker safety concerns. MSD's 7/10/12 sample showed total phenols from Bridgeton Landfill of 19.976 mg/L, and MSD's 5/13/12 sample showed 19.63 mg/L. Prior to that, total phenols was running 2-5 mg/L. I mention this because phenols are pretty smelly. Think of Campho-Phenique and cleaners with phenols in them. But they are not especially toxic. Campho-Phenique is actually used on sores, etc. It's just not supposed to be taken internally.

--Doug

Mr. Chris Bulmahn
Associate Engineer
Metropolitan St. Louis Sewer District
10 East Grand Avenue
St. Louis, MO 63147-2913

September 20, 2012

Dear Mr. Bulmahn:

Response to Notice of Violation for Prohibited Discharges and Treatment Requirements, Bridgeton Landfill, LLC. Discharge Permit No. 0511559802-2

The Bridgeton Landfill, LLC. is respectfully submitting this response to the letter of Notification of Violation for Prohibited Discharges and Treatment Requirements – Wastewater Discharge Permit No. 0511559802-2 (NOV) that was issued to the Bridgeton Landfill by the Metropolitan St. Louis Sewer District (MSD) on September 11, 2012 via email. The NOV states that the Bridgeton Landfill is in contravention of MSD Ordinance 12559, Article V, Section 1.A.2, and MSD Ordinance 12559, Article V, Section 1.A.8, whereas the MSD-operated Westlake Pump Station contained, within the closed vault, a substandard atmosphere for MSD personnel entry due to elevated levels of; the Lower Explosive Limit (LEL), the gases hydrogen sulfide and carbon monoxide, as well as an oxygen deficiency.. The NOV further states that the Bridgeton Landfill is in violation of MSD Ordinance 12559, Article V, Section 1.A.14, for two recently documented foam overflows at the Westlake Pump Station on the dates of August 16 and 28, 2012, allegedly as a result of landfill leachate discharge. The NOV lastly states that the Bridgeton Landfill is in violation of MSD Ordinance 12559, Article V, Section 3.D, for failure to notify MSD that a "key piece of equipment" on the "pretreatment system" had malfunctioned. A list of quantitative data was provided for the preceding atmospheric constituents and foam overflow magnitudes in the NOV.

The Bridgeton Landfill utilizes an 89,000-gallon capacity Aquastore liquid tank to contain, recirculate, atomize, and subsequently extract hydrogen sulfide, methane, and carbon monoxide gases from the leachate produced within the facility prior to discharging. In order to maintain complete leachate collection system operation, and in response to previous correspondence with MSD, a Standard Operating Procedure (SOP) was prepared for use onsite to ensure that all aspects of the leachate tank system were monitored for performance and operated in a manner that best controlled the possibility of prohibited discharges at the Westlake Pump Station. The Leachate Tank SOP was provided to MSD on July 23, 2012. On August 21, 2012, with the acknowledgement of MSD, a spare centrifugal leachate tank recirculation pump was purchased. This pump is stored on site so that, in the event of a malfunction in the pump currently operating at the tank, a swap can performed immediately, thus eliminating extended periods of down-time. The Bridgeton Landfill is currently in the process of permitting with the St. Louis County Department of Health to install and operate a supplemental enclosed flare as well as a supplemental "candlestick" utility flare within our gas control and collection system. This will allow for an increase in vacuum capacity at the leachate tank, which in turn should provide increased effectiveness and improved consistency of gas removal within. In the event of a vacuum loss at the leachate tank due to a total gas collection and control system malfunction, the Bridgeton Landfill has acted proactively and constructed a carbon vessel filtration system as a redundancy. The system provides vacuum to the leachate tank and filters extracted gases through a series of granular activated carbon vessels. This system is powered independently of the primary landfill gas collection and control system therefore vacuum is applied to the tank at all times.

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13570 St. Charles Rock Road
Bridgeton, MO 63044

Telephone (314) 744-8190
Fax (314) 739-2688

The Bridgeton Landfill's MSD Wastewater Discharge Permit No. 0511559802-2 does not specify that the Bridgeton Landfill incorporates a pretreatment system. As mentioned above, the Bridgeton Landfill applies a vacuum to the leachate tank while recirculating the volume of leachate within in an effort to extract excess gases; however the leachate itself is in not treated. The Bridgeton Landfill does not filter, dilute, process, or chemically alter any volume of leachate collected and discharged to MSD. It is unclear, per the Permit that any pretreatment conditions apply to the facility. Further, there is no mention of a categorical pretreatment standard for the Bridgeton Landfill leachate discharge in the permit. In addition, the Bridgeton Landfill contends that, although the primary recirculation pump experienced a malfunction, proper procedures were followed per the Bridgeton Landfill Leachate Tank System SOP in that: during the daily leachate system inspection of August 10, 2012 the pump was noted to be failing due to bearing wear. The Bridgeton Landfill leachate system contractor was contacted immediately and the pump was removed and taken to the contractor's shop to be rebuilt. The pump was rebuilt in the interim then was reinstalled and put back into service on August 20, 2012. During the period in which the pump was being rebuilt the Bridgeton Landfill operated the redundant carbon vessel filtration system to increase gas extraction capability. In the event of a future malfunction of any component of the leachate tank system the Bridgeton Landfill accedes to notify MSD Environmental Compliance personnel within 24 hours of becoming aware of the issue.

SO?

← ORD. 12559 DEF'D

X

✓ ← NO, IMMEDIATELY

Per a meeting between Bridgeton Landfill managers and MSD Environmental Compliance Division personnel on August 24, 2012 at the MSD office, telephone conversations on September 4 and 6, 2012, and consistent email correspondence with MSD Environmental Engineering Associate, Tom Boehm, MSD is aware of the ongoing cooperation of the Bridgeton Landfill with both the MSD Environmental Compliance, and Operations Divisions on the design and installation of air moving / monitoring engineering controls at the landfill's outfall to the MSD sewer system within the Westlake Pump Station. The purpose of the air monitoring / moving system will be to identify air quality issues within the Westlake Pump Station, and purge the vault when conditions hazardous to MSD personnel potentially entering the station would arise. With these controls in place the pump station will be accessible for regular service or emergency response by MSD operations personnel at any time. Once a design consensus is made between the parties involved the Bridgeton Landfill will fund the construction and operation of these engineering controls. Subsequent emails and a meeting at the Westlake Pump Station on August 30, 2012 between the Bridgeton Landfill and MSD Environmental Compliance/Operations personnel have furthered the planning of the engineering control implementation. On September 4, 2012 MSD granted the Bridgeton Landfill access to the Westlake Pump Station to allow Bridgeton Landfill personnel the opportunity to conduct research on discharge 4-gas concentrations. The Bridgeton Landfill is, as of the date of this letter, comparing in-vault 4-gas readings with leachate tank system operating parameters in order to understand how to most effectively reduce prohibited discharges. An additional meeting between the aforementioned parties is scheduled for the week of September 24, 2012 at the MSD office to discuss the fine details of the Bridgeton Landfill efforts to provide the infrastructure upgrading engineering controls to MSD. Pending this meeting, the Bridgeton Landfill will initiate the corrective measures agreed upon as promptly as reasonably possible. ←

The 4-gas monitoring data collected by MSD personnel is provided in the NOV for the dates of August 13-15, 21, 23, 30, and September 4, 2012. Bridgeton Landfill personnel were present to observe the 4-gas monitoring events on the dates of August 15, 21, 23, 30, and September 4, 2012. The sampling methodology consists of opening one of the Westlake Pump Station Vault doors and immediately collecting a 4-gas reading via an approximate 10 ft. polyethylene tube which is lowered into the vault. No purge efforts or time allotment for equilibrium were observed as part of this methodology therefore

NOV IS FOR ATMOSPHERE, NOT "VENTED" ATMOSPHERE

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a non-representative sample is collected. On two occasions, Bridgeton Landfill personnel requested that the Westlake Pump Station vault door be allowed to remain open for a period of approximately 10 minutes, and a new 4-gas sample be collected. The results from this effort indicated that hydrogen sulfide and LEL readings had returned to zero, while a level of oxygen in the low 20 percentile range was present. Levels of carbon monoxide remained extant in the vault at decreased values after this time period. This methodology indicated that after a brief venting period that the pump station vault would be acceptable for MSD personnel entry. Bridgeton Landfill personnel have also observed MSD Operations Division personnel employing a portable air mover at the vault, prior to performing maintenance, in which an acceptable 4-gas monitor sample was collected ensuingly. The preceding aspects were not mentioned in the NOV.

The NOV specifies that on the dates of August 16 and 28, 2012, the respective amounts of foam, approximately 100 gallons, and approximately 10 gallons, were observed to have escaped from the pump station. Historically, the Bridgeton Landfill has not experienced any foam related issues. During the foaming event that occurred on August 28, 2012, Bridgeton Landfill personnel, along with MSD Environmental Compliance, and Emergency Response Division personnel observed foam flowing from the vault inlet into which the landfill leachate discharge accrues. Upon further investigation foam was also discovered in the sewer discharge piping manhole which is ascribed to operations south of the Bridgeton Landfill on Corporate Exchange Drive. Regardless of the source of the foam, the Bridgeton Landfill is ardently researching anti-foaming options to be actualized at the pump station. The Bridgeton Landfill has consulted with a wastewater treatment professional and ordered a foam suppression agent for trial. The suppressor is a concentrated liquid that controls the surface tension of wastewater and therefore eliminates the presence of foam and prevents further formation. The agent can be deployed as a low velocity drip-feed through a simple electric pump. Pilot testing of the foam suppression agent is scheduled to begin during the week of September 17, 2012.

The Bridgeton Landfill will continue to inspect and maintain the implemented systems in order to reduce, eliminate, and prevent any prohibited discharges. The Bridgeton Landfill will also adhere to the abovementioned dates for implementation of future corrective actions. Current systems will continue to be monitored per the SOP, and when implemented, corrective actions will be periodically evaluated for effectiveness.

The Bridgeton Landfill respectfully requests that MSD expedite the establishment of the Compliance Commitment Agreement discussed in the August 24, 2012 meeting to allow the facility sufficient time to remedy each of the issues at hand. The Bridgeton Landfill also requests clarification of the MSD Wastewater Discharge Permit No. 0511559802-2 in writing, as an amendment or modification thereof, in regard to site-specific pretreatment standards and reporting requirements. Such clarification will prevent further miscommunication between Bridgeton Landfill and MSD.

If you have any questions regarding the information provided in this letter, please contact David Vasbinder, Environmental Manager, at 314-744-8166, or myself at your earliest convenience.

Sincerely,
BRIDGETON LANDFILL, LLC.

Bryan K. Sehie

Bryan K. Sehie
Environmental Specialist

RECEIVED
SEP 24 2012
DIVISION OF
ENVIRONMENTAL COMPLIANCE

Bridgeton Landfill LLC
1003803000

Tom Boehm

From: Tom Boehm
Sent: Tuesday, September 11, 2012 10:47 AM
To: bsehie@republicservices.com
Subject: FW: Bridgeton LF prohibited discharge + failure to notify of PT problem w0907 d100812.docx

Bryan,

The following is the NOV that was discussed late last week. I was asked to send it to you via email so that you could begin preparing your response ASAP as discussed with Chris last Friday.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Margie Irvin
Sent: Tuesday, September 11, 2012 8:41 AM
To: Doug Mendoza; Bruce Litzsinger; John Lodderhose; Tom Boehm
Cc: Rob G Daly; Jay Kniker; Mark Bright; Vince Stollhans; Ryan Sabourin
Subject: Bridgeton LF prohibited discharge + failure to notify of PT problem w0907 d100812.docx

September 11, 2012

Dave Vasbinder
Environmental Manager
BRIDGETON LANDFILL LLC
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

RE: NOTICE OF VIOLATION FOR PROHIBITED DISCHARGES AND TREATMENT REQUIREMENTS
For premise at: 13570 St. Charles Rock Rd., 63044, MSD Permit #: 0511559802

Dear Mr. Vasbinder:

As you are aware from recent conversation, MSD crews recently visited the Westlake Pump Station (WPS) to conduct routine maintenance but were unable to enter the vault because of a substandard atmosphere that included elevated levels of hydrogen sulfide (H_2S) and Carbon Monoxide (CO), an oxygen (O_2) deficiency, and readings of over 10% of the Lower Explosive Limit (LEL). MSD atmospheric recordings are listed below.

- 08/13/12, H_2S – 35 ppm, CO – +OL (monitor spiked), LEL – 45%, O_2 – 11%
- 08/14/12, H_2S – 6 ppm, CO – 21 ppm, LEL – 15%, O_2 – 10%
- 08/15/12, H_2S – 15 ppm, CO – 750 ppm, LEL – 13%, O_2 – 15.6%
- 08/21/12, H_2S – 30 ppm, CO – +OL (monitor spiked), LEL – 30%, O_2 – 9%
- 08/23/12, H_2S – 22 ppm, CO – 832 ppm, LEL – 25%, O_2 – 8%
- 08/30/12, H_2S – 10 ppm, CO – 50 ppm, LEL – 10%, O_2 – 15%
- 09/04/12, H_2S – 38 ppm, CO – 90 ppm, LEL – 14%, O_2 – 28%

MSD crews recently documented foam overflows at our Westlake Pump Station.

- 08/16/12, ~100 gallons of foam was observed to have escaped containment of the pump station and had soaked into the soil.
- 08/28/12, ~10 gallons of foam was observed to have escaped containment of the pump station.

You also had a failure of a key piece of equipment on your pretreatment system which you did not notify us, that took more than a week to correct.

VIOLATIONS OF DISCHARGE PROHIBITIONS:

No person shall discharge or cause to be discharged into any sanitary or combined sewer any of the following substances:

Ordinance 12559, Article V, Section 1.A.2, states:

> Any flammable or explosive substance which creates an atmosphere within the wastewater system which exceeds ten percent of the Lower Explosive Limit (LEL) as designated by the National Fire Protection Association except for excursions allowed pursuant to the continuous monitoring provisions in Article X, Section Two, Subsection C; or which causes the discharge into the District's sewer to have a closed cup flashpoint of less than 140 degrees Fahrenheit (60 degrees Celsius). Closed cup flashpoints shall be determined using the test methods specified in 40 CFR 261.21.

Ordinance 12559, Article V, Section 1.A.8, states:

> Any water or waste which by itself or by interaction with other materials, emits toxic gases, vapors or fumes into the atmosphere of any area of the wastewater system at levels in excess of Permissible Exposure Limits (PEL) established for air-borne contaminants by the Occupational Safety and Health Administration (OSHA) or Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH).

Ordinance 12559, Article V, Section 1.A.14, states:

> No person shall discharge or cause to be discharged into sanitary or combined sewer any substance in quantities which either alone or in combination with other wastes results in the formation within the wastewater system of any malodor, **foam**, or other condition which is capable of creating a public nuisance or hazard to life or interferes with operation and maintenance of the system.

VIOLATIONS OF TREATMENT REQUIREMENTS:

Any pretreatment facility bypass shall be reported to the Director in accordance with the provisions of Article VIII, Section Eight of this Ordinance.

Ordinance 12559, Article V, Section 3.D., states:

> Bypassing: No industrial user may bypass any portion of its pretreatment facilities except when necessary to perform essential maintenance and then only if the bypass will not result in a violation of applicable pretreatment standards or requirements. Any other pretreatment facility bypass is prohibited unless:
>
> (1) The bypass is unavoidable to prevent loss of life, personal injury or severe property damage;
> (2) There are no feasible alternatives to the bypass; and
> (3) In the event of an anticipated bypass, advance notice is provided to the Director.

REQUIRED ACTION/RESPONSE:

The NOV sent on June 20, 2012 addressed one of the same issues above. We are aware of your efforts to this point to enhance the leachate collection and pretreatment system so that your effluent is of better quality that will not cause atmospheric deficiencies and overflows. Recent discussions with you have centered on installing air monitoring equipment and possibly air moving equipment to the Westlake Pump Station located across Boenker Ln (aka Old St. Charles Rd.) on the south side of your facility. While this is a way to mitigate the effects within the pump station, it is not acceptable as a plan to prevent violations of prohibited discharges.

- Submit a detailed plan of action to prevent violations of atmospheric conditions. Include a timeline for the procurement and installation of the air monitoring equipment that was discussed above.

- Submit a detailed plan of action to eliminate the discharge that is causing the foaming overflow at the pump station that may cause operational problems within our sanitary sewer main. The plan must eliminate the violations of our prohibitions.

- Submit a report of corrective actions, to ensure compliance with MSD reporting requirements. In the report include actions to ensure that any future notification requirements are met within one business day of your becoming aware of them.

- Regardless of the implementation status of your plan, any future costs that are related to MSD's additional equipment or time needed to perform maintenance at or near the WPS may be billed to **BRIDGETON LANDFILL LLC** as referenced in Ordinance 12559, Article IX, Section Six – Recovery of Costs, which states:

  > The Director may bill a user for the costs incurred by the District for any work undertaken pursuant to the provisions of Article IV, Section Two; Article VII, Section Nine; Article IX, Section Three and Article X, Section Nine of this Ordinance. Failure to pay any such assessed costs within thirty (30) days after demand has been made shall constitute a violation of this Ordinance, enforceable under the provisions of this Article, or notice may be filed in the Office of the Recorder of Deeds of the City or County having jurisdiction, as the case may be, whereupon such bill shall become a lien against the property involved.

- Submit your response no later than **October 8, 2012**.

MSD's Enforcement Response Plan requires MSD to initiate additional enforcement action, if necessary, to secure timely and effective compliance. This plan is an integral part of MSD's Pretreatment Program, required and approved by the Missouri Department of Natural Resources.

Thank you for helping us to comply with state and federal regulations. If you have any questions, please contact me at 314.436.8721.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Chris Bulmahn

Chris Bulmahn
Associate Engineer

cc: DEC: Doug Mendoza, Bruce Litzsinger, John Lodderhose, Tom Boehm
Operations: Rob Daly, Jay Kniker, Mark Bright, Vince Stollhans, Ryan Sabourin (Risk Mngt.)

Mr. Chris Bulmahn
Associate Engineer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

September 12, 2012

Dear Mr. Bulmahn:

Response to Notice of Potential Violation - Benzene,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-2

The Bridgeton Landfill, LLC. is respectfully submitting this response to the Metropolitan St. Louis Sewer District (MSD) letter of Notice of Potential Violations – Wastewater Discharge Permit No. 0511559802-2 that was issued on September 6, 2012. The letter details benzene analytical results from a series of leachate samples collected on the dates of June 25, 26, and 27, 2012 at the Bridgeton Landfill Outfall 008. Benzene detected in the samples of June 25, 26, and 27, 2012 was reported as having concentrations of 0.21 mg/L, 0.16 mg/L, and 0.32 mg/L, respectively. According to the letter the gas/vapor toxic screening level is 0.14 mg/L and concentrations found in the Bridgeton Landfill leachate samples may allow for a potential violation of MSD Ordinance 12559, Article V, Section One.A.8. which addresses sewer atmospheric quality.

Per our August 24, 2012 meeting at the MSD office, and our September 6, 2012 telephone conversation, MSD is aware of the ongoing cooperation of the Bridgeton Landfill with both the MSD Environmental Compliance, and Operations Divisions on the design and installation of air moving / monitoring engineering controls at the landfill's outfall to the MSD sewer system within the Westlake Pump Station. The purpose of the air monitoring / moving system will be to identify air quality issues within the Westlake Pump Station, and purge the vault when conditions hazardous to MSD personnel entering the station would arise. With these controls in place the pump station will be accessible for regular service or emergency response by MSD operations personnel at any time. Once a design consensus is made between the parties involved the Bridgeton Landfill will fund the construction and operation of these engineering controls.

Additionally, the Bridgeton Landfill utilizes an 89,000-gallon capacity Aquastore liquid tank to contain, recirculate, atomize, and subsequently extract gases from the leachate produced within the facility prior to discharging. The landfill has also purchased and additional leachate recirculation pump that will be readily available onsite, as a replacement, to minimize the amount of system down-time in the event of a pump failure. Furthermore, the Bridgeton Landfill is in the process of acquiring permitting for both; an additional enclosed flare and a supplemental "candlestick" utility gas collection and control flare to be constructed at the site. Once these flares are permitted and constructed they will provide additional vacuum capacity to the landfill and increase gas extraction ability and consistency at the leachate tank.

The Bridgeton Landfill plans to collect a resample for benzene, as instructed by the MSD letter, in conjunction with the 3rd Quarter 2012 Leachate sampling event. The sampling event is scheduled to occur within the month of September 2012. Analytical results from the collection will be presented to MSD as they become available to verify a return to compliance.

RECEIVED
SEP 24 2012
DIVISION OF
ENVIRONMENTAL COMPLIANCE

13570 St. Charles Rock Road
Bridgeton, MO 63044

Telephone (314) 744-8190
Fax (314) 739-2580

If you have any questions regarding the information provided in this letter, please contact David Vasbinder, Environmental Manager, at 314-744-8166, or myself at your earliest convenience.

Sincerely,
BRIDGETON LANDFILL, LLC.

Bryan K. Sehie
Environmental Specialist

RECEIVED
SEP 24 2012
DIVISION OF
ENVIRONMENTAL COMPLIANCE

Bridgeton Landfill
1003 80300

Tom Boehm

From: Sehie, Bryan <BSehie@republicservices.com>
Sent: Tuesday, September 04, 2012 10:59 AM
To: Tom Boehm
Cc: Vasbinder, David
Subject: RE: Agreement to notify us of overflow at the pump station

Good Morning Tom,

Per our meetings and in response to MSD's request, the Bridgeton Landfill submits this email as acceptance of that request. As requested by MSD the Bridgeton Landfill will, in the event of a sanitary sewer overflow, also referred to as bypass (SSO), report the occurrence to MSD, and perform clean-up activities required once MSD has properly documented the occurrence. Please contact me if you have any questions or comments.

Thank you,

Bryan Sehie

Bryan Sehie | Environmental Specialist | Republic Services, Inc.

13570 St. Charles Rock Rd. | Bridgeton, MO 63044

☎ 314.744.8190 314.443.0179

From: Tom Boehm [mailto:TCBOEH@stlmsd.com]
Sent: Friday, August 31, 2012 10:08 AM
To: Sehie, Bryan
Subject: Agreement to notify us of overflow at the pump station

Bryan,

As Joe suggested yesterday, please write a short separate email that states your company will report any overflow at the pump station that you see and wait for our representative to arrive and document it prior to cleaning it up .

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

Metropolitan St. Louis Sewer District

Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

September 11, 2012

Dave Vasbinder
Environmental Manager
BRIDGETON LANDFILL LLC
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

RE: NOTICE OF VIOLATION FOR PROHIBITED DISCHARGES AND TREATMENT REQUIREMENTS
For premise at: 13570 St. Charles Rock Rd., 63044, MSD Permit #: 0511559802

Dear Mr. Vasbinder:

As you are aware from recent conversation, MSD crews recently visited the Westlake Pump Station (WPS) to conduct routine maintenance but were unable to enter the vault because of a substandard atmosphere that included elevated levels of hydrogen sulfide (H_2S) and Carbon Monoxide (CO), an oxygen (O_2) deficiency, and readings of over 10% of the Lower Explosive Limit (LEL). MSD atmospheric recordings are listed below.

- 08/13/12, H_2S – 35 ppm, CO – +OL (monitor spiked), LEL – 45%, O_2 – 11%
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- 09/04/12, H_2S – 38 ppm, CO – 90 ppm, LEL – 14%, O_2 – 28%

MSD crews recently documented foam overflows at our Westlake Pump Station.

- 08/16/12, ~100 gallons of foam was observed to have escaped containment of the pump station and had soaked into the soil.
- 08/28/12, ~10 gallons of foam was observed to have escaped containment of the pump station.

You also had a failure of a key piece of equipment on your pretreatment system which you did not notify us, that took more than a week to correct.

VIOLATIONS OF DISCHARGE PROHIBITIONS:

<u>No person shall discharge or cause to be discharged into any sanitary or combined sewer any of the following substances</u>:

Ordinance 12559, Article V, Section 1.A.2, states:

> Any flammable or explosive substance which creates an atmosphere within the wastewater system which exceeds ten percent of the Lower Explosive Limit (LEL) as designated by the National Fire Protection Association except for excursions allowed pursuant to the continuous monitoring provisions in Article X, Section Two, Subsection C; or which causes the discharge into the District's sewer to have a closed cup flashpoint of less than 140 degrees Fahrenheit (60 degrees Celsius). Closed cup flashpoints shall be determined using the test methods specified in 40 CFR 261.21.

Ordinance 12559, Article V, Section 1.A.8, states:

> Any water or waste which by itself or by interaction with other materials, emits toxic gases, vapors or fumes into the atmosphere of any area of the wastewater system at levels in excess of Permissible Exposure Limits (PEL) established for air-borne contaminants by the Occupational Safety and Health Administration (OSHA) or Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH).

Ordinance 12559, Article V, Section 1.A.14, states:

> No person shall discharge or cause to be discharged into sanitary or combined sewer any substance in quantities which either alone or in combination with other wastes results in the formation within the wastewater system of any malodor, **foam**, or other condition which is capable of creating a public nuisance or hazard to life or interferes with operation and maintenance of the system.

VIOLATIONS OF TREATMENT REQUIREMENTS:

Any pretreatment facility bypass shall be reported to the Director in accordance with the provisions of Article VIII, Section Eight of this Ordinance.

Ordinance 12559, Article V, Section 3.D., states:

> Bypassing: No industrial user may bypass any portion of its pretreatment facilities except when necessary to perform essential maintenance and then only if the bypass will not result in a violation of applicable pretreatment standards or requirements. Any other pretreatment facility bypass is prohibited unless:
>
> (1) The bypass is unavoidable to prevent loss of life, personal injury or severe property damage;
> (2) There are no feasible alternatives to the bypass; and
> (3) In the event of an anticipated bypass, advance notice is provided to the Director.

REQUIRED ACTION/RESPONSE:

The NOV sent on June 20, 2012 addressed one of the same issues above. We are aware of your efforts to this point to enhance the leachate collection and pretreatment system so that your effluent is of better quality that will not cause atmospheric deficiencies and overflows. Recent discussions with you have centered on installing air monitoring equipment and possibly air moving equipment to the Westlake Pump Station located across Boenker Ln (aka Old St. Charles Rd.) on the south side of your facility. While this is a way to mitigate the effects within the pump station, it is not acceptable as a plan to prevent violations of prohibited discharges.

- Submit a detailed plan of action to prevent violations of atmospheric conditions. Include a timeline for the procurement and installation of the air monitoring equipment that was discussed above.

- Submit a detailed plan of action to eliminate the discharge that is causing the foaming overflow at the pump station that may cause operational problems within our sanitary sewer main. The plan must eliminate the violations of our prohibitions.

- Submit a report of corrective actions, to ensure compliance with MSD reporting requirements. In the report include actions to ensure that any future notification requirements are met within one business day of your becoming aware of them.

- Regardless of the implementation status of your plan, any future costs that are related to MSD's additional equipment or time needed to perform maintenance at or near the WPS may be billed to

BRIDGETON LANDFILL LLC as referenced in Ordinance 12559, Article IX, Section Six – Recovery of Costs, which states:

> The Director may bill a user for the costs incurred by the District for any work undertaken pursuant to the provisions of Article IV, Section Two; Article VII, Section Nine; Article IX, Section Three and Article X, Section Nine of this Ordinance. Failure to pay any such assessed costs within thirty (30) days after demand has been made shall constitute a violation of this Ordinance, enforceable under the provisions of this Article, or notice may be filed in the Office of the Recorder of Deeds of the City or County having jurisdiction, as the case may be, whereupon such bill shall become a lien against the property involved.

- Submit your response no later than **October 8, 2012**.

MSD's Enforcement Response Plan requires MSD to initiate additional enforcement action, if necessary, to secure timely and effective compliance. This plan is an integral part of MSD's Pretreatment Program, required and approved by the Missouri Department of Natural Resources.

Thank you for helping us to comply with state and federal regulations. If you have any questions, please contact me at 314.436.8721.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Chris Bulmahn

Chris Bulmahn
Associate Engineer

cc: DEC: Doug Mendoza, Bruce Litzsinger, John Lodderhose, Tom Boehm
Operations: Rob Daly, Jay Kniker, Mark Bright, Vince Stollhans, Ryan Sabourin (Risk Mngt.)

Doug Mendoza

BRIDGETON LANDFILL
10638036 00

From: Doug Mendoza
Sent: Friday, September 07, 2012 1:00 PM
To: Rob G Daly; Mark Bright; Vince Stollhans; Tom Boehm; Jay Kniker; Christopher J. Bulmahn; Ryan Sabourin
Subject: RE: Westlakes PS- Site Conditions Status Update Meeting Minutes

Thanks, Rob. No revisions necessary in my opinion.

FYI, a formal Notice of (multiple) Violations will be sent to Bridgeton Landfill early next week. In it, they have a standard 4ish week time frame to respond with corrective action plans. However, the landfill personnel do not want to get violation notices – it causes them great grief and time expenditure from corporate policies. The sooner they can submit corrective action plans and get MSD to issue them a compliance order with a schedule, the sooner they can stop receiving individual violation notices. Worst case, we may wind up issuing a compliance order that has an open ended schedule in it, that starts with a requirement to submit a detailed plan of action by XX/XX/XX date.

Doug

From: Rob G Daly
Sent: Thursday, September 06, 2012 2:24 PM
To: Mark Bright; Vince Stollhans; Doug Mendoza; Tom Boehm; Jay Kniker; Christopher J. Bulmahn; Ryan Sabourin
Subject: Westlakes PS- Site Conditions Status Update Meeting Minutes

All

Please review attached meeting minutes. If I mis-understood anything or mis-stated anything-please do not hesitate to correct me on it so I can get this down right. I admit up front to still being a bit fuzzy on the 'schedule of compliance' sequence of events and their timing.

If any revisions required- please just send to me in form of an email and please hit 'reply all' if/when you send your revision.

Many thanks to DEC and RM for your continued assistance on resolving this issue.

Rob Daly, EIT
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

Metropolitan St. Louis Sewer District

Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

September 6, 2012

David Vasbinder
Environmental Manager
BRIDGETON LANDFILL LLC
13570 St. Charles Rock Road
Bridgeton, MO 63044

RE: NOTICE OF POTENTIAL VIOLATIONS – WASTEWATER DISCHARGE PERMIT NO. 0511559802 - 2
For premise at: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Dear Mr. Vasbinder:

Thank you for your July 24, 2012, letter advising us of the results of recent wastewater discharge sampling. The letter accompanied the 2nd quarter 2012 self-monitoring report, required under the permit referenced above. Unfortunately, we identified the following volatile chemical compound:

POTENTIAL VIOLATIONS OF DISCHARGE PROHIBITIONS:

Certain volatile chemical compounds were found at elevated levels as indicated below:

DATE	TIME	SAMPLE POINT	SAMPLE TYPE	POLLUTANT	GAS/VAPOR TOXIC SCREENING LEVEL	VALUE FOUND
06-25-12	1205	008	Grab	Benzene	0.14 mg/L	0.210 mg/L
06-26-12	1600	008	Grab	Benzene	0.14 mg/L	0.160 mg/L
06-27-12	1505	008	Grab	Benzene	0.14 mg/L	0.320 mg/L

mg/L = milligrams per liter

There are multiple other toxic organic chemicals that were present in your discharge at levels less than the fume toxicity screening level.

Wastewater discharges are prohibited under Ordinance 12559, Article V, Section One.A.8 if they cause or contribute to emissions of toxic gases, vapors, or fumes into the sewer atmosphere at levels in excess of applicable exposure levels. The presence of volatile chemical compounds at concentrations above the screening levels can result in the generation of toxic gases or vapors in the sewer atmosphere. Such conditions pose a serious threat to the health and safety of MSD personnel and to other users of the sewer system. If several compounds are present at elevated levels, the potential for the generation of toxic gases or vapors increases due to possible additive and/or synergistic effects.

REQUIRED ACTION/RESPONSE:

As we discussed in a phone conversation on September 6, 2012, the Total Toxic Organic levels were below permitted levels as you reported in your July 24, 2012 response letter. However the Benzene in your June 25, 26 and 27 samples was above the fume toxicity screening level. MSD is aware of the ongoing actions you are taking to ensure that atmospheric conditions in MSD structures are within all limitations for a safe work environment. It has been discussed that Bridgeton Landfill is seeking to install air monitoring equipment and possibly air moving equipment to the MSD pump station located directly downstream from your facility as a corrective action.

1. Submit a report of corrective actions, to ensure compliance with MSD limitations for the potential violations listed above. In the report:

    a. Include actions addressing volatile organic chemical compound discharges
    b. Indicate which corrective actions are initiated and which are still to come
    c. Include plans for additional sampling to verify a return to compliance

2. Submit all additional sampling results to MSD. Sample collection must occur as follows:

    a. Sample at the identified sampling points
    b. Collect grab samples for volatile organic chemicals
    c. For "potential violations of discharge limitations" only, you need only analyze for the individual toxic organic chemical compounds that were above the gas/vapor toxic screening level.
    d. Take samples at times representative of normal operations

3. Submit your response no later than **October 10, 2012.**

Thank you for helping us to comply with state and federal regulations. If you have any questions, please contact me at 314.436.8721.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Chris Bulmahn

Chris Bulmahn
Associate Engineer

Enclosures: SP map

cc: Doug Mendoza
Tom Boehm

Doug Mendoza

BRIDGETON LANDFILL
1003803000

From: Rob G Daly
Sent: Thursday, September 06, 2012 2:24 PM
To: Mark Bright; Vince Stollhans; Doug Mendoza; Tom Boehm; Jay Kniker; Christopher J. Bulmahn; Ryan Sabourin
Subject: Westlakes PS- Site Conditions Status Update Meeting Minutes
Attachments: WestlakesPSHazardousSiteConMtgMinutes9_5_12.docx

All

Please review attached meeting minutes. If I mis-understood anything or mis-stated anything-please do not hesitate to correct me on it so I can get this down right. I admit up front to still being a bit fuzzy on the 'schedule of compliance' sequence of events and their timing.

If any revisions required- please just send to me in form of an email and please hit 'reply all' if/when you send your revision.

Many thanks to DEC and RM for your continued assistance on resolving this issue.

Rob Daly, EIT
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

MSD – Pump Station Division

Subject: **Westlakes PS – Site Conditions Meeting Minutes**

Date: **September 5, 2012**

Attendees:

Doug Mendoza- DEC	Mark Bright-PS Div	Jay Kniker- PS Div
Ryan Sabourin- Risk Mgmt	Rob Daly-PS Div	Tom Boehm-DEC
Chris Bulmahn-DEC	Vince Stollhans-PS Div	

1. Discussion items-Actions since previous meeting 7/25/12

a. Site investigation- Bridgeton Landfill response report review

Action item: Vacuum extraction system that extracts volatiles from leachate was tweaked so that it pulls more volatiles from leachate. Purportedly an improvement to previous conditions. PS Div requests more info on other systems modifications referenced in landfill response letter of 7/5/12. Per Tom Boehm- an 'oxidation event' is creating the additional volatiles that are impacting the environment at the station. Monitoring indicates readings 2x over MCL of 2 of 4 gases that monitors can sense.

Action party: Tom Boehm

Submittal date: August 2, 2012. **Completed**. See below response- clarifying landfill actions.

From: Tom Boehm
Sent: Thursday, August 02, 2012 3:23 PM
To: Rob G Daly; Mark Bright
Cc: Jay Kniker; Ryan Sabourin; Doug Mendoza; John Lodderhose; Christopher J. Bulmahn
Subject: RE: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)

Update:

"At our meeting last week, I was charged with getting clarification on a few items from the landfill.

The new vacuum system and activated charcoal system are up and running as designed. The 'vacuum system' is made up of 3 parts. 1) the original vacuum system feeding the original flare, 2) the secondary vacuum system that is directed to the same flare, and 3) the activated carbon system is a 3rd separate vacuum system. As of our

meeting, they were still working to get #2 above (the secondary vacuum system), working as designed. Since that time, they have the system running up to their specs.

The carbon system is designed as a redundant system. If the vacuum flare system fails, in-line sensors activate a phone messaging system to notify facility personnel immediately. At that point, they can manually shut down the flare system and activate the carbon system. Weekly inspections will be done to ensure the system is in working order.

They believe they can shut down the leachate discharge for maximum of 9-10 hours, given a couple of days lead time."

b. 8/16/12 and 8/28/12 Non Capacity DWB (Overflow) Event

Foam overflow(s) at station- Per Tom Boehm (email: 8/20/12)- due to a leachate recirculation system malfunction. Landfill personnel were supposed to have pump back on line within week of this initial event- event occurred again 8.28/12. Also supposed to purchase/procure spare pump to have in their warehouse in case this happens again.

Action item: Status of landfill recirculation system repairs? Still pending item.

Action party: Tom Boehm

Completion Date: Possible to get an answer from landfill personnel by Sept 14th?

DEC was supposed to write follow up letters to the landfill to formalize required corrective actions but are waiting for reports from the Field Investigator who handled the bypass.

Action item: DEC to generate 'schedule of compliance' document that will encompass multiple overflow events and this overall issue in to one item of correspondence. DEC to cc Rob Daly.

Action party: Chris Bulmahn

Completion Date: DEC will issue letter in next 1-3 week timeframe- will consult with landfill personnel first. General goal- complete no later than end of September.

c. PS Division periodic on site monitoring

PS Division will continue to perform 2/week periodic monitoring of site to attempt to monitor trend of odor reduction and/or status. Mark Bright will log data. Logged only at wet well and valve pit area.

Status Update:
4 gas meter readings collected in field visits by PS Div staff (to date) provided to group by Mark Bright in an email Wed 9/5/12.

Review of readings to date indicates improvements since initial conditions reported- but still outside District 'zone of comfort' as concerns routine site access and staff safety.

2. Landfill –potential course of action

Per Tom Boehm- 8/31/12- Landfill requesting to possibly install own gas monitoring devices and perform own monitoring of site conditions. Mark Bright, Tom Boehm met landfill personnel 8/30/12 to review issues associated with access. DEC/RM noted legal issues (insurance, etc.) and are prepared to address with landfill.

Question: do we allow landfill personnel to access our site? Issues?

Status update:
1. Yes- PS Division concurs and will authorize/allow landfill personnel access to site to conduct own monitoring and cleanups.
2. RM required submittal of insurance documents before granting access. Landfill has submitted insurance documentation to RM and RM states that District is satisfied with submittal-no further submittal required.
3. PS Div would prefer- longer term- that if any kind of longer term access is envisioned by landfill personnel- that they construct/install separate (small, individual) gate in existing fenced enclosure- with their own lock on it. In meantime- 'daisy chain' of locks is satisfactory. Also- own utility drop from Ameren desired.
4. No detailed discussions as of yet- preliminary conceptual thoughts only.

Question: Do we install a permanently mounted 4 gas monitoring device?

1. Vince Stollhans has provided preliminary monitoring device submittal for review by group- along with a cost estimate. Estimated total project cost of around $20-25K.
2. Per DEC- landfill personnel have indicated that they are willing to commence with design/construction phase of this monitoring device immediately-and that they will bear burden of costs.
3. Decision is made (RGD)- PS Division staff willing to collaborate with landfill personnel to select monitoring device, collaborate on design with landfill technical support staff, and commence installation as soon as possible- but hopefully commence design phase discussion no later than end of September 2012. Vince Stollhans will be initial point of contact with landfill personnel to identify appropriate monitoring device. Jay Kniker and Mark Bright to sit in on this process as required or necessary.

Action item: DEC coordinates and sets up design phase meeting with landfill personnel for earliest possible date. Vince Stollhans is out of office until 19SEP.

Action party: Tom Boehm

Completion Date: Set up meeting no later than Sept 14, 2012. Meeting conducted by no later than end of September.

4. Issues remain to be settled at this meeting. (Some) Key issues to still be determined at design phase kick off meeting:

- Scope of work envisioned
- Prelim cost estimates
- Suggested vendor list provided by District to landfill
- Determination of who procures materials, schedules/coordinates work, and receives/reviews/pays invoices from work. PS Div goal- landfill personnel do this themselves with limited, consulting capacity only, District involvement.
- Data collected- what specifically- data logging capabilities of device, trend analysis info provided by instrument, etc.
- Timeline to perform work
- Visible/audible alarm when exceed safe conditions?
- Automated reporting when exceeding safe limits? NOT to District- to landfill?
- Ventilation and odor control component?
- Identify agreed upon safe gas limits- make sure landfill and MSD agree on alarm limits in installed device prior to device selection/procurement.
- How to share data with landfill personnel- tie into SCADA or use cell connection to dump data daily (preferred). District desires are to
    1) Ensure staff safety- this device will help identify conditions on site to do that
    2) Use data collected for periodic trending analysis- help link to what is going on in landfill.

Info is NOT for 'regulatory compliance' purposes in other words.

Key personnel to attend: Vince Stollhans, Mark Bright, Jay Kniker (optional)

5. This monitoring is to be considered only an interim step to help provide the information that a) District needs to track and trend situation at site- ensure staff safety for routine site access and b) help provide landfill personnel with info required to do own analysis. Actual root cause analysis and solving that (set of) actual long term problem(s) is what we are actually after.

3. Gas readings.- Still high enough to inhibit proper maintenance at station. What is landfill willing/able to do about this situation- and how quickly can it be implemented.

Longer term solution- DEC will issue a 'schedule of compliance' document that will ask landfill to identify proposed solutions to problem. DEC will consult with landfill prior to issuance to ensure that they incorporate what landfill is already doing into final draft. Landfill has 30 days to respond- hopefully sooner?

Action item: DEC to generate 'schedule of compliance' document. DEC to cc Rob Daly.

Action party: Chris Bulmahn

Completion Date: DEC will issue letter in next 1-3 week timeframe- will consult with landfill personnel first. General goal- complete no later than end of September.

4. Revise station maintenance SOP, i.e. PM, CM, and EM procedures in interim?

Per Mark Bright- not at this time. Not satisfactory as is- but we can get in to perform required work on limited basis. Time is of the essence however and continuing to move the process forward in a timely way is critical.

5. Follow up meeting with Landfill personnel to

a) Review access issue, e.g. specific devices, access procedures, etc.

See above-Tom Boehm to schedule meeting soon.

b) Corrective Action Plan(CAP) on part of landfill to fully and finally address this issue.

See above- based on response received after DEC issues 'schedule of compliance' letter to landfill.

c) Longer term- CIRP options with station.

No action at this time.

6) 30 day follow up meeting to review results.

No follow on meeting currently scheduled.

Action item: Once 'schedule of compliance' document issued- land fill responds- group to reconvene as needed to review necessary course of action on longer term solution. Short term- install monitoring device- proceed concurrently. DEC will advise PS Div (RGD) when response from landfill is in hand.

Action party: Doug Mendoza

Completion Date:To be determined. DEC will keep Rob Daly copied on all pertinent correspondence.

If there are any suggested revisions or requests for clarification please do not hesitate to contact me at ext 6706 or rdaly@stlmsd.com.

Bridgeton Landfill
1003803000 DW

Tom Boehm

From: Michael Grace
Sent: Tuesday, September 04, 2012 7:29 AM
To: Tom Boehm
Cc: Rob G Daly
Subject: RE: Westlake pump station

Thanks Tom, the certificate insurance appears to be in order.

From: Tom Boehm
Sent: Tuesday, September 04, 2012 7:10 AM
To: Michael Grace
Subject: RE: Westlake pump station

Sorry. I believe it is now attached.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Michael Grace
Sent: Friday, August 31, 2012 10:36 AM
To: Tom Boehm
Subject: RE: Westlake pump station

Tom:

Thanks for the update, unfortunately I did not see the insurance certificates attached could you please send them to me, thanks.

From: Tom Boehm
Sent: Friday, August 31, 2012 10:30 AM
To: Rob G Daly; Bruce Litzsinger; Doug Mendoza; Christopher J. Bulmahn; Joseph J Grib
Cc: Michael Grace; Joseph J Grib; Mark Bright; Jay Kniker
Subject: RE: Westlake pump station

All,

Mark Bright, Joe Grib and I met with the landfill personnel yesterday (Thursday) morning. Mark explained the requirements that we would have for them to enter our pump station and discussed possible options for installation of equipment for monitoring of the atmosphere and ventilation of the vault.

Once the vault doors were open for ~5-10 minutes, the atmosphere in the vault was still at alarm levels but much lower readings than in the recent past.

Thursday, 08/30/12 ~ 9:30 am
CO – ~50 ppm
O_2 - ~15%
LEL - ~10%
H_2S – ~10 ppm

While these results show some improvement, the landfill personnel understand that more needs to be done and are actively working on the problems they are experiencing.

I secured the documents mentioned below. Attached is their proof of liability insurance and Worker's Comp. Their HASP (Health and Safety Plan) is ~ 40pages and addresses confined space entry procedures (including atmospheric monitoring, ventilation, PPE). If anyone needs a copy of this, I can scan and email or copy and mail.

Bruce Litzsinger requested that we garner an agreement stating the landfill personnel will contact us if they discover an overflow or bypass and wait until a representative from DEC arrives to document the incident prior to cleaning it. They are aware of this requirement and will be submitting something in the near future.

++Mike Grace: Is the attached insurance certificate adequate or is there something else that we need?

Bryan Sehie, our main contact at the landfill, asked Mark about contractors that already know our specific requirements for equipment installation and design and he (Mark) agreed to give them contacts.

I asked the parties involved to send all documentation through me so that I can be the primary record keeper.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Rob G Daly
Sent: Wednesday, August 29, 2012 10:29 AM
To: Bruce Litzsinger
Cc: Michael Grace; Joseph J Grib; Tom Boehm; Mark Bright; Jay Kniker
Subject: Westlake pump station

Bruce- thanks.

Was going to address next week at our scheduled update meeting. This is the legwork that needed to be done before then though and it is greatly appreciated. Thanks for taking the lead on it.

We have no issue with their access conceptually- we just need to explore with the group before we jump-make sure all bases are covered risk management wise and maintenance issue wise.

Rob Daly, EIT
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: Bruce Litzsinger
Sent: Wednesday, August 29, 2012 9:53 AM
To: Rob G Daly; Mark Bright
Cc: Michael Grace; Joseph J Grib; Tom Boehm
Subject: Westlake pump station

I spoke to Joe about plans to provide Republic Waste employees into the Westlake pump station. I called Mike Grace to find out what safety or insurance steps should be taken, particularly since this is an area designated as a hot hole with hazardous conditions. MSD's concern is that we do not want someone hurt, and then to be sued in the event one of their workers gets hurt.

Mike told me we should get a certificate of insurance from Republic, showing their workmans compensation insurance and their general liability insurance. We do not need to be listed as additional insured. We should also get a copy of their safety plan or other assurance that they will (and know how to) follow OSHA requirements.

Question – please call Mike (or me). Thanks.

Bruce Litzsinger
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 E. Grand Ave.
St. Louis, MO 63147
Phone: 314-436-8757

Exped 8/28/12 1625 JJC

Bridgeton Landfill 1003 503000

METROPOLITAN ST. LOUIS SEWER DISTRICT (MSD)

Report of Non-Capacity Related Sewer Overflow or Wastewater Treatment Plant Bypass

Report type: SSO
Incident Number: N/A
MSD Service Request: N/A
Work Order Number: 1896242
First Report Date & Time: 08/28/2012 09:13
First Response Date & Time: 08/28/2012 09:13
Location Address: 13019 BOENKER LN, BRIDGETON 63044

Wastewater Treatment Plant Service Area and Permit Number: MISSOURI RIVER MO-0004391
Service Area Type: SANITARY SEWER
MSD Asset Number: E63828
Overflow Landmark or Cross Street: ST. CHARLES ROCK ROAD

Overflow Start Date/Time(Military): 08/28/2012 09:13
Overflow End Date/Time(Military): 08/28/2012 09:13
Total Overflow Time (Minutes): 0 MIN
Asset Class & Size: PUMP
Total Overflow Volume (Gallons): 10 GAL
Treatment Bypass Category: N/A

Problem/Cause: VANDALISM DUMPING
Corrective Action: OTHER (COMMENT)
Corrective Action Start Date/Time(Military): N/A N/A
Corrective Action End Date/Time(Military): N/A N/A

Strength of Overflow/Bypass: RAW SEWAGE
Affected Area: SOAKED IN SOIL
Receiving Stream Name: N/A
Length Impacted: N/A

Impact Major:	N	Fish Kill:	N	Samples Taken:	N	Lab ID Number:	N/A		
Cleanup Needed:	Y	Rake/Remove:	N	Hydrant Flush:	N	Cobra Flush:	Y	Pump to Sewer:	N
Flush by Rain:	N	Other:	N	Disinfectant:	N	Disinfectant Date:	N/A		

Cleanup Start Date/Time(Military): 08/28/2012 13:30
Cleanup End Date/Time(Military): 08/28/2012 14:00

COMMENTS: FOAM OVERFLOW FROM PUMP STATION WET WELL. FOAM FLUSHED BACK TO WET WELL. CLEAN-UP PERFORMED BY BRIDGETON LANDFILL PERSONNEL.

REPORT CONTACT INFORMATION

Prepared By: JOSEPH J GRIB
Title: INDUSTRIAL WASTE INVESTIGATOR
Submitted By: [signature]
Date: 8/28/2012
Phone Number: 314-436-8731

☐ 24-Hr Report (Initial)
☐ 5-Day Report (Final)
☐ Corrected

Note: All Non-Capacity Related Sewer Overflows and Wastewater Treatment Plant Bypasses must be reported to the Missouri Department of Natural Resources (MDNR) within 24 hours of MSD first becoming aware of the overflow. Reports may be FAXED to MDNR at 314-416-2970 during normal business hours and the MDNR Emergency Response number should be called on weekends and holidays at 1-573-634-2436. A written report must be mailed to local MDNR at 7545 S. Lindbergh, Suite 210, St. Louis, MO 63125, phone 314-416-2960 within five calendar days for the overflow.

2.5 HRS

DEPARTMENT OF ENVIRONMENTAL COMPLIANCE
MEMORANDUM

MEMO TO: BRIDGETON LANDFILL LLC

ACCT #: 1003803000

FROM: Chris Bulmahn CB

SUBJECT: Meeting to discuss conditions at Westlake Pump Station

DATE: August 24, 2012

Dave Vasbinder – Republic Services
John Lodderhose – MSD
Tom Boehm – MSD
Bryan Sehie – Republic Services
Doug Mendoza – MSD
Chris Bulmahn – MSD

Met with Republic Services representatives, for Bridgeton Landfill, to discuss the conditions at the Westlake Pump Station. On August 16, 2012 there was a reported foam bypass at the Westlake Pump Station. At this time MSD became aware that Bridgeton Landfill was bypassing part of its pretreatment system when a recirculation pump failed and was removed. It was believed that foam build up was due this malfunction. MSD was not notified that part of the pretreatment system was not being utilized. Bridgeton Landfill was previously notified in the June 20, 2012, Notice of Violation that they may not bypass any portion of their pretreatment facilities except when necessary to perform essential maintenance and then only if the bypass will not result in a violation of applicable standards or requirements.

MSD Concerns:

Safety of Workers

MSD workers must be able to safely access the pump station to conduct routine maintenance. Elevated levels of hydrogen sulfide (H_2S) and carbon monoxide (CO), oxygen (O_2) deficiency, and readings 10% over the lower explosive limit (LEL) were detected.

Bypass Reoccurrence

MSD has expressed that they cannot allow any bypass of the sanitary sewer system (Westlake Pump Station).

Mandatory Maintenance required under the Consent Decree

MSD is required to do routine maintenance at the pump station per the Consent Decree with the EPA. Problems that cannot be addressed in a timely manner may cause a violation of MSD's Consent Decree. If equipment fails and a sewage bypass occurs, MSD could be assessed significant fines.

Actions:

Talk with operations about granting Bridgeton Landfill access to the pump station to monitor the discharge from the sewer lateral coming from the landfill.

Discuss with operations the possibility of Bridgeton Landfill installing air monitoring and air handling equipment to ensure a safe environment for MSD workers.

Bridgeton Landfill to look into inspecting their lateral with video equipment to verify that there are no additional connections that may be contributing to problems at the pump station.

Bridgeton Landfill CS
1003803000

Tom Boehm

From: Sehie, Bryan <BSehie@republicservices.com>
Sent: Tuesday, August 21, 2012 5:27 PM
To: Tom Boehm
Cc: Vasbinder, David
Subject: RE: Bridgeton LF Leachate Recirculation Pump

Good Evening Tom,

I'm sorry that I missed your call this afternoon. I would like to update you on the status of leachate tank system as we discussed yesterday. We were able to reinstall the rebuilt leachate atomizer centrifugal pump. As I explained, we did not activate it yet because we are performing a leachate tank cleaning. Over time sediment settles in the bottom of the tank and must be removed. The cleaning is under way and is expected to take a few more days. The removal of the sediment is also important to prolong the life of the pump. The system will be restarted once the maintenance is complete. We have placed the order for the spare centrifugal pump and should have it in 5-6 weeks.

Unfortunately, Dave and I will be unable to participate in a conference call tomorrow morning at 7 am. We have a series of meetings with the Missouri DNR to attend at the landfill. Dave and I courteously request that we be allowed to meet with your managerial personnel, at the MSD office, at their convenience to discuss the Bridgeton Landfill leachate discharge. We would be grateful if you could assist us in coordinating a meeting, or if you could provide me with the contact information of the MSD officer overseeing the Bridgeton Landfill. Thank you for your assistance.

Have a good night,

Bryan Sehie

Bryan Sehie | Environmental Specialist | Republic Services, Inc.

13570 St. Charles Rock Rd. | Bridgeton, MO 63044

☎ 314.744.8190 314.443.0179

From: Tom Boehm [mailto:TCBOEH@stlmsd.com]
Sent: Tuesday, August 21, 2012 2:01 PM
To: Sehie, Bryan
Subject: RE: Bridgeton LF Leachate Recirculation Pump

Bryan,

Thanks for your quick response to our inquiries; you have been more than helpful and forthcoming with requested information. We are aware of the effort and expense you have incurred recently trying to rectify the situation at the Westlake Pump Station. Please understand that we are not targeting your company or property, but must strictly adhere to our Enforcement Response Plan that is part of the Pretreatment Program which is governed under MoDRN and EPA. Also, we recently came under a Consent Decree with EPA that states we must eliminate SSO's (Sanitary Sewer Overflows). To be able to accomplish this, our Operations Department must have safe access to all of our equipment in case an emergency arises. The atmosphere in the Pump Station has been dangerous (if not life threatening) to enter during the times I was out to measure over the past week or so.

To respond to your request below, we are unable to suspend issuance of NOVs because of the response plan mentioned above. Many of the same issues have arisen with this pump failure as occurred when the vacuum system was compromised in June. Because of all of the scrutiny that we are under due to the Consent Decree, we are allowed very little margin of freedom to address these types of problems.

The first item of note is that your company should have provided notification to us that a critical part of your pretreatment system was compromised soon after you discovered it. In the first NOV, I tried to impress upon your

company the importance of keeping us informed of any anomalies in your system, especially those that affect the atmosphere in our structures. I will be writing an NOV for many of the same issues brought up in the one dated June 20, 2012.

As far as the foam suppression system is concerned, please keep us informed of the progress, after your evaluation of the cause and possible reoccurrence in the future.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Sehie, Bryan [mailto:BSehie@republicservices.com]
Sent: Monday, August 20, 2012 6:57 PM
To: Tom Boehm
Cc: Vasbinder, David
Subject: RE: Bridgeton LF Leachate Recirculation Pump

Good Evening Tom,

I have amended the Bridgeton Landfill Leachate Tank System SOP as you have requested. The amendments include a written-in increase in atomizer pump operational checks from weekly to daily, and also require the landfill to keep a spare atomizer pump onsite to reduce system down time in the event of a malfunction. The Bridgeton Landfill respectfully requests that, due to our continued monitoring of the system as listed in our SOP, the implementation of the carbon vessel system as an operational redundancy, and the purchase of an additional centrifugal pump, that the Metropolitan St. Louis Sewer District suspend the issuance of any further NOVs related to the elevated 4-gas concentrations at the West Lake Pump Station. The Bridgeton Landfill is committed to maintaining compliance with the MSD Wastewater Discharge Permit, and all MSD Ordinances, as is proved through our actions. We will, of course, continue to work together with MSD in the future on any issues that may arise. Thank you for your consideration.
Sincerely,
Bryan Sehie

Bryan Sehie | Environmental Specialist | Republic Services, Inc.

13570 St. Charles Rock Rd. | Bridgeton, MO 63044

☎ 314.744.8190 | 314.443.0179

From: Tom Boehm [mailto:TCBOEH@stlmsd.com]
Sent: Monday, August 20, 2012 7:53 AM
To: Sehie, Bryan
Subject: RE: Bridgeton LF Leachate Recirculation Pump

Bryan,

Call me today when you are in the office. I should be around for the most part.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Sehie, Bryan [mailto:BSehie@republicservices.com]
Sent: Friday, August 17, 2012 11:17 AM
To: Tom Boehm
Subject: RE: Bridgeton LF Leachate Recirculation Pump

Good Morning Tom,
I attempted to call you earlier. I had some updates on our leachate system that I want to run by you.
Thanks,
Bryan

Bryan Sehie | Environmental Specialist | Republic Services, Inc.

13570 St. Charles Rock Rd. | Bridgeton, MO 63044

☎ 314.744.8190 | 314.443.0179

From: Tom Boehm [mailto:TCBOEH@stlmsd.com]
Sent: Friday, August 17, 2012 8:20 AM
To: Sehie, Bryan
Subject: RE: Bridgeton LF Leachate Recirculation Pump

Thanks Bryan.

I have to talk to my boss to see what else we may need from you, but thanks for getting this together.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Sehie, Bryan [mailto:BSehie@republicservices.com]
Sent: Thursday, August 16, 2012 5:13 PM
To: Tom Boehm
Subject: Bridgeton LF Leachate Recirculation Pump

Good Afternoon Tom,

Per out visit today I reviewed the leachate tank SOP. The SOP does cover the inspection of the recirculation pump at a frequency of once per week minimum. However we actually inspect the pump daily for operation, along with the vacuum line, the carbon system when running, and all of the leachate collection sumps. We have been performing the inspections on a daily basis for the past two months. The SOP states only the minimum requirements for inspection.

The timeframe of the recirculation pump issues are as follows: On Tuesday, 8/7 during the daily inspection I observed that the centrifugal leachate tank pump was making a loud audible screeching sound and was very hot to the touch. I examined the 2" HDPE discharge piping to the atomizer and noted that no liquid was being pumped. I turned off the recirculation pump to attempt to prevent any further damage and activated the backup carbon filtration system to attempt to draw additional vapors in the pumps absence. I contacted Layne Western, our leachate system contractor to arrange for them to come out, remove the pump and rebuild or replace it. Layne was able to remove the pump on Monday 8/13 and take it back to their shop for rebuild. After our meeting today Thurs 8/16 I contacted Layne, who finished rebuilding the pump this morning. I also had them to price us out a spare pump that could be swapped out with the current pump in the event that this would occur again in the future. This should greatly reduce any recirculation system down time. As of now the pump is expected to be installed on Monday 8/20.

Additionally, I will be looking into anti-foaming options for our leachate system. I will let you know what I figure out. Please contact me with any questions.

Thanks,

Bryan

Bryan Schie | Environmental Specialist | Republic Services, Inc.

13570 St. Charles Rock Rd. | Bridgeton, MO 63044

☎ 314.744.8190 314.443.0179

Bridgeton Landfill
100 3 803000

Tom Boehm

From: Tom Boehm
Sent: Monday, August 20, 2012 10:02 AM
To: Rob G Daly; Jay Kniker; Ryan Sabourin; Mark Bright
Cc: Doug Mendoza; Christopher J. Bulmahn
Subject: FW: Bridgeton LF Leachate Recirculation Pump

Tracking:

Recipient	Delivery
Rob G Daly	Delivered: 8/20/2012 10:02 AM
Jay Kniker	Delivered: 8/20/2012 10:02 AM
Ryan Sabourin	Delivered: 8/20/2012 10:02 AM
Mark Bright	Delivered: 8/20/2012 10:02 AM
Doug Mendoza	Delivered: 8/20/2012 10:02 AM
Christopher J. Bulmahn	Delivered: 8/20/2012 10:02 AM
Tom Boehm	Delivered: 8/20/2012 10:02 AM

FYI

As some of you know, there was a reported bypass of foam at Westlake Pump Station on Thursday, 08/16/12.

See below. They believe the elevated levels on the gas monitor and foam buildup are due to a leachate recirculation system malfunction.

They will have the pump back early this week and are pricing another to have in their warehouse in case this happens again.

We will be writing follow up letters to the landfill to formalize required corrective actions but are waiting for reports from the Field Investigator who handled the bypass.

I'll keep you all posted.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Sehie, Bryan [mailto:BSehie@republicservices.com]
Sent: Thursday, August 16, 2012 5:13 PM
To: Tom Boehm
Subject: Bridgeton LF Leachate Recirculation Pump

Good Afternoon Tom,

Per out visit today I reviewed the leachate tank SOP. The SOP does cover the inspection of the recirculation pump at a frequency of once per week minimum. However we actually inspect the pump daily for operation, along with the

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Additionally, I will be looking into anti-foaming options for our leachate system. I will let you know what I figure out. Please contact me with any questions.

Thanks,

Bryan

Bryan Sehie | Environmental Specialist | Republic Services, Inc.

13570 St. Charles Rock Rd. | Bridgeton, MO 63044

☎ 314.744.8190 314.443.0179

Bridgeton Landfill LLC
1003 8030 00

Bridgeton Landfill Leachate Tank System

Standard Operating Procedure

Bridgeton, Missouri

August 2012

13570 St. Charles Rock Road
Bridgeton, Missouri 63044
Telephone: (314) 744-8190
Facsimile: (314) 739-2588

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1-1 Leachate Tank System Operational Personnel

1.0 INTRODUCTION

This document is the site Standard Operating Procedure (SOP) for operation and maintenance of the leachate tank system at the Bridgeton Landfill, 13570 St. Charles Rock Road, Bridgeton, Missouri 63044. This SOP has been developed by the Bridgeton Landfill for use by onsite personnel involved with the leachate tank system operation and preventative maintenance. The purpose of this document is to establish a set timeframe for inspection, operation, maintenance, repair, and regeneration of each of the components of the facilities leachate storage, recirculation, and extraction tank to sustain permissible discharge effluent of the facility.

1.1 Tank Background and Goal

The Bridgeton Landfill produces on average 100,000 to 150,000 gallons of Leachate each day. There are currently 5 leachate collection sumps in the landfill network. Each collection sump is capable of pumping approximately 175 gallons per minute. One to five pumps operate in tandem to remove maximum leachate volume and maintain a leachate height of 30 ft. or less within the landfill. Leachate is permitted to be discharged to the Metropolitan St. Louis Sewer District (MSD) under Wastewater Discharge Permit No. 0511559802-2. To assist the facility in ensuring that effluent leachate constituent concentrations are below permitted limitations, and that excessive levels of methane and hydrogen sulfide are not released into the MSD sanitary sewer system the facility has implemented a number of engineering controls.

The Bridgeton Landfill utilizes an 89,000-gallon capacity Aquastore, glass-lined liquid collection tank to contain, recirculate, atomize, and subsequently extract toxic gases entrained in the leachate produced within the facility prior to discharging. The tank has a series of valves that can be actuated to regulate various activities within. Dependent on valve position the tank liquid level and discharge rate can be controlled, the leachate can be stirred to free up any tank deposits from settling, or it can be run through the atomizer.

The leachate tank is also fitted with a 2" high-density polyethylene vacuum line. This line, operating courtesy of vacuum provided by the landfill's gas control and collection system blower is designed to remove gases such as methane and hydrogen sulfide commonly found in leachate, as well as vapor-phase organic constituents.

As a redundancy the Bridgton Landfill leachate tank system employs a dual carbon-vessel filtration system to supplement any temporary loss of vacuum to the tank from the main extraction line. In the case of a gas collection and control system malfunction this system is able to perform the duties of gas removal from the tank until the issue can be corrected.

Each system, as explained in this SOP has a monitoring schedule and contingency plan to insure proper and sustained operation.

1.2 List of Leachate Tank Operations Personnel

The following table represents the Bridgeton Landfill Personnel responsible for leachate tank system operation. The table details each individual's specific responsibilities regarding leachate tank operation and individual contact information:

Table 1-1 Leachate Tank System Operational Personnel

Title	Personnel	Phone numbers	
		Work	Mobile
Site Manager	**David Vasbinder**	**(314) 744-8116**	**(314) 249-9404**
Leachate Collection System Specialist	**Bryan Sehie**	**(314) 744-8190**	**(314) 443-0179**
Leachate Tank Technician	**Randy Meibaum**	**(314) 744 -8165**	**(314) 393-2613**
Gas Control and Collection System Technician	**Mike Lambrich**	**(314) 744-8175**	**(314) 683-3921**

2.0 LEACHATE TANK SYSTEM OPERATION AND MAINTENANCE

2.1 Tank Level Control Valve

The dimensions of the Aquastore leachate containment tank are 25 ft. in diameter by 29 ft. in height. The tank is equipped with two inlets, each of which deposit leachate from opposite sides of the landfill. The tank is also equipped with two outlets; a gravity drain, positioned near ground-level; and an anti-siphoning overflow drain near the top of the tank. Leachate is typically controlled through actuation of the bottom gravity drain through a butterfly valve on the outside of the tank. The top-located, anti-siphoning drain is designed to prevent tank overflow in the event that influent leachate volume surpasses gravity drain capability. Operation and maintenance duties and frequencies are as follows:

Operation:

- To optimize efficiency of the atomization and extraction unit in the system, a maximum tank liquid level between 6 ft. and 16 ft. shall be maintained. Maintaining this liquid level allows for sufficient headspace, and atomization time within the tank to promote ideal gas and vapor removal.
- The tank level indicator is located within the tank secondary containment wall, on the control panel.
- If the tank level is not within the optimal range, the gravity drain valve should be readjusted to the appropriate setting. If the tank level has accumulated above 16 ft., the drain valve control should be adjusted slightly to the right. If the tank level has dropped below 6 ft., then the drain valve control should be adjusted slightly to the left. If the tank level has lowered below 5 ft. in height the centrifugal recirculation pump should be restarted.
- Tank level monitoring is to take place once each week to ensure desired tank level is maintained.

Maintenance:

- Inspect all drainage valves, piping and flanges for leaks and excessive wear.
- Ensure that the tank level measurement display is functional.

2.2 Leachate Atomizer

The tank is outfitted with a centrifugal pump which quaffs leachate accumulation from the bottom of the tank and draws it upward through a 2" high-density polyethylene line to the roof of the tank where it is then forced, at a high rate of pressure, through a spray atomizer nozzle. The atomization process helps to strip the leachate of entrained gases and organic vapors such as methane and hydrogen sulfide by spraying the liquid high above the tank accumulation level in a 50 degree wide spray pattern. The atomization system is designed to run 24 hours a day 7 days a week, unless the tank circulation system is activated. Operation and maintenance duties and frequencies are as follows:

Operation:

- Check centrifugal pump to ensure that it is powered on. The start/stop buttons are located on the tank control panel inside the leachate system secondary containment wall.
- Inspect atomization discharge line valve to make sure that it is in the "on" position.
- Operational check of the leachate atomizer is to be performed once per day of operation.

Maintenance:

- Inspect centrifugal pump for leaks, damage, and excessive wear.
- Inspect piping for leaks, and excessive wear.
- The Bridgeton Landfill will maintain a spare centrifugal pump, stored onsite, to be used in the event of a Leachate Atomizer Pump failure. The readily available spare pump will be installed in the place of the malfunctioning pump to greatly reduce any Leachate Atomizer System down-time. Malfunctioning pumps will be rebuilt or replaced to insure that the landfill is not without a spare for an extended period of time.

2.3 Leachate Circulator

The leachate circulator serves the purpose of stirring the tank to break up any deposited sediment or build-up that has settled at the bottom of the tank and allow it to drain through the lower gravity-drain outlet. The leachate circulator is typically not in operation due to the operation of the atomizer. Being that the circulation system uses the same centrifugal pump to operate as the atomizer the two systems cannot run in tandem. To stir the tank the atomizer valve must be turned to the "off" position, and the circulator value must be moved to the "on" position. This will direct liquid to the circulator. Both valves must not remain closed for an extended period of time as this will cause a "dead-pan" scenario which may cause premature damage to the pump. The operation and maintenance duties and frequencies are as follows:

Operation:

- When operating the circulator, first completely open the circulation valve located at the inlet of the circulation piping near the tank centrifugal pump.

- Once the circulation valve is open completely close the atomizer valve.
- Reverse the process when finished.
- Check centrifugal pump to ensure that it is powered on. The start/stop buttons are located on the tank control panel inside the leachate system secondary containment wall.
- Do not operate the circulator for more than 24 hours so that the atomizer may be returned to service.
- This system should only be operated on an as-needed basis.

Maintenance:

- Inspect centrifugal pump for leaks, damage, and excessive wear.
- Inspect piping for leaks, and excessive wear.

2.4 Gas Extraction Vacuum Line

Gases present from the atomization of leachate are subsequently extracted through a 2" high-density polyethylene vacuum line located at the roof of the tank. The line is directed to the landfill's gas collection and control system network, where the captured gases are ultimately routed to the landfill flare and destroyed. The flare blower provides between 2" and 11" of vacuum at the tank for such gas removal. Similar to the gas collection system, the leachate system lines will develop condensate. As such, the leachate gas extraction system contains an underground sump which collects any accumulation of condensate in the line and pumps it back into the leachate collection system. This sump unit helps to return lost liquids to the leachate system and maintains a free flow of vacuum in the line by preventing it from "watering-in." The operation and maintenance frequency of the gas extraction vacuum line is as follows:

Operation:

- The gas extraction vacuum line is always in operation so long as the landfill gas collection and control system is also operational.
- A vacuum reading should be taken once each week to ensure that the system is flowing freely. The vacuum monitoring port is located on the vacuum line at eye-level just outside of the east section of the tank secondary containment wall.
- The pump in the condensate sump should be checked for operation once per week to ensure that any liquid accumulation is being removed from the system.
- In the event of a gas collection and control system malfunction, the carbon filtration system should be turned on.
- If necessary the vacuum to the tank can be shut off via the vacuum control valve located next to the vacuum monitoring port.

Maintenance:

- Inspect all vacuum lines and fittings shall be inspected for leaks and signs of damage or excessive wear.

2.5 Carbon Vessel Filtration System

As a redundancy to the gas extraction vacuum system, the Bridgeton Landfill has also implemented a carbon vessel filtration system. This system can apply vacuum to the tank and remove gases and vapor by drawing them out through a 6" PVC line in the tank's roof and directing them through a series of two granular activated-carbon vessels. The vessels

are arranged in a lead-lag scenario were the primary (lead) vessel is designed to remove 100% of all incoming toxic gasses. Monitoring ports are installed prior to the influent of the lead vessel to collect data on gas composition as it enters the carbon media. A second sampling port is installed at the effluent of the lead vessel to monitor for any break-through. Airflow from the lead vessel effluent is subsequently directed to the second (lag) vessel as a redundancy to ensure that no possible break-through of gases to the atmosphere occur. The effluent of the lag vessel is also monitored. The carbon filtration system has a vacuum pump that is independent of the gas collection and control system so that it can be operated in the event the latter system experiences a malfunction. This offers the ability to have uninterrupted gas and vapor removal at the leachate tank. When the carbon filtration system is in operation the operation and maintenance frequency is as follows:

Operation:

- In the event of a gas collection and control system malfunction the carbon filtration system shall be powered on. This can be done by positioning the carbon filtration system control lever to "on." The control lever is located on the panel, to the right of the main leachate tank control panel, inside the secondary containment area.
- During operation the three monitoring ports in the system should be read on a daily basis to ensure that hydrogen sulfide break-through at the lead vessel has not occurred. Monitoring for hydrogen sulfide will be performed using a 4-gas meter. In the event that hydrogen sulfide concentration at the effluent of the lead vessel reaches 5 ppm the carbon in the lead vessel shall be replaced.
- Replacement virgin granular activated-carbon is stored onsite. Once a 5 ppm hydrogen sulfide break-through is detected, spent carbon will be removed from the lead vessel using a drum-vacuum. The carbon will be containerized in 55-gallon drums and marked for proper disposal. Virgin carbon will be placed in the vessel and operation can be restored.
- During operation of the system a daily condensate accumulation check must be performed to insure that there has not been any accumulation in the demister box. Due to the installation of a condensate knock-out pot this scenario is unlikely under daily monitoring.
- The effluent to the atmosphere will be monitoring using a 4-gas meter as well to ensure overall system performance. The lag vessel will receive a carbon replacement when effluent concentration reach a level of 5 ppm hydrogen sulfide. Replacement virgin carbon for the lag vessel is also stored onsite.

Maintenance:

- Inspect all PVC, lines, piping, and valves in the carbon system network for leaks, damage, or excessive wear weekly.
- Inspect demister box to ensure lid is in place, seated, and free of damage weekly.
- Drain any condensate from the knock-pot as needed.
- Make sure that carbon filtration system vacuum pump is operational on a weekly schedule.

3.0 ADDITIONAL MEASURES

3.1 Bridgeton Landfill Discharge Junction Vault Monitoring

The Bridgeton Landfill has also installed an additional multi-gas monitoring port within the leachate discharge junction vault situated to the north of the leachate tank area. This vault is the last monitoring location of the leachate discharging from the landfill prior to entering the MSD pump station. The addition of this sampling port will allow the landfill to measure levels of methane and hydrogen sulfide in the leachate piping immediately prior to discharge. This sampling port will be monitored weekly to ensure that effluent leachate gas levels will not be excessive in the sanitary sewer system.

Metropolitan St. Louis
Sewer District
2350 Market Street
St. Louis, MO 63103
Phone: 314.768.6200
www.stlmsd.com

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Work Order Details

1884440: DEC INVESTIGATION

803ALLAN SHEPPARD
709HARMANN EST - T.C.
713HOLLENBERG - T.C.
737MARYLAND CASUALTY
811WESTLAKE

JOB PLAN - CPM/6346
5 @ .25 = 1.25

JOB PLAN - CPM/6347
5 @ 2.0

13019 BOENKER LN BRIDGETON 63044

Asset: E63828 STATION, SANITARY, 10O3-084S, WESTLAKE P-811, 1-5 MGD, REACH 21
Location: CP-P-811 CP-P-811-WESTLAKE
CI:

Sched Start:		**Site:**	CS	**Job Plan:**	
Sched Finish:		**Priority:**	5	**Supervisor:**	06013
Target Start:		**Work Type:**	CM	**Lead:**	
Target Finish:		**Status:**	INPRG	**Vendor:**	
Actual Start:	8/16/12	**Parent:**	1858561	**Owner:**	07524
Actual Finish:	8/16/12	**Failure Class:**	DEC	**Owner Group:**	
Report Date:	8/17/12	**Problem Code:**	COMP	**Service:**	
Reported By:	07524			**Service Group:**	
Crew ID:		**GL Account:**	1101.06035.51011.00.0000.000000	**Classification:**	DECINV

Specification

Attribute	Description	ALN Value	Numeric Value	Unit of Measure
ZIP CODE	ZIP CODE	63044		
LAND MARK OR CROSS ST	LAND MARK OR CROSS ST	ST. CHARLES ROCK ROAD		
RESPONSIBLE	RESPONSIBLE PARTY COMPANY NAME	REPUBLIC WASTE		

MSD 023963

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5 @ .25 = 1.25

JOB PLAN - CPM/6347
5 @ 2.0

13019 BOENKER LN BRIDGETON 63044

Specification

Attribute	Description	ALN Value	Numeric Value	Unit of Measure
PARTY COMPANY NAME				
SEVICE ADDRESS	SERVICE ADDRESS	13570 ST. CHARLES ROCK ROAD		
STATE	STATE	MO		
PHONE NUMBER	PHONE NUMBER	314-744-8168		
CITY	CITY	BRIDGETON		
EDUCATIONAL HANDOUT TYPE	EDUCATIONAL HAND OUT TYPE			
FILING STATUS	FILING STATUS	EXISTING		
HANDOUT #	HANDOUT NUMBER			
LAB SAMPLE MATCH #	LAB SAMPLE MATCH NUMBER	N/A		
REGULATORY AGENCY CONTACTED	REGULATORY AGENCY CONTACTED			
RESPONSIBLE PARTY	COMPANY NAME OR CLAIMANT NAME	REPUBLIC WASTE		
SOURCE CATAGORIES	SOURCE CATAGORIES	IDD-DISCHARGE OTHER		

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5 @ 2.0

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Specification

Attribute	Description	ALN Value	Numeric Value	Unit of Measure
STORM WATER RELATED	STORM WATER RELATED	NO		
WATERSHED	WATERSHED	MO RIVER WATERSHED		

Related Records

WO	Description	Class	Status	Relationship
1858561	CPM/CD / REACH 21 / PUMP STATION P.M.	WORKORDER	COMP	ORIGINATOR

Log

Date	Class	Created By	Subject	Description	Long Description
8/21/12	WORKORDER	JGRIB		DECINV SUMMERY	ON AUGUST 16, 2012, WHILE PERFORMING MONTHLY PUMP STATION INSPECTIONS, METROPOLITAN ST. LOUIS SEWER DISTRICT (MSD) PUMP STATION MAINTENANCE TECHNICIAN PAT LIMPERT DISCOVERED A SEWAGE OVERFLOW AT THE WESTLAKE PUMP STATION WET WELL. MR. LIMPERT CONTACTED MSD EMERGENCY RESPONSE UNIT (ERU) PER REPORTING REQUIREMENTS. DUE TO THE CIRCUMSTANCES SURROUNDING THE SEWAGE OVERFLOW AT THE WESTLAKE PUMP STATION (SEE MAXIMO WORK ORDER 1856570) A DIVISION OF

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811WESTLAKE

JOB PLAN - CPM/6346
5 @ .25 = 1.25

JOB PLAN - CPM/6347
5 @ 2.0

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Log

Date	Class	Created By	Subject	Description	Long Description
					ENVIRONMENTAL COMPLIANCE INVESTIGATION (DECINV) WAS INITIATED. THE RESULTS ARE AS FOLLOWS: - AS SEEN IN FIGURE 1, THE OVERFLOW WAS AN EMULSIFICATION/FOAMING EVENT OCCURRING WITHIN THE WET WELL THAT ESCAPED CONTAINMENT. AT THE TIME OF DISCOVERY (0745) THE OVERFLOW HAD CEASED. - OBSERVATIONS WITHIN THE WESTLAKE PUMP STATION WET WELL SHOW THE SOURCE OF THE EMULSIFICATION/FOAM TO BE DISCHARGING FROM A 12 TO 15 INCH PIPE ENTERING THE WET WELL FROM THE EAST. MSD INDUSTRIAL PRETREATMENT RECORDS INDICATE THE 12 TO 15 INCH PIPE DISCHARGES WASTEWATER SOLELY FROM THE BRIDGETON LANDFILL LOCATED TO THE NORTHEAST OF THE PUMP STATION. - MSD ISSUED BRIDGETON LANDFILL ¿NOTICE OF VIOLATION¿ (NOV) ON JUNE 20, 2012 FOR ¿ PROHIBITED DISCHARGES AND TREATMENT

MSD 023966

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811WESTLAKE

JOB PLAN - CPM/6346
5 @ .25 = 1.25

JOB PLAN - CPM/6347
5 @ 2.0

13019 BOENKER LN **BRIDGETON** **63044**

Log

Date	Class	Created By	Subject	Description	Long Description
					REQUIREMENTS. BRIDGETON LANDFILL HAS BEEN WORKING WITH MSD PRETREATMENT ENVIRONMENTAL ENGINEERING ASSOCIATE TOM BOEHM TO RESOLVE THE STATED VIOLATIONS IN THE NOV. - PER LANDFILL MANAGEMENT IT IS UNKNOWN WHAT MAY BE CAUSING THE EMULSIFICATION/FOAMING WITHIN THEIR SYSTEM. IT WAS INDICATED IN AN E-MAIL DATED AUGUST 16, 2012, BRIDGETON LANDFILL WOULD BE EXPLORING ANTI-FOAMING OPTIONS TO ADD TO THEIR LEACHATE TREATMENT/ DISCHARGE PROCESS (SEE ATTACHED E-MAIL). THE BRIDGETON LANDFILL IS MONITORED AND INSPECTED UNDER MSD PRETREATMENT REGULATIONS. IT IS UNDERSTOOD BY MSD ERU ENFORCEMENT/COMPLIANCE ACTION REGARDING OPERATIONS AT THE BRIDGETON LANDFILL WILL BE CONDUCTED THROUGH THE MSD PRETREATMENT GROUP.

MSD 023967

MSD Bypass Report

August 21, 2012 For the period August 01, 2011 thru August 31, 2011

SR No.	Parent WO	Child WO	Status	Start Date	Finish Date	WO Class	Problem	Cause	Remedy
N/A	1858561		COMP	7/31/12 10:28	8/16/12 12:20	MONTHLY			
N/A	1858561	1884313	REVCOMP	8/16/12 14:59	8/16/12 15:01	SSCU	SEW	UNKNOWN	CLEANED
N/A	1858561	1884440	INPRG	8/16/12 10:00	8/16/12 12:00	DECINV	COMP	IDD	1A
N/A	1858561	1884374	INPRG	8/16/12 10:00	8/16/12 12:00	DRY WEATHER BYP	SSO REASON	VANDALISM DUMPING	OTHER (COMMENT)

METROPOLITAN ST. LOUIS SEWER DISTRICT (MSD)

Report of Non-Capacity Related Sewer Overflow or Wastewater Treatment Plant Bypass

Report type: SSO | Incident Number: N/A

MSD Service Request: N/A | Work Order Number: 1884374

First Report Date & Time: 08/16/2012 07:45 | First Response Date & Time: 08/16/2012 07:45

Location Address: 13019 BOENKER LN, BRIDGETON 63044

Wastewater Treatment Plant Service Area and Permit Number:

Service Area Type: SANITARY SEWER | MSD Asset Number: E63828

Overflow Landmark or Cross Street: ST. CHARLES ROCK ROAD

Overflow Start Date/Time(Military): 08/16/2012 07:45 | Overflow End Date/Time(Military): 08/16/2012 07:45

Total Overflow Time (Minutes): 0 MIN | Asset Class & Size: PUMP

Total Overflow Volume (Gallons): ~100 GAL | Treatment Bypass Category: N/A

Problem/Cause: VANDALISM DUMPING

Corrective Action: OTHER (COMMENT)

Corrective Action Start Date/Time(Military): N/A N/A | Corrective Action End Date/Time(Military): N/A N/A

Strength of Overflow/Bypass: RAW SEWAGE | Affected Area: SOAKED IN SOIL

Receiving Stream Name: N/A | Length Impacted: N/A

Impact Major: N | Fish Kill: N | Samples Taken: N | Lab ID Number: N/A

Cleanup Needed: Y | Rake/Remove: N | Hydrant Flush: N | Cobra Flush: Y | Pump to Sewer: N

Flush by Rain: N | Other: N | Disinfectant: N | Disinfectant Date: N/A

Cleanup Start Date/Time(Military): 08/16/2012 11:00 | Cleanup End Date/Time(Military): 08/16/2012 12:00

COMMENTS: FOAM OVERFLOWED FROM PUMP STATION WET WELL. OVERFLOW HAD STOPPED AT TIME OF DISCOVERY. FOAM COBRA FLUSHED BACK TO PUMP STATION WET WELL.

REPORT CONTACT INFORMATION

Prepared By: JOSEPH J GRIB | Title: INDUSTRIAL WASTE INVESTIGATOR

Submitted By: _____ | Date: _____

Phone Number: _____

☐ 24-Hr Report (Initial)
☐ 5-Day Report (Final)
☐ Corrected

Note: All Non-Capacity Related Sewer Overflows and Wastewater Treatment Plant Bypasses must be reported to the Missouri Department of Natural Resources (MDNR) within 24 hours of MSD first becoming aware of the overflow. Reports may be FAXED to MDNR at 314-416-2970 during normal business hours and the MDNR Emergency Response number should be called on weekends and holidays at 1-573-634-2436. A written report must be mailed to local MDNR at 7545 S. Lindbergh, Suite 210, St. Louis, MO 63125, phone 314-416-2960 within five calendar days for the overflow.

MSD 023970

CB
DM

Tom Boehm

From: Sehie, Bryan <BSehie@republicservices.com>
Sent: Wednesday, August 01, 2012 9:09 AM
To: Tom Boehm
Subject: Re: More info
Attachments: image001.jpg; image004.jpg

Bridgeton Landfill
10038 0360

Good morning Tom, when the flare system has a malfunction it has a scada system that calls all of the site personnel immediately. In the event of a shut down or malfunction we receive this notification and immediately respond to the flare as a priority. In this event we would know to activate the carbon system as part of that response. However under normal operating conditions we feel that weekly readings are sufficient. A weekly frequency is the minimum of course, we actually monitor the system more often than that at present as we continue to pilot test all of our new systems. Please let me know if you have any questions or comments. Thanks, Bryan

Sent from my HTC smartphone on the Now Network from Sprint!

----- Reply message -----
From: "Tom Boehm" <TCBOEH@stlmsd.com>
To: "Sehie, Bryan" <BSehie@republicservices.com>
Subject: More info
Date: Wed, Aug 1, 2012 8:44 am

Bryan,

Another question:

As stated in the SOP you sent a while ago, the carbon vacuum system is designed as a redundancy to the flare vacuum system and is designed to pull only when the flare vacs fail or lose adequate negative pressure.

It looks as if the carbon system will be manually activated after finding something wrong with the primary system during weekly inspections. Would it be possible to have a more frequent check or some type of electronic monitoring that would alert you to failure quicker? I ask, because it seems that worst case would be the vacuum flare system could malfunctioning for an entire week prior to you knowing there is a problem and manually activating the carbon system.

Your thoughts?

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753
[cid:image001.jpg@01CD6FC1.D1C28590]

From: Sehie, Bryan [mailto:BSehie@republicservices.com]
Sent: Tuesday, July 31, 2012 2:40 PM
To: Tom Boehm

Subject: RE: More info

Good Afternoon Tom,

I ran some numbers using our current leachate flow, and I would estimate that if our storage tank were completely empty, and we discharged a typical leachate volume (with all pumps running simultaneously), that we could shut off our discharge to your pump station for a maximum of 10 hours. We never keep the tank completely empty under normal circumstances, but we could make arrangements to if you gave us advanced notice. Both the vacuum line and the carbon vessel system are operational now. We have installed an additional flare to the landfill which has allowed us to increase the vacuum to the tank for gas extraction. Recall, we were experiencing vacuum issues earlier this year. We have implemented the Carbon system, which has its own independent vacuum pump that can be operated in the event of a flare shutdown to maintain extraction on the tank. Please let me know if you have any additional questions.
Have a great day!
Thanks,
Bryan

Bryan Sehie | Environmental Specialist | Republic Services, Inc.
13570 St. Charles Rock Rd. | Bridgeton, MO 63044
' 314.744.8190 È314.443.0179
From: Tom Boehm [mailto:TCBOEH@stlmsd.com]<mailto:[mailto:TCBOEH@stlmsd.com]>
Sent: Tuesday, July 31, 2012 1:28 PM
To: Sehie, Bryan
Subject: More info

Bryan,

I was at a meeting the other day with the Operations folks who wanted to get a few things straight.

1) How long can you comfortable shut down the flow from the pretreatment tank to our pump station?

2) Has the vacuum system and activated charcoal system been tweaked so that it is running the way you want them to? If not, when will they be(best opinion)?

These were a couple of items that we had different understandings about.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753
[cid:image004.jpg@01CD6FC1.CD28B220]

REPUBLIC SERVICES

Mr. Chris Bulmahn
Associate Engineer
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

CB 8-29

July 24, 2012

Dear Mr. Bulmahn:

Second Quarter 2012 Self-Monitoring Report,
Bridgeton Landfill, LLC. Discharge Permit No. 0511559802-2 1003503000

Bridgeton Landfill, LLC. is submitting the Second Quarter 2012 leachate sampling and analysis report for the Bridgeton Landfill. On May 14, 2012 and May 15, 2012, landfill personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-2. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, of Indianapolis, Indiana.

Laboratory analytical results indicate that the detected level of Total Toxic Organics (TTO) for sampling point 008 exceeded the permitted limitation of 5.844 mg/L in the May 14-15, 2012 sample. Included with this letter is the analytical data report provided by Heritage Environmental Services, LLC. associated with that sample collection. The following table lists the detected concentration and the permitted maximum effluent discharge levels at sampling point 008:

Outfall	Parameter	Result	Permitted Instant Limitation
Outfall 008	TTO[1]	11.96 mg/L	5.844 mg/L

[1]TTO=Total Toxic Organics per 40 CFR 401.15

At the time of sample collection the Bridgeton Landfill, LLC. was experiencing malfunctions in three leachate collection sump systems on-site which may have increased TTO effluent concentrations at outfall 008 due to a reduction in overall leachate flow to the outfall. The flow reduction may have resulted in higher than typical TTO constituent concentrations. On June 11, 2012 MSD issued the Bridgeton Landfill a Notice of Violation for the exceedance of TTO constituents in the May 14-15, 2012 sample. During the first week of June 2012, the three leachate collection sumps were repaired and are pumping a greater leachate volume to the sampling point 008.

The Bridgeton Landfill utilizes an 89,000-gallon capacity Aquastore liquid collection tank to contain, recirculate, atomize, and subsequently extract gases entrained in the leachate prior to discharging. On June 22, 2012 repair work was performed to the extraction system that removes these constituents and directs them to the on-site flare for destruction. The repair work included; eliminating airflow

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restriction in the system by raising sags that had recently developed in the extraction-vent piping network; and abating liquid accumulation by replacing the system's pneumatic condensation-removal pump.

On July 5, 2012 the Bridgeton Landfill installed a supplemental candlestick flare to work in tandem with the existing gas collection and control system at the site. This additional flare capacity will provide an increase in vacuum to the liquid tank which will ensure greater leachate gas-extraction efficiency prior to discharge.

In order to further increase effectiveness in maintaining permitted wastewater effluent concentration levels, the Bridgeton Landfill has also implemented a carbon vessel filtration system. The system, installed on July 6, 2012, provides additional separation of the gaseous constituents from the leachate produced at the landfill by filtering gases, otherwise not extracted by the existing extraction system, through a series of two granular activated-carbon vessels. The vessels are monitored daily by Bridgeton Landfill personnel and granular activated-carbon is replaced as necessary. The Bridgeton Landfill will provide an operations manual detailing the scheduled monitoring and maintenance of the carbon filtration system to MSD for reference.

As requested by MSD, the Bridgeton Landfill collected a series of three resamples to confirm that the leachate discharge is in compliance with permitted limitations. Samples were collected on the dates of June 21, June 25, and June 26, 2012 and shipped to Heritage Environmental Services for analysis of TTO as listed in 40 CFR 401.15. Additional sample bottles were required to be collected on June 27, 2012 due to a laboratory error that resulted in a partial sample loss of June 21, 2012 collection. All resampling results are enclosed with this report and demonstrate that the Bridgeton Landfill is in compliance with Discharge Permit No. 0511559802-2. The Bridgeton Landfill will continue to inspect and maintain all leachate collection and treatment systems to preclude any discharges that exceed permitted limitations.

The MSD Self-Monitoring Report Forms are provided as Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Second Quarter 2012 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. during the Second Quarter 2012 Sampling event of May 14-15, 2012, and each of the three (3) TTO resampling events conducted in June 2012. Attachment 4 provides analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records for the Bridgeton Landfill, LLC for April, May, and June 2012.

Please contact David Vasbinder, Environmental Manager at 314-744-8166, or myself at 314-744-8190 if you have any questions or comments.

Sincerely,

BRIDGETON LANDFILL, LLC.

Bryan K. Sehie
Environmental Specialist

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC.

Permit No: 0511559802-2 Effective Date: 12/1/2010 Expiration Date: 11/30/2015

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐(JAN-MAR) ☑ (APR-JUNE) ☐(JULY-SEPT) ☐ (OCT-DEC)

Samples Collected By: **Bryan Sehie**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmercia Laboratories, Inc.**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨		008						
DATES ON WHICH SAMPLES WERE COLLECTED ⇨		5/14/2012 and 5/15/2012						
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨		1000, 1400, 1830, 1000						
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW	***	M	84,470					GPD
Biochemical Oxygen Demand	***	C	7030					mg/L
Chemical Oxygen Demand	***	C	9500					mg/L
pH Acidic (<7)	5.5	G	6.89					SU
pH Basic (≥7)	11.5	G						SU
Temperature	60	G	31.4					Deg C
Total Suspended Solids	***	C	660					mg/L
Ammonia (as N)	***	C	410					mg/L
Arsenic (Total)	0.4	C	0.36					mg/L
Cadmium (Total)	0.7	C	BDL					mg/L
Chromium (Total)	5	C	0.070					mg/L
Copper (Total)	2.7	C	BDL					mg/L
Lead (Total)	0.4	C	BDL					mg/L
Mercury (Total)	0.01	C	BDL					mg/L
Nickel (Total)	2.3	C	0.048					mg/L
Zinc (Total)	3	C	0.088					mg/L
Total Toxic Organics	5.844	G	11.96					mg/L
Oil and Grease (Total)	200	G	16.6					mg/L
Gross Alpha	***	C	29 ± 30					pCi/L
Gross Beta	***	C	160 ± 33					pCi/L
Gross Gamma (as Cesium-137)	***	C	U					pCi/L
Radium-226	***	C	8.6 ± 2.6					pCi/L

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Radium-228	***	C	3.7 ± 3.3					pCi/L
Uranium	***	C	BDL					ug/L

Notes: BDL = Below Detection Limit
NR = Not required during this monitoring event

You must complete and sign the certification statements on the second page.

INDUSTRIAL USER SELF MONITORING REPORT PAGE 2

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following.
Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS**.

B	NO CHANGE IN WASTEWATER DISCHARGE AT ACTIVE CONNECTIONS WITHOUT SAMPLE POINTS
	For permit special conditions that waive monitoring at active connection points which are not specified as sample points in your permit, you are required to make the following certification: _____ I certify, since the last discharge monitoring report, there has been no change in the character of wastes discharged at those active connection points which are not specified in my permit.

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below: 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. Print or type name of signing official: **Bryan Sehie**_____ Title: **Environmental Specialist**_____ Telephone: **(314)-744-8190**_____ Signature: _____ Date: _____

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Radium-228	***	C	3.7 ± 3.3					pCi/L
Uranium	***	C	BDL					ug/L

Notes: BDL = Below Detection Limit
NR = Not required during this monitoring event

You must complete and sign the certification statements on the second page.

INDUSTRIAL USER SELF MONITORING REPORT PAGE 2

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	For permit special conditions that waive monitoring at active connection points which are not specified as sample points in your permit, you are required to make the following certification: BKS I certify, since the last discharge monitoring report, there has been no change in the character of wastes discharged at those active connection points which are not specified in my permit.

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Christopher J. Bulmahn Bridgeton Landfill

1003803000

From: Sehie, Bryan <BSehie@republicservices.com>
Sent: Monday, August 27, 2012 2:25 PM
To: Christopher J. Bulmahn
Subject: Bridgeton and Mo Pass Self Monitoring Reports with Signatures
Attachments: Bridgeton Mo Pass Leachate Report Forms with Signatures.pdf

Good Afternoon Chris,

I have attached the Bridgeton Landfill and Mo Pass Landfill Self-Monitoring Reports with signatures and initials. Thank you for bringing that to my attention. Please let me know if you need anything else. Have a great day!

Thanks,

Bryan

Bryan Sehie | Environmental Specialist | Republic Services, Inc.

13570 St. Charles Rock Rd. | Bridgeton, MO 63044

☎ 314.744.8190 314.443.0179

03
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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-2

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: [ ] (Jan-Mar) X [(Apr-Jun) [(July-Sept) [(Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	8.43×10^8
Gross Beta	4.66×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	2.50×10^8
Radium - 228	1.08×10^8
Total Activity Discharged :	5.86×10^9

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

[X] I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: Bryan Sehie

Title: Environmental Specialist

Telephone: 314-744-8190

Signature:

Date:

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see next page

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-2

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: [ ] (Jan-Mar) X [ ] (Apr-Jun) [ ] (July-Sept) [ ] (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

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B. **Radioactive Materials Discharge Report Certification**

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: Bryan Sehie

Title: Environmental Specialist

Telephone: 314-744-8190

Signature: Bryan Sehie

Date: 7/18/12

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.B.2 of the Bridgeton Landfill MSD Permit (Permit 0511559802-2), each quarterly discharge report shall specify the activity discharged to the sewer system by radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Second Quarter 2012 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\text{Discharged Activity} = \text{Activity Concentration} \times \text{Discharged Volume}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Second Quarter 2012 monitoring period.

Constituent	Result	Units
Gross Alpha	29 ± 30	pCi/L
Gross Beta	160 ± 33	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	8.6 ± 2.6	pCi/L
Radium – 228	3.7 ± 3.3	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Second Quarter 2012 monitoring period:

- April 2012: 1,366,368 gallons
- May 2012: 1,586,897 gallons
- June 2012: 4,733,512 gallons

Summation of the monthly volumes provides the total volume discharged during the Second Quarter 2012 period:

$$1{,}366{,}368\ gal + 1{,}586{,}897\ gal + 4{,}733{,}512\ gal = 7{,}686{,}777\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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$$7{,}686{,}777\ gal \times \frac{3.785\ L}{gal} = 29{,}094{,}451\ L$$

Therefore, to determine the discharged activity attributable to Gross Alpha, multiply the activity concentration by the discharged volume:

$$\frac{29\ pCi}{L} \times 29{,}094{,}451\ L = 8.43 \times 10^{8}\ pCi$$

Similarly, for Gross Beta:

$$\frac{160\ pCi}{L} \times 29{,}094{,}451\ L = 4.66 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{8.6\ pCi}{L} \times 29{,}094{,}451\ L = 2.50 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{3.7\ pCi}{L} \times 29{,}094{,}451\ L = 1.08 \times 10^{8}\ pCi$$

Summation of the four (4) results yields the total discharged activity for the Second Quarter 2012 reporting period:

$$8.43 \times 10^{8}\ pCi + 4.66 \times 10^{9}\ pCi + 2.50 \times 10^{8}\ pCi + 1.08 \times 10^{8}\ pCi = 5.86 \times 10^{9}\ pCi$$

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-MAY-12	A950242
	Completed	**PO Number**
	05-JUN-12	4337-12001-9 (2012)
	Printed	**Sampled**
	27-JUN-12	15-MAY-12 10:00

Report To	Bill To
BRIAN SEHIE BRIDGETON LANDFILL 13570 ST. CHARLES ROCK RD BRIDGETON, MO 63044	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: LEACHATE OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 63070
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: ANNUAL LEACHATE
PERMIT: 830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B-2001 NELAC:Y

Analyst: C. HIPSKIND Analysis Date: 16-MAY-12 16:43 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	7030	200	mg/L

1:100 Dilution.

The CCV is biased low.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: E. SOTKIEWICZ Analysis Date: 29-MAY-12 16:30 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	9500	100	mg/L

1:10 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: C. ANYANWUTAKU Analysis Date: 21-MAY-12 14:00 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	660	1	mg/L

Filtered less sample due to sample matrix.

AMMONIA DISTILLATION SM4500-NH3 B - 1997

Analyst: T. DRIGGERS Analysis Date: 21-MAY-12 10:00 Instrument: PREP Test: G263.7.0

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Sample ID: A950242 LEACHATE OUTFALL 008

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	250		mL

The prep analyst decreased the initial weight/volume due to the matrix of the sample and/or a strong odor.

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D - 1997 NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 22-MAY-12 08:30 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM4500-NH3 B - 1997 P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	410	25	mg/L

1:50 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: S. BOXUM Analysis Date: 30-MAY-12 14:20 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	16.6	5.0	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: K. KAMARA Analysis Date: 24-MAY-12 09:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M403.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.36	0.010	mg/L

CADMIUM ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M408.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M410.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
CHROMIUM	0.070	0.010	mg/L

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Sample ID: A950242 LEACHATE OUTFALL 008

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

LEAD ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M416.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.010	mg/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	0.048	0.0050	mg/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	0.088	0.020	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 NELAC:Y

Analyst: S. O'NEAL Analysis Date: 30-MAY-12 08:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1 REV. 3.0 NELAC:Y

Analyst: S. O'NEAL Analysis Date: 31-MAY-12 09:05 Instrument: CVAA Test: M420.2.0

Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

Analyst: N. NUBANI Analysis Date: 16-MAY-12 Instrument: PREP Test: P243.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

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MSD 023985

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Sample ID: A950242 LEACHATE OUTFALL 008

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: J. MINNIEAR, II Analysis Date: 21-MAY-12 06:14 Instrument: GC/MS SVOA Test: O501.3.0

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
2,4,6-TRICHLOROPHENOL	BDL	500	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	500	ug/L
2-CHLOROPHENOL	BDL	500	ug/L
2,4-DICHLOROPHENOL	BDL	500	ug/L
2,4-DIMETHYLPHENOL	BDL	500	ug/L
2-NITROPHENOL	BDL	500	ug/L
4-NITROPHENOL	BDL	500	ug/L
2,4-DINITROPHENOL	BDL	1000	ug/L
4,6-DINITRO-O-CRESOL	BDL	500	ug/L
PENTACHLOROPHENOL	BDL	500	ug/L
PHENOL	EX	500	ug/L
ACENAPHTHENE	BDL	500	ug/L
BENZIDINE	BDL	1000	ug/L
1,2,4-TRICHLOROBENZENE	BDL	500	ug/L
HEXACHLOROBENZENE	BDL	500	ug/L
HEXACHLOROETHANE	BDL	500	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	500	ug/L
2-CHLORONAPHTHALENE	BDL	500	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	500	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	500	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	500	ug/L
3,3'-DICHLOROBENZIDINE	BDL	500	ug/L
2,4-DINITROTOLUENE	BDL	500	ug/L
2,6-DINITROTOLUENE	BDL	500	ug/L
FLUORANTHENE	BDL	500	ug/L
4-CHLOROPHENYL-PHENYLETHER	BDL	500	ug/L
4-BROMODIPHENYL ETHER	BDL	500	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	500	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	500	ug/L
HEXACHLOROBUTADIENE	BDL	500	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	500	ug/L
ISOPHORONE	BDL	500	ug/L
NAPHTHALENE	BDL	500	ug/L
NITROBENZENE	BDL	500	ug/L
N-NITROSODIMETHYLAMINE	BDL	500	ug/L
N-NITROSO-DIPROPYLAMINE	BDL	500	ug/L
N-NITROSODIPHENYLAMINE	BDL	500	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	500	ug/L

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Sample ID: A950242 LEACHATE OUTFALL 008

(BENZYLBUTYLPHTHALATE) BUTYLBENZYLPHTHALATE	BDL	500	ug/L
DI-N-BUTYLPHTHALATE	BDL	500	ug/L
DI-N-OCTYLPHTHALATE	BDL	500	ug/L
DIETHYLPHTHALATE	BDL	500	ug/L
DIMETHYLPHTHALATE	BDL	500	ug/L
BENZ(A)ANTHRACENE	BDL	500	ug/L
BENZO(A)PYRENE	BDL	500	ug/L
BENZO(B)FLUORANTHENE	BDL	500	ug/L
BENZO(K)FLUORANTHENE	BDL	500	ug/L
CHRYSENE	BDL	500	ug/L
ACENAPHTHYLENE	BDL	500	ug/L
ANTHRACENE	BDL	500	ug/L
BENZO(G,H,I)PERYLENE	BDL	500	ug/L
FLUORENE	BDL	500	ug/L
PHENANTHRENE	BDL	500	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	500	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	500	ug/L
PYRENE	BDL	500	ug/L
1,2-DIPHENYLHYDRAZINE	BDL	500	ug/L
2-METHYLPHENOL (O-CRESOL)	BDL	500	ug/L
3-METHYLPHENOL (M-CRESOL)	*	500	ug/L
4-METHYLPHENOL (P-CRESOL)	* 3100	500	ug/L
...			
SURROGATE RECOVERY			

2-FLUOROPHENOL	D		% Rec
PHENOL-D5	D		% Rec
NITROBENZENE-D5	D		% Rec
2-FLUOROBIPHENYL	D		% Rec
2,4,6-TRIBROMOPHENOL	D		% Rec
TERPHENYL-D14	D		% Rec

DUE TO LABORATORY INSTRUMENT CONSTRAINTS, BENZIDINE AND 2,4-DINITROPHENOL ARE REPORTED AT DETECTION LIMITS OF 1000 UG/L INSTEAD OF 500 UG/L

1:50 Dilution

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

NOTE: * 3-Methylphenol and 4-Methylphenol co-elute.

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Sample ID: A950242 LEACHATE OUTFALL 008

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: J. MINNIEAR, II Analysis Date: 21-MAY-12 15:32 Instrument: GC/MS SVOA Test: O501.3.1

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
PHENOL	7700	1000	ug/L
...			
SURROGATE RECOVERY			

2-FLUOROPHENOL	D		% Rec
PHENOL-D5	D		% Rec
NITROBENZENE-D5	D		% Rec
2-FLUOROBIPHENYL	D		% Rec
2,4,6-TRIBROMOPHENOL	D		% Rec
TERPHENYL-D14	D		% Rec

1:100 Dilution

Dilution necessary due to high concentration of target analytes.

VOLATILE PRIORITY POLLUTANTS EPA 624 NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 21-MAY-12 17:59 Instrument: GC/MS VOA Test: O502.3.0

Parameter	Result	Det. Limit	Units
ACROLEIN	BDL	500	ug/L
ACRYLONITRILE	BDL	700	ug/L
BENZENE	770	10	ug/L
BROMOFORM	BDL	10	ug/L
CARBON TETRACHLORIDE	BDL	10	ug/L
CHLOROBENZENE	72	10	ug/L
CHLOROETHANE	BDL	10	ug/L
2-CHLOROETHYLVINYLETHER	BDL	10	ug/L
CHLOROFORM	BDL	10	ug/L
DIBROMOCHLOROMETHANE	BDL	10	ug/L
BROMODICHLOROMETHANE	BDL	10	ug/L
1,1-DICHLOROETHANE	BDL	10	ug/L
1,2-DICHLOROETHANE	18	10	ug/L
1,1-DICHLOROETHENE	BDL	10	ug/L
1,2-DICHLOROPROPANE	BDL	10	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	10	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	10	ug/L
ETHYL BENZENE	130	10	ug/L
BROMOMETHANE	BDL	10	ug/L
CHLOROMETHANE	BDL	10	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	10	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	10	ug/L

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Sample ID: A950242 LEACHATE OUTFALL 008

TETRACHLOROETHENE	BDL	10	ug/L
TOLUENE	170	10	ug/L
1,2-DICHLOROETHENE (CIS AND TRANS)	BDL	10	ug/L
1,1,1-TRICHLOROETHANE	BDL	10	ug/L
1,1,2-TRICHLOROETHANE	BDL	10	ug/L
TRICHLOROETHENE	BDL	10	ug/L
TRICHLOROFLUOROMETHANE	BDL	10	ug/L
VINYL CHLORIDE	BDL	10	ug/L
2-BUTANONE	EX	20	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	100		% Rec
TOLUENE-D8	97		% Rec
4-BROMOFLUOROBENZENE	105		% Rec

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

Acrolein & Acrylonitrile reported only for screening purposes. Results should be considered estimated.

PH6

1:10 Dilution.

ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

Analyst: B. WOOD | Analysis Date: 17-MAY-12 | Instrument: PREP | Test: P223.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	10		mL

VOLATILE PRIORITY POLLUTANTS EPA 624 NELAC:Y

Analyst: H. WILLIAMS | Analysis Date: 24-MAY-12 17:40 | Instrument: GC/MS VOA | Test: O502.3.1

Parameter	Result	Det. Limit	Units
2-BUTANONE	20000	1000	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	100		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	111		% Rec

1:100 Dilution.

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Sample ID: A950242 LEACHATE OUTFALL 008

Sample reanalyzed outside of holding time.

ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 NELAC:Y

Analyst: A. DUKES Analysis Date: 21-MAY-12 21:41 Instrument: GC/ECD Test: O305.0.0

Prep: ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608 P223.1.0

Parameter	Result	Det. Limit	Units
ALPHA-BHC	BDL	10	ug/L
BETA-BHC	BDL	10	ug/L
DELTA-BHC	BDL	10	ug/L
GAMMA-BHC (LINDANE)	BDL	10	ug/L
HEPTACHLOR	BDL	10	ug/L
ALDRIN	BDL	10	ug/L
HEPTACHLOR EPOXIDE	BDL	10	ug/L
ENDOSULFAN I	BDL	10	ug/L
DIELDRIN	BDL	10	ug/L
4,4'-DDE	BDL	10	ug/L
ENDRIN	BDL	10	ug/L
ENDOSULFAN II	BDL	10	ug/L
4,4'-DDD	BDL	10	ug/L
ENDOSULFAN SULFATE	BDL	10	ug/L
4,4'-DDT	BDL	10	ug/L
METHOXYCHLOR	BDL	10	ug/L
ENDRIN ALDEHYDE	BDL	10	ug/L
ALPHA-CHLORDANE	BDL	10	ug/L
GAMMA-CHLORDANE	BDL	10	ug/L
CHLORDANE	BDL	10	ug/L
TOXAPHENE	BDL	10	ug/L
PCB AROCLOR 1016	BDL	10	ug/L
PCB AROCLOR 1221	BDL	10	ug/L
PCB AROCLOR 1232	BDL	10	ug/L
PCB AROCLOR 1242	BDL	10	ug/L
PCB AROCLOR 1248	BDL	10	ug/L
PCB AROCLOR 1254	BDL	10	ug/L
PCB AROCLOR 1260	BDL	10	ug/L
...			
SURROGATE RECOVERY			

DECACHLOROBIPHENYL (DCB)	41.4		% Rec

Matrix interference may mask low level analytes.

Sample Comments

* See Note for Parameter
BDL Below Detection Limit

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MSD 023990

01049316

GE

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Attention: 10590
BOD Short Hold

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MSD 023991

Submitter Name: MO-ALLIED-BRIDGETON LANDFILL (8945)
Project Name: LEACHATE - BRIDGETON LANDFILL (5586)
Z Quote No: Z140306
PO No: 4337-12001-9 (2012)
Heritage Contact CHRISTOPHER BOYLE (317)390-3128

Sample Turn Around Time
Standard: X Rush Date ___/___/___ (Mo Day Yr)
Accelerated TAT subject to Additional Charge.
Date must be Accepted and Approved by Lab.

Sampled By: Bryan Sehie / Republic Services

Analyses Requested (Note special detection limits or methods)

Comments: Hey Chris, what happened to the carbon copy COC's?
Composite Samples collected in 4 aliquots on 5-14-12 @ 1100, 1400, and 1830 and 5-15-12 @ 1100

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample Type (Matrix): Water, Soil, Oil, Sludge, Swipe, Other	Number of Containers	PCB/PEST, SVL BNA WW	HEM(O&G)	COD, NH3	BOD, TSS	VOL	As, Cd, Cr, Cu, Hg, Ni, Pb, Zn	Remarks:	Lab use only Sample No.
See Comments	AM PM	X		Bridgeton Leachate Outfall 008	GW	4			1	2		1	Composite: See Comments for Date/Time	A950242
5/15/12	1100 AM PM		X	Bridgeton Leachate Outfall 008	GW	10	4	2			4		KS 1/4 3/4	
	AM PM													
	AM PM													
	AM PM													
	AM PM													
	AM PM													
	AM PM													
	AM PM													
	AM PM													

Relinquished by: (Signature) Bryan Sehie Date/Time 5/15/12 / 1200
Received by: (Signature) FedEx
Relinquished by: (Signature)
Received by: (Signature)
Relinquished by: (Signature)
Received for Laboratory: (Signature)

Ref: Z140306 BRIDGETO Date: 25Apr12
Dep:
Wgt: 45.00 LBS
DV: 0.00
Svc: STANDARD OVERNIGHT
TRCK: 9649 0970 2454

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

Date 5/16/12 Time 0920
3.0 (0.6)°C
Received On Ice Yes / No

Laboratory use only	Yes	No	NA
Custody seals intact on cooler?	✓		
C. seals intact on containers?			✓
Broken containers?		✓	
With sample labels?	✓		
Containers for testing?	✓		
Headspace issues acceptable?	✓		
Holding time(s) acceptable?	✓		
Preservative pH's acceptable?	✓		
Was pH left unadjusted?	✓		

Send Report To:
Co: HERST AND ASSOCIATES
Addr: 4890 SOUTH HIGHWAY 94
ST. CHARLES, MO 63304
Attn: JON WILKINSON Bryan Sehie
Phone: (636)939-9111 bsehie@republicservices.com
Fax: (636)939-9757 314-744-5190
email: jwilkinson@herstassociates.com

Herst & Associates, Inc

Client Sample ID: BRIDGETON LEACHATE OUTFALL 008

Radiochemistry

Lab Sample ID: F2E150442-001
Work Order: MTKK2
Matrix: WATER

Date Collected: 05/15/12 1000
Date Received: 05/15/12 1320

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L	Batch # 2137231		Yld % 68
Radium 228	3.7	U	3.3	1.0	5.3	05/16/12	05/31/12
Gross Alpha/Beta EPA 900				pCi/L	Batch # 2142038		Yld %
Gross Alpha	29	U	30	3	46	05/21/12	05/25/12
Gross Beta	160		33	4	29	05/21/12	05/25/12
Radium 226 by EPA 903.0 MOD				pCi/L	Batch # 2137230		Yld % 75
Radium (226)	8.6		2.6	1.0	2.3	05/16/12	05/31/12
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	Batch # 2146117		Yld %
Cesium 137	-1.4	U	6.6	20.0	12	05/25/12	05/30/12

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

F2E150442

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Herst & Associates, Inc

Client Sample ID: BRIDGETON LEACHATE OUTFALL 008 DUP

Radiochemistry

Lab Sample ID: F2E150442-001X
Work Order: MTKK2
Matrix: WATER

Date Collected: 05/15/12 1000
Date Received: 05/15/12 1320

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 2137230	Yld % 100
Radium (226)	13.4		3.1	1.0	2.0	05/16/12	05/31/12
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 2137231	Yld % 86
Radium 228	6.2		2.8	1.0	4.0	05/16/12	05/31/12
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 2146117	Yld %
Cesium 137	1.9	U	5.3	20.0	9.4	05/25/12	05/30/12

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

F2E150442

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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

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MSD 023994

Client	Republic Services, Inc. / Bridgeton Landfill
Project Manager	Bryan Sehie
Date	5/15/12
Chain of Custody Number	
Address	13570 St. Charles Rock Rd.
Telephone Number (Area Code)/Fax Number	314-744-8190
Lab Number	
Page	1 of 1
City	Bridgeton
State	MO
Zip Code	63043
Site Contact	Bryan Sehie
Lab Contact	Lynn Fussner
Project Name and Location (State)	Allied Waste Systems - Bridgeton Landfill, MO
Carrier/Waybill Number	
Contract/Purchase Order/Quote No.	

Analysis (Attach list if more space is needed): Gamma Gross A/B; Ra 226; Ra 228

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sed.	Soil	Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Gamma Gross A/B	Ra 226	Ra 228	Special Instructions/ Conditions of Receipt
Bridgeton Leachate Outfall 008	Various	Various		X					2				X	X		Composite sample collected @
	See Comments →															5-14-12 @ 1000
																5-14-12 @ 1400
																5-14-12 @ 1830
																5-15-12 @ 1000

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Bryan Sehie	5/15/12	1:20	1. Received By: [signature]	5-15-12	1:320
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

TestAmerica St. Louis

01080469

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11200

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MSD 023995

Submitter Name: MO-ALLIED-BRIDGETON LANDFILL (8945)

Project Name: LEACHATE - BRIDGETON LANDFILL (5586)

Z Quote No: Z157933

PO No: 4337-12001-9 (2012)

Heritage Contact CHRISTOPHER BOYLE (317)390-3128

Sample Turn Around Time

Standard: X Rush Date ___/___/___ (Mo Day Yr)

Accelerated TAT subject to Additional Charge.

Date must be Accepted and Approved by Lab.

Sampled By: Bryan Sehie

Analyses Requested (Note special detection limits or methods)

Comments:

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample Type (Matrix): Water, Soil, Oil, Sludge, Swipe, Other	Number of Containers	PCB/PEST, SVL BNA WW	VOL	Remarks:	Lab use only Sample No.
6/21/12	1145 AM PM		X	Bridgeton Leachate Outfall 008	Water	8	4	4		A954235
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	6/21/12 / 1400	FedEx #9848 0970 4630
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Received for Lab by: (Signature) [signature]	Date 6/22/12	Temperature 3.8 (3.4) °C
	Time 0520	Received On Ice Yes / No

Laboratory use only	Yes	No	NA
Custody seals intact on cooler?	✓		
C. seals intact on containers?			✓
Broken containers?		✓	
COC agree with sample labels?	✓		
Correct containers for testing?	✓		
Headspace issues acceptable?	✓		
Holding time(s) acceptable?	✓		
Preservative pH's acceptable?	✓		
Was pH left unadjusted?	✓		

Send Report To:

Co: BRIDGETON LANDFILL
Addr: 13570 ST. CHARLES ROCK RD
BRIDGETON, MO 63044
Attn: BRIAN SEHIE
Phone: (314)739-1919
Fax: (314)739-2588
email: bsehie@repubicservices.com

01080638

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS
7901 W Morris St Indianapolis, IN 46231
www.heritage-enviro.com (800)827-4374 Fax:(317)486-5095

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MSD 023996

Submitter Name: MO-ALLIED-BRIDGETON LANDFILL (8945)
Project Name: LEACHATE - BRIDGETON LANDFILL (5586)
Z Quote No: Z157933
PO No: 4337-12001-9 (2012)
Heritage Contact CHRISTOPHER BOYLE (317)390-3128

Sample Turn Around Time — Accelerated TAT subject to Additional Charge.
Standard: X Rush Date ___/___/___ (Mo Day Yr) — Date must be Accepted and Approved by Lab.

Sampled By: Bryan Sehie - Republic Services

Analyses Requested (Note special detection limits or methods)

Comments: VOC's being resampled to to breakage of VOC bottle! from 6/21/12 Sample Collection

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample Type (Matrix): Water, Soil, Oil, Sludge, Swipe, Other	Number of Containers	PCB/PEST, SVL BNA WW	VOL	Remarks:	Lab use only Sample No.
6/27/12	1505 AM PM		X	Bridgeton Leachate Outfall 008	W	4		4	VOC's Only	A954666
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									

Ref: Z157933 1KIT/COO Date: 15Jun12
Dep: Wgt: 20.00 LBS
DV: 0.00
Svc: STANDARD OVERNIGHT Master 9848 0970 4777 TRCK: 9848 0970 4788.

SHIPPING:	0.00
SPECIAL:	0.00
HANDLING:	0.00
TOTAL:	0.00

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Bryan Sehie	6/27/12 1600	Fed Ex
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Received for Lab by: (Signature)	Date 6/28/12	Temperature 3.4 (3.0) °C
	Time 0855	Received On Ice Yes / No

Laboratory use only	Yes	No	NA
Custody seals intact on cooler?		—	
C. seals intact on containers?			—
Broken containers?		—	
COC agree with sample labels?	✓		
Correct containers for testing?	✓		
Headspace issues acceptable?	✓		
Holding time(s) acceptable?	✓		
Preservative pH's acceptable?	✓		
Was pH left unadjusted?	✓		

Send Report To:
Co: BRIDGETON LANDFILL
Addr: 13570 ST. CHARLES ROCK RD
BRIDGETON, MO 63044
Attn: BRIAN SEHIE
Phone: (314)739-1919
Fax: (314)739-2588
email: bsehie@repubicservices.com

2012

Bridgeton Landfill LLC
Monthly Leachate Outfall Report

7/20/2012 Filed in 15.4

CS 7-27

Month	Precipitation Inches	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	2.34	2/1/2012	4,472,356	144,270	597,908.56	5,979.09
February	1.99	2/29/2012	3,474,632	112,085	464,522.99	4,645.23
March	3.33	4/2/2012	1,343,131	43,327	179,562.97	1,795.63
April	7.25	5/1/2012	1,366,368	44,076	182,669.52	1,826.70
May	1.60	5/31/2012	1,586,897	51,190	212,152.01	2,121.52
June	1.97	6/29/2012	4,733,512	152,694	632,822.46	6,328.22

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REPUBLIC SERVICES

Mr. Chris Bulmahn
Associate Engineer
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

CJ 7-30

July 24, 2012

Dear Mr. Bulmahn:

Request to Rescind Notice of Violation, Bridgeton Landfill
Bridgeton Landfill, LLC. Discharge Permit No. 0511559802-2 1003 803000

On June 11, 2012 the Bridgeton Landfill received a letter of Notice of Violation (NOV) for Wastewater Discharge Permit No. 0511559802-2 from the Metropolitan St. Louis Sewer District (MSD) as a result of "elevated levels" of constituents collectively referred to as Total Toxic Organics (TTO) under 40 CFR 401.15.

Laboratory analytical results from a sample that was collected on the dates of May 14-15, 2012 indicate that the detected level of TTO in the leachate at the Bridgeton Landfill (sampling point 008) exceeded the permitted limitation of 5.844 mg/L. The TTO value of the sample was reported as having a combined 11.96 mg/L.

During the week of the May 14-15, 2012 sample collection the Bridgeton Landfill. was experiencing malfunctions in three leachate collection sump systems on-site which may have increased TTO effluent concentrations at sampling point 008 due to a reduction in overall leachate flow to the outfall. This flow reduction resulted in higher than typical TTO concentration on the day sampling occurred.

As instructed by MSD, the Bridgeton Landfill collected a series of additional samples, representative of normal operational conditions, at leachate sample point 008. The additional samples were collected utilizing grab methodology, on the dates of June 21, 25, 26, and 27, 2012 and submitted to Heritage Environmental Services, LLC. of Indianapolis, IN for analysis. A full TTO analytical kit was collected during the June 21, 2012 sampling effort however, due to a laboratory error, a portion of the bottles were broken while awaiting analysis. Heritage Environmental Services, LLC. provided replacement bottles to the Bridgeton Landfill for the missing analytes. The resample was collected on June 27, 2012. Therefore laboratory results for the TTO sampling efforts of June 21, and June 27, 2012 are reported together by Heritage Environmental Services, LLC.

Reported TTO values from samples collected on June 21 and 27, June 25, and June 26 were 0.785 mg/L, 0.856 mg/L, and 2.429 mg/L, respectively. The results of these additional samples represent a full week of discharge operation at the Bridgeton Landfill and demonstrate that the facility is in compliance with Discharge Permit No. 0511559802-2. Laboratory analytical results associated with these samples are enclosed with this letter.

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13570 St. Charles Rock Road
Bridgeton, MO 63044

Telephone (314) 744-8190
Fax (314) 739-2588

It can be concluded that the sample collection of May 14-15, 2012 reported TTO values that are not representative of Bridgeton Landfill leachate discharge to MSD. TTO at sampling point 008 has not historically exceeded discharge permit limitations in past sampling, nor do current reported levels. Given historic data trends and the prevalent TTO values reported in the most recent sampling, the Bridgeton Landfill respectfully requests that the NOV, issued June 11, 2012, be rescinded by MSD. The Bridgeton Landfill will continue to operate and maintain the leachate collection system at the facility in order to sustain permit-compliant wastewater discharge.

Please contact David Vasbinder, Environmental Manager at 314-744-8166, or myself at 314-744-8190 if you have any questions or comments.

Sincerely,

BRIDGETON LANDFILL, LLC.

Bryan K. Sehie
Environmental Specialist

Attachments: *-Heritage Environmental Services, LLC. Laboratory Analytical Data*

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01080469

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

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11200

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MSD 024000

Submitter Name: MO-ALLIED-BRIDGETON LANDFILL (8945)

Project Name: LEACHATE - BRIDGETON LANDFILL (5586)

Z Quote No: Z157933

PO No: 4337-12001-9 (2012)

Heritage Contact CHRISTOPHER BOYLE (317)390-3128

Sample Turn Around Time — Accelerated TAT subject to Additional Charge.

Standard: X Rush Date ___/___/___ (Mo Day Yr) — Date must be Accepted and Approved by Lab.

Sampled By: Brian Sehie

Analyses Requested (Note special detection limits or methods)

Comments:

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample Type (Matrix): Water, Soil, Oil, Sludge, Swipe, Other	Number of Containers	PCB/PEST, SVL BNA WW	VOL	Remarks:	Lab use only Sample No.
6/21/12	1145 AM PM		X	Bridgeton Leachate Outfall 008	Water	8	4	4		A954235
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	6/21/12 1400	Fed Ex #9848 0970 4630
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Received for Lab by: (Signature) [signature]	Date 6/22/12	Temperature 3.8 (3.4) °C
	Time 0520	Received On Ice Yes / No

Laboratory use only	Yes	No	NA
Custody seals intact on cooler?	-		
C. seals intact on containers?			-
Broken containers?		-	
COC agree with sample labels?	-		
Correct containers for testing?	-		
Headspace issues acceptable?	-		
Holding time(s) acceptable?	-		
Preservative pH's acceptable?	-		
Was pH left unadjusted?	-		

Send Report To:

Co: BRIDGETON LANDFILL
Addr: 13570 ST. CHARLES ROCK RD
BRIDGETON, MO 63044
Attn: BRIAN SEHIE
Phone: (314)739-1919
Fax: (314)739-2588
email: bsehie@repubicservices.com

HERITAGE
ENVIRONMENTAL SERVICES

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	22-JUN-12	A954235
	Completed	**PO Number**
	09-JUL-12	4337-12001-9 (2012)
	Printed	**Sampled**
	11-JUL-12	21-JUN-12 11:45

Report To	Bill To
BRIAN SEHIE BRIDGETON LANDFILL 13570 ST. CHARLES ROCK RD BRIDGETON, MO 63044	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 63251
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: RESAMPLE FOR TTO
PERMIT: 830871

SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

Analyst: A. LEACH | Analysis Date: 27-JUN-12 | Instrument: PREP | Test: P243.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: L. SMITH | Analysis Date: 03-JUL-12 06:12 | Instrument: GC/MS SVOA | Test: O501.3.0

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
2,4,6-TRICHLOROPHENOL	BDL	10	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
4-NITROPHENOL	BDL	10	ug/L
2,4-DINITROPHENOL	BDL	20	ug/L
4,6-DINITRO-O-CRESOL	BDL	10	ug/L
PENTACHLOROPHENOL	BDL	10	ug/L
PHENOL	BDL	10	ug/L
ACENAPHTHENE	15	10	ug/L
BENZIDINE	BDL	20	ug/L

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Sample ID: A954235 OUTFALL 008

1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	10	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	10	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	10	ug/L
3,3'-DICHLOROBENZIDINE	BDL	25	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
FLUORANTHENE	BDL	10	ug/L
4-CHLOROPHENYL-PHENYLETHER	BDL	10	ug/L
4-BROMODIPHENYL ETHER	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
NAPHTHALENE	100	10	ug/L
NITROBENZENE	BDL	10	ug/L
N-NITROSODIMETHYLAMINE	BDL	10	ug/L
N-NITROSO-DIPROPYLAMINE	BDL	10	ug/L
N-NITROSODIPHENYLAMINE	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
(BENZYLBUTYLPHTHALATE) BUTYLBENZYLPHTHALATE	BDL	10	ug/L
DI-N-BUTYLPHTHALATE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
PHENANTHRENE	10	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L

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Sample ID: A954235 OUTFALL 008

INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
PYRENE	BDL	10	ug/L
1,2-DIPHENYLHYDRAZINE	BDL	10	ug/L
2-METHYLPHENOL (O-CRESOL)	BDL	10	ug/L
3-METHYLPHENOL (M-CRESOL)	*	10	ug/L
4-METHYLPHENOL (P-CRESOL)	* 97	10	ug/L
...			
SURROGATE RECOVERY			

2-FLUOROPHENOL	* 0		% Rec
PHENOL-D5	* 0		% Rec
NITROBENZENE-D5	* 0		% Rec
2-FLUOROBIPHENYL	84		% Rec
2,4,6-TRIBROMOPHENOL	82		% Rec
TERPHENYL-D14	99		% Rec

DUE TO LABORATORY INSTRUMENT CONSTRAINTS, BENZIDINE AND 2,4-DINITROPHENOL ARE REPORTED AT DETECTION LIMITS OF 25 AND 20 UG/L INSTEAD OF 10 UG/L

Sample failed lab-generated surrogate recovery criteria. Sample re-prepped

NOTE: 3-Methylphenol and 4-Methylphenol co-elute.

ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

Analyst: B. WOOD | Analysis Date: 27-JUN-12 | Instrument: PREP | Test: P223.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	900		mL
FINAL VOLUME	10		mL

ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 NELAC:Y

Analyst: K. VEST | Analysis Date: 29-JUN-12 18:32 | Instrument: GC/ECD | Test: O305.0.0

Prep: ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608 P223.1.0

Parameter	Result	Det. Limit	Units
ALPHA-BHC	BDL	10	ug/L
BETA-BHC	BDL	10	ug/L
DELTA-BHC	BDL	10	ug/L
GAMMA-BHC (LINDANE)	BDL	10	ug/L
HEPTACHLOR	BDL	10	ug/L
ALDRIN	BDL	10	ug/L
HEPTACHLOR EPOXIDE	BDL	10	ug/L
ENDOSULFAN I	BDL	10	ug/L
DIELDRIN	BDL	10	ug/L
4,4'-DDE	BDL	10	ug/L
ENDRIN	BDL	10	ug/L

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Sample ID: A954235 OUTFALL 008

ENDOSULFAN II	BDL	10	ug/L
4,4'-DDD	BDL	10	ug/L
ENDOSULFAN SULFATE	BDL	10	ug/L
4,4'-DDT	BDL	10	ug/L
METHOXYCHLOR	BDL	10	ug/L
ENDRIN ALDEHYDE	BDL	10	ug/L
ALPHA-CHLORDANE	BDL	10	ug/L
GAMMA-CHLORDANE	BDL	10	ug/L
CHLORDANE	BDL	10	ug/L
TOXAPHENE	BDL	10	ug/L
PCB AROCLOR 1016	BDL	10	ug/L
PCB AROCLOR 1221	BDL	10	ug/L
PCB AROCLOR 1232	BDL	10	ug/L
PCB AROCLOR 1242	BDL	10	ug/L
PCB AROCLOR 1248	BDL	10	ug/L
PCB AROCLOR 1254	BDL	10	ug/L
PCB AROCLOR 1260	BDL	10	ug/L
...			
SURROGATE RECOVERY			

DECACHLOROBIPHENYL (DCB)	100.9		% Rec

Matrix interference may mask low level analytes.

Sample Comments

* See Note for Parameter
BDL Below Detection Limit

Sample was received on ice at temperature 3.8 C.
Sample chain of custody number 11200.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

Approved by: CHRISTINE SARKAN 11-JUL-12

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MSD 024004

01080638

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www.heritage-enviro.com (800)827-4374 Fax:(317)486-5095

11319

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DIVISION OF ENVIRONMENTAL COMPLIANCE

MSD 024005

Submitter Name: MO-ALLIED-BRIDGETON LANDFILL (8945)

Project Name: LEACHATE - BRIDGETON LANDFILL (5586)

Z Quote No: Z157933

PO No: 4337-12001-9 (2012)

Heritage Contact CHRISTOPHER BOYLE (317)390-3128

Sample Turn Around Time — Accelerated TAT subject to Additional Charge.

Standard: X Rush Date ___/___/___ (Mo Day Yr) — Date must be Accepted and Approved by Lab.

Sampled By: Bryan Sehie - Republic Services

Analyses Requested (Note special detection limits or methods)

Comments: VOC's being resampled to to breakage of VOC bottles from 6/21/12 Sample Collection

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample Type (Matrix): Water, Soil, Oil, Sludge, Swipe, Other	Number of Containers	PCB/PEST, SVL BNA MW	VOL	Remarks:	Lab use only Sample No.
6/27/12	1505 AM PM		X	Bridgeton Leachate Outfall 008	W	4		4	VOC's Only	A954666
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									

Ref: Z157933 1KIT/COO Date: 15Jun12
Dep: Wgt: 20.00 LBS
DV: 0.00

SHIPPING:	0.00
SPECIAL:	0.00
HANDLING:	0.00
TOTAL:	0.00

Svc: STANDARD OVERNIGHT Master 9648 0970 4777 TRCK: 9648 0970 4788

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Brian Sehie	6/27/12 1600	Fed Ex
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Received for Lab by: (Signature)

Date: 6/28/12 Time: 0855

Temperature: 3.4 (3.0) °C

Received On Ice: Yes / No

Laboratory use only	Yes	No	NA
Custody seals intact on cooler?		—	
C. seals intact on containers?			—
Broken containers?		—	
COC agree with sample labels?	—		
Correct containers for testing?	—		
Headspace issues acceptable?	—		
Holding time(s) acceptable?	—		
Preservative pH's acceptable?	—		
Was pH left unadjusted?	—		

Send Report To:

Co: BRIDGETON LANDFILL
Addr: 13570 ST. CHARLES ROCK RD
BRIDGETON, MO 63044
Attn: BRIAN SEHIE
Phone: (314)739-1919
Fax: (314)739-2588
email: bsehie@repubicservices.com

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	28-JUN-12	A954666
	Completed	**PO Number**
	09-JUL-12	4337-12001-9 (2012)
	Printed	**Sampled**
	11-JUL-12	27-JUN-12 15:05

Report To	Bill To
BRIAN SEHIE BRIDGETON LANDFILL 13570 ST. CHARLES ROCK RD BRIDGETON, MO 63044	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 63251
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: RESAMPLE FOR TTO
PERMIT: 830871

VOLATILE PRIORITY POLLUTANTS EPA 624 NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 02-JUL-12 16:17 Instrument: GC/MS VOA Test: O502.3.0

Parameter	Result	Det. Limit	Units
ACROLEIN	BDL	100	ug/L
ACRYLONITRILE	BDL	100	ug/L
BENZENE	320	10	ug/L
BROMOFORM	BDL	10	ug/L
CARBON TETRACHLORIDE	BDL	10	ug/L
CHLOROBENZENE	55	10	ug/L
CHLOROETHANE	BDL	10	ug/L
2-CHLOROETHYLVINYLETHER	BDL	10	ug/L
CHLOROFORM	BDL	10	ug/L
DIBROMOCHLOROMETHANE	BDL	10	ug/L
BROMODICHLOROMETHANE	BDL	10	ug/L
1,1-DICHLOROETHANE	BDL	10	ug/L
1,2-DICHLOROETHANE	BDL	10	ug/L
1,1-DICHLOROETHENE	BDL	10	ug/L
1,2-DICHLOROPROPANE	BDL	10	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	10	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	10	ug/L
ETHYL BENZENE	100	10	ug/L
BROMOMETHANE	BDL	10	ug/L
CHLOROMETHANE	BDL	10	ug/L

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ENVIRONMENTAL SERVICES

Sample ID: A954666 OUTFALL 008

DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	10	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	10	ug/L
TETRACHLOROETHENE	BDL	10	ug/L
TOLUENE	88	10	ug/L
1,2-DICHLOROETHENE (CIS AND TRANS)	BDL	10	ug/L
1,1,1-TRICHLOROETHANE	BDL	10	ug/L
1,1,2-TRICHLOROETHANE	BDL	10	ug/L
TRICHLOROETHENE	BDL	10	ug/L
TRICHLOROFLUOROMETHANE	BDL	10	ug/L
VINYL CHLORIDE	BDL	10	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	101		% Rec
TOLUENE-D8	99		% Rec
4-BROMOFLUOROBENZENE	100		% Rec

PH6

Acrolein & Acrylonitrile reported only for screening purposes. Results should be considered estimated.

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

Unable to analyze at lower dilution due to sample matrix. Sample foamed.

1:10 Dilution.

Sample Comments

RESAMPLED VOLATILE DUE TO FREEZE LOSS ON ORIGINAL SAMPLING.
A954235 06212012.

BDL Below Detection Limit

Sample was received on ice at temperature 3.4 C.
Sample chain of custody number 11319.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

Approved by: CHRISTINE SARKAN 11-JUL-12

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01080544

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HERITAGE ENVIRONMENTAL SERVICES, LLC.
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www.heritage-enviro.com (800)827-4374 Fax:(317)486-5095

11320

RECEIVED
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DIVISION OF
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MSD 024008

Submitter Name: MO-ALLIED-BRIDGETON LANDFILL (8945)

Project Name: LEACHATE - BRIDGETON LANDFILL (5586)

Z Quote No: Z157933

PO No: 4337-12001-9 (2012)

Heritage Contact CHRISTOPHER BOYLE (317)390-3128

Sample Turn Around Time

Standard: X Rush Date ___/___/___ Mo Day Yr

Accelerated TAT subject to Additional Charge.

Date must be Accepted and Approved by Lab.

Sampled By: Bryan Sehie - Republic Services

Analyses Requested (Note special detection limits or methods)

Comments:

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample Type (Matrix): Water, Soil, Oil, Sludge, Swipe, Other	Number of Containers	PCB/PEST, SVL BNA WW	VOL	Remarks:	Lab use only Sample No.
6/25/12	1205 AM PM		X	Bridgeton Leachate Outfall 008	W	8	4	4	HSD 1/4" 1/4	A454472
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	6/25/12 1300	Fed Ex
Relinquished by: (Signature)	Date/Time	Received by: (Signature) Ref: Z157933 1KIT/CC Dep:
Relinquished by: (Signature)	Date/Time	Rec
Received for Lab by: (Signature) [signature]		Svcs: STANDARD OVERNIGHT Date 6/26/12 Time 0830 Tem, 1.4 TRCK: (1.0)°C Received On Ice Yes / No

Laboratory use only	Yes	No	NA
Custody seals intact on cooler?	✓		
C. seals intact on containers?			✓
Broken			✓
COC agree with sa[illegible]	✓		
Correct [illegible]ntainers [illegible]ng?	✓		
[illegible]ds, [illegible]ues [illegible]?	✓		
[illegible]lding time(s) acceptable?	✓		
Preservative pH's acceptable?	✓		
Was pH left unadjusted?	✓		

Send Report To:

Co: BRIDGETON LANDFILL
Addr: 13570 ST. CHARLES ROCK RD
BRIDGETON, MO 63044
Attn: BRIAN SEHIE
Phone: (314)739-1919
Fax: (314)739-2588
email: bsehie@repubicservices.com

HERITAGE
ENVIRONMENTAL SERVICES

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	26-JUN-12	A954472
	Completed	**PO Number**
	09-JUL-12	4337-12001-9 (2012)
	Printed	**Sampled**
	11-JUL-12	25-JUN-12 12:05

Report To	Bill To
BRIAN SEHIE BRIDGETON LANDFILL 13570 ST. CHARLES ROCK RD BRIDGETON, MO 63044	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 63261
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: RESAMPLE FOR TTO
PERMIT: 830871

SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

Analyst: A. LEACH | Analysis Date: 27-JUN-12 | Instrument: PREP | Test: P243.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: L. SMITH | Analysis Date: 04-JUL-12 04:39 | Instrument: GC/MS SVOA | Test: O501.3.0

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
2,4,6-TRICHLOROPHENOL	BDL	100	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	100	ug/L
2-CHLOROPHENOL	BDL	100	ug/L
2,4-DICHLOROPHENOL	BDL	100	ug/L
2,4-DIMETHYLPHENOL	BDL	100	ug/L
2-NITROPHENOL	BDL	100	ug/L
4-NITROPHENOL	BDL	100	ug/L
2,4-DINITROPHENOL	BDL	200	ug/L
4,6-DINITRO-O-CRESOL	BDL	100	ug/L
PENTACHLOROPHENOL	BDL	100	ug/L
PHENOL	BDL	100	ug/L
ACENAPHTHENE	BDL	100	ug/L
BENZIDINE	BDL	200	ug/L

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Sample ID: A954472 OUTFALL 008

1,2,4-TRICHLOROBENZENE	BDL	100	ug/L
HEXACHLOROBENZENE	BDL	100	ug/L
HEXACHLOROETHANE	BDL	100	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	100	ug/L
2-CHLORONAPHTHALENE	BDL	100	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	100	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	100	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	120	100	ug/L
3,3'-DICHLOROBENZIDINE	BDL	250	ug/L
2,4-DINITROTOLUENE	BDL	100	ug/L
2,6-DINITROTOLUENE	BDL	100	ug/L
FLUORANTHENE	BDL	100	ug/L
4-CHLOROPHENYL-PHENYLETHER	BDL	100	ug/L
4-BROMODIPHENYL ETHER	BDL	100	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	100	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	100	ug/L
HEXACHLOROBUTADIENE	BDL	100	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	100	ug/L
ISOPHORONE	BDL	100	ug/L
NAPHTHALENE	130	100	ug/L
NITROBENZENE	BDL	100	ug/L
N-NITROSODIMETHYLAMINE	BDL	100	ug/L
N-NITROSO-DIPROPYLAMINE	BDL	100	ug/L
N-NITROSODIPHENYLAMINE	BDL	100	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	100	ug/L
(BENZYLBUTYLPHTHALATE) BUTYLBENZYLPHTHALATE	BDL	100	ug/L
DI-N-BUTYLPHTHALATE	BDL	100	ug/L
DI-N-OCTYLPHTHALATE	BDL	100	ug/L
DIETHYLPHTHALATE	BDL	100	ug/L
DIMETHYLPHTHALATE	BDL	100	ug/L
BENZ(A)ANTHRACENE	BDL	100	ug/L
BENZO(A)PYRENE	BDL	100	ug/L
BENZO(B)FLUORANTHENE	BDL	100	ug/L
BENZO(K)FLUORANTHENE	BDL	100	ug/L
CHRYSENE	BDL	100	ug/L
ACENAPHTHYLENE	BDL	100	ug/L
ANTHRACENE	BDL	100	ug/L
BENZO(G,H,I)PERYLENE	BDL	100	ug/L
FLUORENE	BDL	100	ug/L
PHENANTHRENE	BDL	100	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	100	ug/L

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Sample ID: A954472 OUTFALL 008

INDENO(1,2,3-CD)PYRENE	BDL	100	ug/L
PYRENE	BDL	100	ug/L
1,2-DIPHENYLHYDRAZINE	BDL	100	ug/L
2-METHYLPHENOL (O-CRESOL)	240	100	ug/L
3-METHYLPHENOL (M-CRESOL)	BDL	100	ug/L
4-METHYLPHENOL (P-CRESOL)	BDL	100	ug/L
...			
SURROGATE RECOVERY			

2-FLUOROPHENOL	D		% Rec
PHENOL-D5	D		% Rec
NITROBENZENE-D5	D		% Rec
2-FLUOROBIPHENYL	D		% Rec
2,4,6-TRIBROMOPHENOL	D		% Rec
TERPHENYL-D14	D		% Rec

3,3-Dichlorobenzidine at 25 ug/l.

DUE TO LABORATORY INSTRUMENT CONSTRAINTS, BENZIDINE AND 2,4-DINITROPHENOL ARE REPORTED AT DETECTION LIMITS OF 20 UG/L INSTEAD OF 10 UG/L and

1:10 Dilution

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

Sample failed method internal standard area criteria. Sample reanalyzed with no improvement.

VOLATILE PRIORITY POLLUTANTS EPA 624 NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 27-JUN-12 04:43 Instrument: GC/MS VOA Test: O502.3.0

Parameter	Result	Det. Limit	Units
ACROLEIN	BDL	500	ug/L
ACRYLONITRILE	BDL	700	ug/L
BENZENE	210	10	ug/L
BROMOFORM	BDL	10	ug/L
CARBON TETRACHLORIDE	BDL	10	ug/L
CHLOROBENZENE	42	10	ug/L
CHLOROETHANE	BDL	10	ug/L
2-CHLOROETHYLVINYLETHER	BDL	10	ug/L
CHLOROFORM	BDL	10	ug/L
DIBROMOCHLOROMETHANE	BDL	10	ug/L
BROMODICHLOROMETHANE	BDL	10	ug/L
1,1-DICHLOROETHANE	BDL	10	ug/L
1,2-DICHLOROETHANE	BDL	10	ug/L

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Sample ID: A954472 OUTFALL 008

1,1-DICHLOROETHENE	BDL	10	ug/L
1,2-DICHLOROPROPANE	BDL	10	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	10	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	10	ug/L
ETHYL BENZENE	64	10	ug/L
BROMOMETHANE	BDL	10	ug/L
CHLOROMETHANE	BDL	10	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	10	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	10	ug/L
TETRACHLOROETHENE	BDL	10	ug/L
TOLUENE	50	10	ug/L
1,2-DICHLOROETHENE (CIS AND TRANS)	BDL	10	ug/L
1,1,1-TRICHLOROETHANE	BDL	10	ug/L
1,1,2-TRICHLOROETHANE	BDL	10	ug/L
TRICHLOROETHENE	BDL	10	ug/L
TRICHLOROFLUOROMETHANE	BDL	10	ug/L
VINYL CHLORIDE	BDL	10	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	112		% Rec
TOLUENE-D8	98		% Rec
4-BROMOFLUOROBENZENE	99		% Rec

PH6

1:10 Dilution.

Acrolein & Acrylonitrile reported only for screening purposes. Results should be considered estimated.

Unable to analyze at lower dilution due to sample matrix. Sample foamed.

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

Analyst: B. WOOD | Analysis Date: 27-JUN-12 | Instrument: PREP | Test: P223.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	950		mL
FINAL VOLUME	10		mL

ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 NELAC:Y

Analyst: K. VEST | Analysis Date: 29-JUN-12 18:46 | Instrument: GC/ECD | Test: P305.0.0

Prep: ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608 P223.1.0

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Sample ID: A954472 OUTFALL 008

Parameter	Result	Det. Limit	Units
ALPHA-BHC	BDL	10	ug/L
BETA-BHC	BDL	10	ug/L
DELTA-BHC	BDL	10	ug/L
GAMMA-BHC (LINDANE)	BDL	10	ug/L
HEPTACHLOR	BDL	10	ug/L
ALDRIN	BDL	10	ug/L
HEPTACHLOR EPOXIDE	BDL	10	ug/L
ENDOSULFAN I	BDL	10	ug/L
DIELDRIN	BDL	10	ug/L
4,4'-DDE	BDL	10	ug/L
ENDRIN	BDL	10	ug/L
ENDOSULFAN II	BDL	10	ug/L
4,4'-DDD	BDL	10	ug/L
ENDOSULFAN SULFATE	BDL	10	ug/L
4,4'-DDT	BDL	10	ug/L
METHOXYCHLOR	BDL	10	ug/L
ENDRIN ALDEHYDE	BDL	10	ug/L
ALPHA-CHLORDANE	BDL	10	ug/L
GAMMA-CHLORDANE	BDL	10	ug/L
CHLORDANE	BDL	10	ug/L
TOXAPHENE	BDL	10	ug/L
PCB AROCLOR 1016	BDL	10	ug/L
PCB AROCLOR 1221	BDL	10	ug/L
PCB AROCLOR 1232	BDL	10	ug/L
PCB AROCLOR 1242	BDL	10	ug/L
PCB AROCLOR 1248	BDL	10	ug/L
PCB AROCLOR 1254	BDL	10	ug/L
PCB AROCLOR 1260	BDL	10	ug/L
...			
SURROGATE RECOVERY			

DECACHLOROBIPHENYL (DCB)	90.2		% Rec

Matrix interference may mask low level analytes.

Sample Comments

BDL Below Detection Limit
D Recovery not available. Diluted Out.

Sample was received on ice at temperature 1.4 C.
Sample chain of custody number 11320.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or

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HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

7901 W Morris St Indianapolis, IN 46231
www.heritage-enviro.com (800)827-4374 Fax:(317)486-5095

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MSD 024014

Submitter Name: MO-ALLIED-BRIDGETON LANDFILL (8945)

Project Name: LEACHATE - BRIDGETON LANDFILL (5586)

Z Quote No: Z157933

PO No: 4337-12001-9 (2012)

Heritage Contact CHRISTOPHER BOYLE (317)390-3128

Sample Turn Around Time — Accelerated TAT subject to Additional Charge.

Standard: X Rush Date ___/___/___ (Mo Day Yr) — Date must be Accepted and Approved by Lab.

Sampled By: Bryan Sehie - Republic Services

Analyses Requested (Note special detection limits or methods)

Comments:

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample Type (Matrix): Water, Soil, Oil, Sludge, Swipe, Other	Number of Containers	PCB/PEST, SVL BNA WW	VOC	Remarks:	Lab use only Sample No.
6/26/12	1600 AM PM		X	Bridgeton Leachate Outfall 008	W	8	4	4		A954630
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									
	AM PM									

Relinquished by: (Signature) Date/Time 6/26/12 1700

Relinquished by: (Signature) Date/Time

Relinquished by: (Signature) Date/Time

Received by Lab by: (Signature)

Received by: (Signature)

Received by: (Signature)

Ref: Z157933 KIT/COO Date: 15
Dep: Wgt: 20.
DV:
Svc: STANDARD OVERNIGHT Master 9848
TRCK: 9848 0

Date 6/27/12 Temp 30 (2.6) °C

Time 0855 Received On Ice Yes / No

Laboratory use only	Yes	No	NA
Custody seals intact on cooler?	✓		
C. seals intact on containers?			✓
[illegible] containers?		✓	
[illegible]	✓		
[illegible]	✓		
Holding time(s) acceptable?	✓		
Preservative pH's acceptable?	✓		
Was pH left unadjusted?	✓		

Send Report To:

Co: BRIDGETON LANDFILL
Addr: 13570 ST. CHARLES ROCK RD
BRIDGETON, MO 63044
Attn: BRIAN SEHIE
Phone: (314)739-1919
Fax: (314)739-2588
email: bsehie@repubicservices.com

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	27-JUN-12	A954630
	Completed	**PO Number**
	11-JUL-12	4337-12001-9 (2012)
	Printed	**Sampled**
	13-JUL-12	26-JUN-12 16:00

Report To	Bill To
BRIAN SEHIE BRIDGETON LANDFILL 13570 ST. CHARLES ROCK RD BRIDGETON, MO 63044	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 63269
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: RESAMPLE FOR TTO
PERMIT: 830871

SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

Analyst: N. NUBANI | Analysis Date: 02-JUL-12 09:15 | Instrument: PREP | Test: P243.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: J. MINNIEAR, II | Analysis Date: 10-JUL-12 08:33 | Instrument: GC/MS SVOA | Test: O501.3.0

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
2,4,6-TRICHLOROPHENOL	BDL	100	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	100	ug/L
2-CHLOROPHENOL	BDL	100	ug/L
2,4-DICHLOROPHENOL	BDL	100	ug/L
2,4-DIMETHYLPHENOL	BDL	100	ug/L
2-NITROPHENOL	BDL	100	ug/L
4-NITROPHENOL	BDL	100	ug/L
2,4-DINITROPHENOL	BDL	200	ug/L
4,6-DINITRO-O-CRESOL	BDL	100	ug/L
PENTACHLOROPHENOL	BDL	500	ug/L
PHENOL	1100	100	ug/L
ACENAPHTHENE	BDL	100	ug/L
BENZIDINE	BDL	200	ug/L

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Sample ID: A954630 OUTFALL 008

1,2,4-TRICHLOROBENZENE	BDL	100	ug/L
HEXACHLOROBENZENE	BDL	100	ug/L
HEXACHLOROETHANE	BDL	100	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	100	ug/L
2-CHLORONAPHTHALENE	BDL	100	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	100	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	100	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	100	ug/L
3,3'-DICHLOROBENZIDINE	BDL	100	ug/L
2,4-DINITROTOLUENE	BDL	100	ug/L
2,6-DINITROTOLUENE	BDL	100	ug/L
FLUORANTHENE	BDL	100	ug/L
4-CHLOROPHENYL-PHENYLETHER	BDL	100	ug/L
4-BROMODIPHENYL ETHER	BDL	100	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	100	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	100	ug/L
HEXACHLOROBUTADIENE	BDL	100	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	100	ug/L
ISOPHORONE	BDL	100	ug/L
NAPHTHALENE	110	100	ug/L
NITROBENZENE	BDL	100	ug/L
N-NITROSODIMETHYLAMINE	BDL	100	ug/L
N-NITROSO-DIPROPYLAMINE	BDL	100	ug/L
N-NITROSODIPHENYLAMINE	BDL	100	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	100	ug/L
(BENZYLBUTYLPHTHALATE) BUTYLBENZYLPHTHALATE	BDL	100	ug/L
DI-N-BUTYLPHTHALATE	BDL	100	ug/L
DI-N-OCTYLPHTHALATE	BDL	100	ug/L
DIETHYLPHTHALATE	BDL	100	ug/L
DIMETHYLPHTHALATE	BDL	100	ug/L
BENZ(A)ANTHRACENE	BDL	100	ug/L
BENZO(A)PYRENE	BDL	100	ug/L
BENZO(B)FLUORANTHENE	BDL	100	ug/L
BENZO(K)FLUORANTHENE	BDL	100	ug/L
CHRYSENE	BDL	100	ug/L
ACENAPHTHYLENE	BDL	100	ug/L
ANTHRACENE	BDL	100	ug/L
BENZO(G,H,I)PERYLENE	BDL	100	ug/L
FLUORENE	BDL	100	ug/L
PHENANTHRENE	BDL	100	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	100	ug/L

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Sample ID: A954630 OUTFALL 008

INDENO(1,2,3-CD)PYRENE	BDL	100	ug/L
PYRENE	BDL	100	ug/L
1,2-DIPHENYLHYDRAZINE	BDL	100	ug/L
2-METHYLPHENOL (O-CRESOL)	BDL	100	ug/L
3-METHYLPHENOL (M-CRESOL)	*	100	ug/L
4-METHYLPHENOL (P-CRESOL)	* 970	100	ug/L

SURROGATE RECOVERY			

2-FLUOROPHENOL	104		% Rec
PHENOL-D5	30		% Rec
NITROBENZENE-D5	72		% Rec
2-FLUOROBIPHENYL	51		% Rec
2,4,6-TRIBROMOPHENOL	74		% Rec
TERPHENYL-D14	31		% Rec

DUE TO LABORATORY INSTRUMENT CONSTRAINTS, BENZIDINE AND 2,4-DINITROPHENOL ARE REPORTED AT DETECTION LIMITS OF 200UG/L INSTEAD OF 100UG/L 3,3 Dichlorobenzidine at 250 ug/l.

1:10 Dilution

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

NOTE: * 3-Methylphenol and 4-Methylphenol co-elute.

VOLATILE PRIORITY POLLUTANTS EPA 624 NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 02-JUL-12 13:44 Instrument: GC/MS VOA Test: O502.3.0

Parameter	Result	Det. Limit	Units
ACROLEIN	BDL	100	ug/L
ACRYLONITRILE	BDL	100	ug/L
BENZENE	160	10	ug/L
BROMOFORM	BDL	10	ug/L
CARBON TETRACHLORIDE	BDL	10	ug/L
CHLOROBENZENE	24	10	ug/L
CHLOROETHANE	BDL	10	ug/L
2-CHLOROETHYLVINYLETHER	BDL	10	ug/L
CHLOROFORM	BDL	10	ug/L
DIBROMOCHLOROMETHANE	BDL	10	ug/L
BROMODICHLOROMETHANE	BDL	10	ug/L
1,1-DICHLOROETHANE	BDL	10	ug/L
1,2-DICHLOROETHANE	BDL	10	ug/L
1,1-DICHLOROETHENE	BDL	10	ug/L

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Sample ID: A954630 OUTFALL 008

1,2-DICHLOROPROPANE	BDL	10	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	10	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	10	ug/L
ETHYL BENZENE	30	10	ug/L
BROMOMETHANE	BDL	10	ug/L
CHLOROMETHANE	BDL	10	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	10	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	10	ug/L
TETRACHLOROETHENE	BDL	10	ug/L
TOLUENE	35	10	ug/L
1,2-DICHLOROETHENE (CIS AND TRANS)	BDL	10	ug/L
1,1,1-TRICHLOROETHANE	BDL	10	ug/L
1,1,2-TRICHLOROETHANE	BDL	10	ug/L
TRICHLOROETHENE	BDL	10	ug/L
TRICHLOROFLUOROMETHANE	BDL	10	ug/L
VINYL CHLORIDE	BDL	10	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	102		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	102		% Rec

PH6

Acrolein & Acrylonitrile reported only for screening purposes. Results should be considered estimated.

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

1:10 Dilution.

Unable to analyze at lower dilution due to sample matrix. Sample foamed.

ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

Analyst: B. WOOD | Analysis Date: 27-JUN-12 | Instrument: PREP | Test: P223.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	900		mL
FINAL VOLUME	10		mL

ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 NELAC:Y

Analyst: K. VEST | Analysis Date: 29-JUN-12 19:14 | Instrument: GC/ECD | Test: O305.0.0

Prep: ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608 P223.1.0

Parameter	Result	Det. Limit	Units

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MSD 024018

HERITAGE
ENVIRONMENTAL SERVICES

Sample ID: A954630 OUTFALL 008

ALPHA-BHC	BDL	10	ug/L
BETA-BHC	BDL	10	ug/L
DELTA-BHC	BDL	10	ug/L
GAMMA-BHC (LINDANE)	BDL	10	ug/L
HEPTACHLOR	BDL	10	ug/L
ALDRIN	BDL	10	ug/L
HEPTACHLOR EPOXIDE	BDL	10	ug/L
ENDOSULFAN I	BDL	10	ug/L
DIELDRIN	BDL	10	ug/L
4,4'-DDE	BDL	10	ug/L
ENDRIN	BDL	10	ug/L
ENDOSULFAN II	BDL	10	ug/L
4,4'-DDD	BDL	10	ug/L
ENDOSULFAN SULFATE	BDL	10	ug/L
4,4'-DDT	BDL	10	ug/L
METHOXYCHLOR	BDL	10	ug/L
ENDRIN ALDEHYDE	BDL	10	ug/L
ALPHA-CHLORDANE	BDL	10	ug/L
GAMMA-CHLORDANE	BDL	10	ug/L
CHLORDANE	BDL	10	ug/L
TOXAPHENE	BDL	10	ug/L
PCB AROCLOR 1016	BDL	10	ug/L
PCB AROCLOR 1221	BDL	10	ug/L
PCB AROCLOR 1232	BDL	10	ug/L
PCB AROCLOR 1242	BDL	10	ug/L
PCB AROCLOR 1248	BDL	10	ug/L
PCB AROCLOR 1254	BDL	10	ug/L
PCB AROCLOR 1260	BDL	10	ug/L
...			
SURROGATE RECOVERY			

DECACHLOROBIPHENYL (DCB)	122.6		% Rec

Matrix interference may mask low level analytes.

Sample Comments

* See Note for Parameter
BDL Below Detection Limit

Sample was received on ice at temperature 3 C.
Sample chain of custody number 11319.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or

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DIVISION OF
ENVIRONMENTAL COMPLIANCE

Bridgeton Landfill LLC
1003803000

MSD – Pump Station Division

Subject: **Westlakes PS – Site Conditions Meeting Minutes**

Date: **July 25, 2012**

Attendees:

Doug Mendoza- DEC	Mark Bright-PS Div	Jay Kniker- PS Div
Ryan Sabourin- Risk Mgmt	Rob Daly-PS Div	Tom Boehm-DEC

1. Discussion items-Previous Meeting

1.1 Status of CM work

Mark Bright coordinated with Landfill personnel to conduct temporary shutdown of facility to accommodate staff performing CM on control panel. Work now complete. This is a short term action that will buy PS Div staff some time to let this situation resolve itself before additional maintenance is required.

1.2. NOV issued 6/20/12 by DEC.

PS Division copied on letter. Landfill responded with Corrective Action plan in required 30 day response period. Response dated 7/5/12.

1.3. Operations/PS Division CM/PM/EM SOP.

PS Division has established an SOP identifying procedures to safely access station in interim period while issues with Landfill being resolved. Emphasizes avoidance where possible, prior coordination with landfill to perform temporary shut down while PS Div personnel access site for CD maintenance or EM work, on site monitoring, and ventilation. Staff still require official training on SOP.

Action party: Mark Bright

Submittal date: no later than August 14, 2012.

1.4 PPE.

Ran Sabourin notes that PPE exists that can mitigate risk and impact to PS Div personnel. Per Rob Daly- this is not an acceptable solution and we cannot expect staff to routinely access station utilizing this PPE. Timely resolution of issues at landfill are required- before CD inspections are impacted.

2. Site investigation- Bridgeton Landfill response report review

2.1. Vacuum extraction system that extracts volatiles from leachate was tweaked so that it pulls more volatiles from leachate. Purportedly an improvement to previous conditions. PS Div requests more info on other systems modifications referenced in landfill response letter of 7/5/12. Per Tom Boehm- an 'oxidation event' is creating the additional volatiles that are impacting the environment at the station. Monitoring indicates readings 2x over MCL of 2 of 4 gases that monitors can sense.

Action party: Tom Boehm

Submittal date: August 2, 2012. **Completed**. See below response- clarifying landfill actions.

From: Tom Boehm
Sent: Thursday, August 02, 2012 3:23 PM
To: Rob G Daly; Mark Bright
Cc: Jay Kniker; Ryan Sabourin; Doug Mendoza; John Lodderhose; Christopher J. Bulmahn
Subject: RE: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)

Update:

At our meeting last week, I was charged with getting clarification on a few items from the landfill.

The new vacuum system and activated charcoal system are up and running as designed. The 'vacuum system' is made up of 3 parts. 1) the original vacuum system feeding the original flare, 2) the secondary vacuum system that is directed to the same flare, and 3) the activated carbon system is a 3rd separate vacuum system. As of our meeting, they were still working to get #2 above (the secondary vacuum system), working as designed. Since that time, they have the system running up to their specs.

The carbon system is designed as a redundant system. If the vacuum flare system fails, in-line sensors activate a phone messaging system to notify facility personnel immediately. At that point, they can manually shut down the flare system and activate the carbon system. Weekly inspections will be done to ensure the system is in working order.

They believe they can shut down the leachate discharge for maximum of 9-10 hours, given a couple of days lead time.

3. Follow on activities

3.1 PS Division on site monitoring-periodic

PS Division will continue to perform 2/week periodic monitoring of site to attempt to monitor trend of odor reduction and/or status. Mark Bright will log data on Ops folder shared drive. Log only at wet well and valve pit area.

Action party: Mark Bright

Submittal date: start date no later than July 30, 2012

3.2 30 day follow up meeting to review results.

Action party: Rob Daly

Submittal date: Schedule meeting no later than Aug 3, 2012.Meeting to review alternate sites to be held no later than end of August. **Completed**. Scheduled September 5, 2012.

If there are any revisions or requests for clarification please do not hesitate to contact me at ext 6706 or rdaly@stlmsd.com.

Metropolitan St. Louis Sewer District

Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

July 16, 2012

David Vasbinder
BRIDGETON LANDFILL LLC
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

Re: Change in compliance charge rate
For premise at: **13570 St. Charles Rock Rd.**
Bridgeton, MO 63044

Dear David Vasbinder:

As you probably are aware, citizens in the Metropolitan St. Louis Sewer District's boundaries voted on June 5, 2012 to revise the rate structure for MSD customers. This revised rate structure affects more than the charge for volume. It also changes the compliance charge that is assessed for commercial accounts. This charge is a separate line item on your monthly bill.

Previously, the compliance charge was a flat rate for all non-residential accounts. It is now a tiered rate, more accurately reflecting the actual costs involved for federal regulatory requirements to inspect and sample companies. In addition to changing to a more equitable tiered rate, MSD has also re-evaluated the costs involved and program requirements, and has been able to make changes to greatly reduce the overall impact of the compliance charge.

For the vast majority of non-residential accounts, the compliance charge will decrease. However, certain companies that federal regulations require to be inspected or have their wastewater sampled will see their compliance charge increase, due to the costs involved in conducting the inspections and sampling. Your facility is one of the companies that these federal regulations encompass.

Barring any recent changes at your facility, the new compliance charge for your MSD sewer account will be **$124.25** per month. Please note also that the tier, and associated compliance charge, can change as conditions change at your facility.

Please note that MSD recognizes that many companies receive more than one MSD bill, because they have more than one incoming water account. The above compliance charge will apply to only one MSD account for each premise, with any other accounts receiving the minimum compliance charge of $23.00 per month. In addition, the minimum compliance charge for those additional accounts will further reduce to $2.15 per month by July 1, 2015.

An insert explaining the compliance charge in more detail will be included with the August bill for all non-residential accounts. This will help insure that the person or department actually paying the bill will also be aware of the changes.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Douglas M. Mendoza, P.E.
Manager of Industrial Pretreatment

- response to NOV for TTO for sample taken 5/15/12 for 2nd 1/4 SMR TCB

✓DL OB TCB DL

Mr. Chris Bulmahn
Associate Engineer
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

10038030-00

July 5, 2012

Dear Mr. Bulmahn:

Response to Notice of Violation,
Bridgeton Landfill, Bridgeton, MO, MSD Permit #: 0511559802-2

The Bridgeton Landfill, LLC. is submitting this letter of response to the Notice of Violation (NOV) for the exceedance of permitted discharge limitations that was issued to the Bridgeton Landfill on June 11, 2012 by the Metropolitan St. Louis Sewer District (MSD). The NOV states that the Bridgeton Landfill is in violation of the permitted wastewater discharge limitation for Total Toxic Organics (TTO). MSD Wastewater Discharge Permit No. 0511559802-2 specifies that the wastewater discharged from the Bridgeton Landfill to MSD may contain a combined TTO concentration of no more than 5.844 mg/L. The following table contains results reported from the quarterly leachate sample collection conducted on May 15, 2012 in comparison to permitted limitations according to the NOV:

Outfall	Parameter	Result	Permitted Instant Limitation
Outfall 007	TTO[1]	11.96 mg/L	5.844 mg/L

[1]TTO=Total Toxic Organics per 40 CFR 401.15

At the time of sample collection the Bridgeton Landfill was experiencing malfunctions in three leachate collection sump systems on-site which may have increased TTO effluent concentrations at Outfall 008 due to a reduction in leachate flow to the outfall. The flow reduction may have resulted in higher than typical constituent concentrations due to a reduction in the dilution of leachate with groundwater. Since the sample collection event listed in this NOV the three leachate collection sumps have been repaired and are pumping a greater leachate volume, diluted with an inward flow of groundwater, to the liquid collection tank.

The Bridgeton Landfill utilizes an 89,000-gallon capacity Aquastore liquid collection tank to contain, recirculate, atomize, and subsequently extract toxic gases from the leachate produced within the facility prior to discharging. On June 22, 2012 repair work was performed to the extraction system that removes these constituents and directs them to the on-site flare for destruction. The repair work included eliminating airflow restriction in the system by raising sags that had recently developed in the extraction-vent piping network; and abating liquid accumulation by replacing the system's pneumatic condensation-removal pump.

During the week of July 9, 2012 the Bridgeton Landfill will be installing a supplemental candlestick flare to work in tandem with the existing gas collection and control system at the site. This additional flare capacity will provide an increase in vacuum pressure to the liquid tank which will ensure greater leachate gas-extraction efficiency prior to discharge.

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13570 St. Charles Rock Road
Bridgeton, MO 63044

Telephone (314) 744-3196
Fax (314) 739-2588

In order to further increase effectiveness in maintaining permitted wastewater effluent concentration levels, the Bridgeton Landfill is in the process of implementing a carbon vessel filtration system. Once operational, the system will provide additional separation of the toxic constituents from the leachate produced at the landfill by filtering gases, otherwise not extracted by the existing system, through a granular activated carbon vessel. The vessel will be monitored by Bridgeton Landfill personnel and granular activated carbon will be replaced as necessary. The carbon filtration system is scheduled to be completed during the week of July 9, 2012.

Get SOP w/ monitoring frequency & criteria for replacement. -DMM

A series of three resamples were conducted since the issuance of the NOV to prove the facility's return to compliance of the permitted discharge limitations. Samples were collected on the dates of June 21, June 25, and June 26, 2012 and shipped to Heritage Environmental Services for analysis of TTO as listed in 40 CFR 401.15. All analytical results will be submitted to MSD once they become available. The Bridgeton Landfill will continue to inspect and maintain all leachate collection and treatment systems in effort to reduce, eliminate, and prevent any permitted discharge exceedances.

If a representative from the MSD – Division of Environmental Compliance would like to observe the leachate collection and treatment systems at the Bridgeton Landfill site personnel would be available to help coordinate such a visit.

Please contact David Vasbinder, Environmental Manager at 314-744-8166, or myself at 314-744-8190 if you have any questions or comments.

see page 5 of SOP dated July 2012

Sincerely,

BRIDGETON LANDFILL, LLC.

Bryan K. Sehie
Environmental Specialist

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ENVIRONMENTAL COMPLIANCE

Bridgeton Landfill Leachate Tank System

Standard Operating Procedure

Bridgeton, Missouri

July 2012

REPUBLIC SERVICES
13570 St. Charles Rock Road
Bridgeton, Missouri 63044
Telephone: (314) 744-8190
Facsimile: (314) 739-2588

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1-1 Leachate Tank System Operational Personnel

1.0 INTRODUCTION

This document is the site Standard Operating Procedure (SOP) for operation and maintenance of the leachate tank system at the Bridgeton Landfill, 13570 St. Charles Rock Road, Bridgeton, Missouri 63044. This SOP has been developed by the Bridgeton Landfill for use by onsite personnel involved with the leachate tank system operation and preventative maintenance. The purpose of this document is to establish a set timeframe for inspection, operation, maintenance, repair, and regeneration of each of the components of the facilities leachate storage, recirculation, and extraction tank to sustain permissible discharge effluent of the facility.

1.1 Tank Background and Goal

The Bridgeton Landfill produces on average 100,000 to 150,000 gallons of Leachate each day. There are currently 5 leachate collection sumps in the landfill network. Each collection sump is capable of pumping approximately 175 gallons per minute. One to five pumps operate in tandem to remove maximum leachate volume and maintain a leachate height of 30 ft. or less within the landfill. Leachate is permitted to be discharged to the Metropolitan St. Louis Sewer District (MSD) under Wastewater Discharge Permit No. 0511559802-2. To assist the facility in ensuring that effluent leachate constituent concentrations are below permitted limitations, and that excessive levels of methane and hydrogen sulfide are not released into the MSD sanitary sewer system the facility has implemented a number of engineering controls.

The Bridgeton Landfill utilizes an 89,000-gallon capacity *Aquastore*, glass-lined liquid collection tank to contain, recirculate, atomize, and subsequently extract toxic gases entrained in the leachate produced within the facility prior to discharging. The tank has a series of valves that can be actuated to regulate various activities within. Dependent on valve position the tank liquid level and discharge rate can be controlled, the leachate can be stirred to free up any tank deposits from settling, or it can be run through the atomizer.

The leachate tank is also fitted with a 2" high-density polyethylene vacuum line. This line, operating courtesy of vacuum provided by the landfill's gas control and collection system blower is designed to remove gases such as methane and hydrogen sulfide commonly found in leachate, as well as vapor-phase organic constituents.

As a redundancy the Bridgton Landfill leachate tank system employs a dual carbon-vessel filtration system to supplement any temporary loss of vacuum to the tank from the main extraction line. In the case of a gas collection and control system malfunction this system is able to perform the duties of gas removal from the tank until the issue can be corrected.

Each system, as explained in this SOP has a monitoring schedule and contingency plan to insure proper and sustained operation.

1.2 List of Leachate Tank Operations Personnel

The following table represents the Bridgeton Landfill Personnel responsible for leachate tank system operation. The table details each individual's specific responsibilities regarding leachate tank operation and individual contact information:

Table 1-1 Leachate Tank System Operational Personnel

Title	Personnel	Phone numbers	
		Work	Mobile
Site Manager	**David Vasbinder**	**(314) 744-8116**	**(314) 249-9404**
Leachate Collection System Specialist	**Bryan Sehie**	**(314) 744-8190**	**(314) 443-0179**
Leachate Tank Technician	**Randy Meibaum**	**(314) 744 -8165**	**(314) 393-2613**
Gas Control and Collection System Technician	**Mike Lambrich**	**(314) 744-8175**	**(314) 683-3921**

2.0 LEACHATE TANK SYSTEM OPERATION AND MAINTENANCE

2.1 Tank Level Control Valve

The dimensions of the Aquastore leachate containment tank are 25 ft. in diameter by 29 ft. in height. The tank is equipped with two inlets, each of which deposit leachate from opposite sides of the landfill. The tank is also equipped with two outlets; a gravity drain, positioned near ground-level; and an anti-siphoning overflow drain near the top of the tank. Leachate is typically controlled through actuation of the bottom gravity drain through a butterfly valve on the outside of the tank. The top-located, anti-siphoning drain is designed to prevent tank overflow in the event that influent leachate volume surpasses gravity drain capability. Operation and maintenance duties and frequencies are as follows:

Operation:

- To optimize efficiency of the atomization and extraction unit in the system, a maximum tank liquid level between 6 ft. and 16 ft. shall be maintained. Maintaining this liquid level allows for sufficient headspace, and atomization time within the tank to promote ideal gas and vapor removal.
- The tank level indicator is located within the tank secondary containment wall, on the control panel.
- If the tank level is not within the optimal range, the gravity drain valve should be readjusted to the appropriate setting. If the tank level has accumulated above 16 ft., the drain valve control should be adjusted slightly to the right. If the tank level has dropped below 6 ft., then the drain valve control should be adjusted slightly to the left. If the tank level has lowered below 5 ft. in height the centrifugal recirculation pump should be restarted.
- Tank level monitoring is to take place once each week to ensure desired tank level is maintained.

Maintenance:

- Inspect all drainage valves, piping and flanges for leaks and excessive wear.
- Ensure that the tank level measurement display is functional.

2.2 Leachate Atomizer

The tank is outfitted with a centrifugal pump which quaffs leachate accumulation from the bottom of the tank and draws it upward through a 2" high-density polyethylene line to the roof of the tank where it is then forced, at a high rate of pressure, through a spray atomizer nozzle. The atomization process helps to strip the leachate of entrained gases and organic vapors such as methane and hydrogen sulfide by spraying the liquid high above the tank accumulation level in a 50 degree wide spray pattern. The atomization system is designed to run 24 hours a day 7 days a week, unless the tank circulation system is activated. Operation and maintenance duties and frequencies are as follows:

Operation:

- Check centrifugal pump to ensure that it is powered on. The start/stop buttons are located on the tank control panel inside the leachate system secondary containment wall.
- Inspect atomization discharge line valve to make sure that it is in the "on" position.
- Operational check of the leachate atomizer is to be performed once per week.

Maintenance:

- Inspect centrifugal pump for leaks, damage, and excessive wear.
- Inspect piping for leaks, and excessive wear.

2.3 Leachate Circulator

The leachate circulator serves the purpose of stirring the tank to break up any deposited sediment or build-up that has settled at the bottom of the tank and allow it to drain through the lower gravity-drain outlet. The leachate circulator is typically not in operation due to the operation of the atomizer. Being that the circulation system uses the same centrifugal pump to operate as the atomizer the two systems cannot run in tandem. To stir the tank the atomizer valve must be turned to the "off" position, and the circulator value must be moved to the "on" position. This will direct liquid to the circulator. Both valves must not remain closed for an extended period of time as this will cause a "dead-pan" scenario which may cause premature damage to the pump. The operation and maintenance duties and frequencies are as follows:

Operation:

- When operating the circulator, first completely open the circulation valve located at the inlet of the circulation piping near the tank centrifugal pump.
- Once the circulation valve is open completely close the atomizer valve.
- Reverse the process when finished.
- Check centrifugal pump to ensure that it is powered on. The start/stop buttons are located on the tank control panel inside the leachate system secondary containment wall.
- Do not operate the circulator for more than 24 hours so that the atomizer may be returned to service.

- This system should only be operated on an as-needed basis.

Maintenance:

- Inspect centrifugal pump for leaks, damage, and excessive wear.
- Inspect piping for leaks, and excessive wear.

2.4 Gas Extraction Vacuum Line

Gases present from the atomization of leachate are subsequently extracted through a 2" high-density polyethylene vacuum line located at the roof of the tank. The line is directed to the landfill's gas collection and control system network, where the captured gases are ultimately routed to the landfill flare and destroyed. The flare blower provides between 2" and 11" of vacuum at the tank for such gas removal. Similar to the gas collection system, the leachate system lines will develop condensate. As such, the leachate gas extraction system contains an underground sump which collects any accumulation of condensate in the line and pumps it back into the leachate collection system. This sump unit helps to return lost liquids to the leachate system and maintains a free flow of vacuum in the line by preventing it from "watering-in." The operation and maintenance frequency of the gas extraction vacuum line is as follows:

Operation:

- The gas extraction vacuum line is always in operation so long as the landfill gas collection and control system is also operational.
- A vacuum reading should be taken once each week to ensure that the system is flowing freely. The vacuum monitoring port is located on the vacuum line at eye-level just outside of the east section of the tank secondary containment wall.
- The pump in the condensate sump should be checked for operation once per week to ensure that any liquid accumulation is being removed from the system.
- In the event of a gas collection and control system malfunction, the carbon filtration system should be turned on.
- If necessary the vacuum to the tank can be shut off via the vacuum control valve located next to the vacuum monitoring port.

Maintenance:

- Inspect all vacuum lines and fittings shall be inspected for leaks and signs of damage or excessive wear.

2.5 Carbon Vessel Filtration System

As a redundancy to the gas extraction vacuum system, the Bridgeton Landfill has also implemented a carbon vessel filtration system. This system can apply vacuum to the tank and remove gases and vapor by drawing them out through a 6" PVC line in the tank's roof and directing them through a series of two granular activated-carbon vessels. The vessels are arranged in a lead-lag scenario were the primary (lead) vessel is designed to remove 100% of all incoming toxic gasses. Monitoring ports are installed prior to the influent of the lead vessel to collect data on gas composition as it enters the carbon media. A second sampling port is installed at the effluent of the lead vessel to monitor for any break-through. Airflow from the lead vessel effluent is subsequently directed to the second (lag) vessel as a redundancy to ensure that no possible break-through of gases to the atmosphere occur. The effluent of the lag vessel is also monitored. The carbon filtration system has a vacuum pump

that is independent of the gas collection and control system so that it can be operated in the event the latter system experiences a malfunction. This offers the ability to have uninterrupted gas and vapor removal at the leachate tank. When the carbon filtration system is in operation the operation and maintenance frequency is as follows:

Operation:

- In the event of a gas collection and control system malfunction the carbon filtration system shall be powered on. This can be done by positioning the carbon filtration system control lever to "on." The control lever is located on the panel, to the right of the main leachate tank control panel, inside the secondary containment area.
- During operation the three monitoring ports in the system should be read on a daily basis to ensure that hydrogen sulfide break-through at the lead vessel has not occurred. Monitoring for hydrogen sulfide will be performed using a 4-gas meter. In the event that hydrogen sulfide concentration at the effluent of the lead vessel reaches 5 ppm the carbon in the lead vessel shall be replaced.
- Replacement virgin granular activated-carbon is stored onsite. Once a 5 ppm hydrogen sulfide break-through is detected, spent carbon will be removed from the lead vessel using a drum-vacuum. The carbon will be containerized in 55-gallon drums and marked for proper disposal. Virgin carbon will be placed in the vessel and operation can be restored.
- During operation of the system a daily condensate accumulation check must be performed to insure that there has not been any accumulation in the demister box. Due to the installation of a condensate knock-out pot this scenario is unlikely under daily monitoring.
- The effluent to the atmosphere will be monitoring using a 4-gas meter as well to ensure overall system performance. The lag vessel will receive a carbon replacement when effluent concentration reach a level of 5 ppm hydrogen sulfide. Replacement virgin carbon for the lag vessel is also stored onsite.

Maintenance:

- Inspect all PVC, lines, piping, and valves in the carbon system network for leaks, damage, or excessive wear weekly.
- Inspect demister box to ensure lid is in place, seated, and free of damage weekly.
- Drain any condensate from the knock-pot as needed.
- Make sure that carbon filtration system vacuum pump is operational on a weekly schedule.

3.0 ADDITIONAL MEASURES

3.1 Bridgeton Landfill Discharge Junction Vault Monitoring

The Bridgeton Landfill has also installed an additional multi-gas monitoring port within the leachate discharge junction vault situated to the north of the leachate tank area. This vault is the last monitoring location of the leachate discharging from the landfill prior to entering the MSD pump station. The addition of this sampling port will allow the landfill to measure levels of methane and hydrogen sulfide in the leachate piping immediately prior to discharge. This sampling port will be monitored weekly to ensure that effluent leachate gas levels will not be excessive in the sanitary sewer system.

Bridgeton Landfill
1003803000

OB
TM

Tom Boehm

From: Tom Boehm
Sent: Friday, June 29, 2012 7:59 AM
To: Bruce Litzsinger; Rob G Daly; Mark Bright
Cc: Jay Kniker; Ryan Sabourin; Doug Mendoza; Christopher J. Bulmahn
Subject: Westlake Pump Station Update

Tracking:

Recipient	Delivery
Bruce Litzsinger	Delivered: 6/29/2012 7:59 AM
Rob G Daly	Delivered: 6/29/2012 7:59 AM
Mark Bright	Delivered: 6/29/2012 7:59 AM
Jay Kniker	Delivered: 6/29/2012 7:59 AM
Ryan Sabourin	Delivered: 6/29/2012 7:59 AM
Doug Mendoza	Delivered: 6/29/2012 7:59 AM
Christopher J. Bulmahn	Delivered: 6/29/2012 7:59 AM

Update:

James Martin, the Area Environmental Manager for Republic Services, whose office is in DeSoto, IL, called to discuss the problems at the Westlake PS. More than once during the conversation, he stressed that the owner of the landfill, Republic Services, takes compliance issues very seriously and wanted to meet with us to discuss the requirements and timelines for responding to the NOV's and to give us an idea of what actions they are planning in order to return to compliance.

Doug Mendoza, Chris Bulmahn and I met with Mr. Martin to discuss the recent NOV's for the Self-Monitoring TTO exceedance and the associated problem atmospheric conditions created in the Westlake Pump Station.

During our meeting, we explained to James the issue of Significant Noncompliance and actions they need to complete to be relieved of being considered SNC. He assured us that they would respond to the NOV's by the due dates.

The main topic was the problems created in the pump station. James stated that they believe the LEL and PEL exceedances are a product of the subsurface oxidation event (aka fire) that is currently smoldering under the landfill. He explained it is contained and isolated in one of the quarry cells. He went on to say that the 'oxidation' event is causing the generation of more methane than can be currently handled by their vac and flare system. They are in the process of planning to get a new system installed that will collect more methane at each of the wells and from the pretreatment tank across from the pump station. It is his opinion that this action will positively impact the recent problems at the landfill and surrounding area.

I will keep you posted.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

Industry: Bridgeton Landfill LLC 1003803000

From: David Kupke DK

Date: 06/28/12

Re: Change in Account Number

The account number for this company has been changed from: 0511559802

to: 1003803000

The change is due to the need to have all industry account numbers conform to the billing premise # - based system, so that the correct "compliance fee tier" charge can be automatically added to the sewer bill each month.

Industry: Bridgeton Landfill LLC 1003803000

From: David Kupke DWK

Date: 06/28/12

Re: Change in Account Number

The account number for this company has been changed from: 1020669700

to: 1003803000

The change is due to the need to have all industry account numbers conform to the billing premise # - based system, so that the correct "compliance fee tier" charge can be automatically added to the sewer bill each month.

Bridgeton Landfill LLC
0571539802

SB
VM

Tom Boehm

From: Tom Boehm
Sent: Thursday, June 21, 2012 7:46 AM
To: Bruce Litzsinger; Rob G Daly; Mark Bright
Cc: Jay Kniker; Ryan Sabourin; Doug Mendoza; John Lodderhose
Subject: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)

Tracking:

Recipient	Delivery
Bruce Litzsinger	Delivered: 6/21/2012 7:46 AM
Rob G Daly	Delivered: 6/21/2012 7:46 AM
Mark Bright	Delivered: 6/21/2012 7:46 AM
Jay Kniker	Delivered: 6/21/2012 7:46 AM
Ryan Sabourin	Delivered: 6/21/2012 7:46 AM
Doug Mendoza	Delivered: 6/21/2012 7:46 AM
John Lodderhose	Delivered: 6/21/2012 7:46 AM

Update:

Dave Vasbinder and I have been trading voicemail because he has been at offsite meetings the last couple of days. He left a lengthy message late yesterday (Wednesday) about their commitment to getting this issue taken care of.

A number of issues were brought forth, but he stated they think increased methane output is the main culprit. He explained the landfill is generating more methane than they expected and the current vacuum and flare system may have to be updated.

They would like to meet to discuss the problems, present their ideas and solicit ours.

I'll keep you posted.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

Metropolitan St. Louis Sewer District

Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

June 20, 2012

Dave Vasbinder, Environmental Manager
BRIDGETON LANDFILL LLC
13570 St. Charles Rock Rd.
Bridgeton, MO 63044

RE: NOTICE OF VIOLATION FOR PROHIBITED DISCHARGES AND TREATMENT REQUIREMENTS
For premise: 13570 St. Charles Rock Rd., 63044, MSD Permit #: 0511559802

Dear Mr. Vasbinder:

As you are aware from recent conversation, MSD crews recently visited the Westlake Pump Station (WPS) to conduct routine maintenance but were unable to enter the vault because of a substandard atmosphere that included elevated levels of hydrogen sulfide (H_2S) and Carbon Monoxide (CO), an oxygen (O_2) deficiency, and readings of over 10% of the Lower Explosive Limit (LEL). I have done subsequent monitoring that verified these findings. I also checked levels of these gases in manholes along the sanitary main flowing from the south that handles some of the businesses in Earth City. None had any elevated levels, verifying that the atmosphere created in the WPS was caused by the collection and discharge of leachate from the Bridgeton Landfill.

VIOLATIONS OF DISCHARGE PROHIBITIONS:

No person shall discharge or cause to be discharged into any sanitary or combined sewer any of the following substances:

Ordinance 12559, Article V, Section 1.A.2, states:

> Any flammable or explosive substance which creates an atmosphere within the wastewater system which exceeds ten percent of the Lower Explosive Limit (LEL) as designated by the National Fire Protection Association except for excursions allowed pursuant to the continuous monitoring provisions in Article X, Section Two, Subsection C; or which causes the discharge into the District's sewer to have a closed cup flashpoint of less than 140 degrees Fahrenheit (60 degrees Celsius). Closed cup flashpoints shall be determined using the test methods specified in 40 CFR 261.21.

Ordinance 12559, Article V, Section 1.A.8, states:

> Any water or waste which by itself or by interaction with other materials, emits toxic gases, vapors or fumes into the atmosphere of any area of the wastewater system at levels in excess of Permissible Exposure Limits (PEL) established for air-borne contaminants by the Occupational Safety and Health Administration (OSHA) or Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH).

VIOLATIONS OF TREATMENT REQUIREMENTS:

Ordinance 12559, Article V, Section 3.D., states:

> Bypassing: No industrial user may bypass any portion of its pretreatment facilities except when necessary to perform essential maintenance and then only if the bypass will not result in a violation of applicable pretreatment standards or requirements. Any other pretreatment facility bypass is prohibited unless:
>
> (1) The bypass is unavoidable to prevent loss of life, personal injury or severe property damage;
> (2) There are no feasible alternatives to the bypass; and
> (3) In the event of an anticipated bypass, advance notice is provided to the Director.
>
> Any pretreatment facility bypass shall be reported to the Director in accordance with the provisions of Article VIII, Section Eight of this Ordinance.

Ordinance 12559, Article VII, Section 7, states:

> Pollution Control Operations: All facilities for the treatment, pretreatment, or control of wastewater, cooling water or storm water or for spill containment shall be maintained continuously in satisfactory and effective operation by the user at the user's expense and shall be subject to inspection as deemed necessary by the Director. The user shall maintain operating records and shall submit all reports as stipulated in Article VIII, and Article X, of this Ordinance. Sludges, floatables and all other residuals removed during treatment or pretreatment operations or from grease, oil and grit traps or from spill containment facilities or from accidental discharge remediation activities, shall be disposed of in accordance with applicable local, State and Federal regulations.

Section 1.D of your Industrial Wastewater Discharge Permit, states:

> The permittee may not bypass any portion of its pretreatment facilities except when necessary to perform essential maintenance and then only if the bypass will not result in a violation of applicable pretreatment standards or requirements. Any other pretreatment facility bypass is prohibited unless:
>
> a. The bypass is unavoidable to prevent loss of life, personal injury or severe property damage;
> b. There are no feasible alternatives to the bypass; and
> c. In the event of an anticipated bypass, advance notice is provided to the District's Division of Environmental Compliance.

We want to impress upon you the gravity of the situation. MSD personnel must be able to access the sewer system at any point in time to be able to perform both routine and emergency maintenance without added concern for toxic, explosive, or oxygen deficient atmospheres. Problems that cannot be addressed in a timely manner may cause a violation of the District's NPDES Permits, which is certainly cause for concern, but if our equipment fails and sewage bypass occurs, we could be assessed significant fines under our newly certified consent decree with EPA. The above mentioned items contribute to our inability to access and work on the sewer system, increase costs of maintaining the system, and violate prohibitions detailed in our Ordinance 12559.

REQUIRED ACTION/RESPONSE:

- You must submit a detailed plan of action to eliminate the discharge that is causing the atmospheric issues that may cause operational problems within our sanitary sewer main. The plan must eliminate the violations of our prohibitions. **Please submit this document by July 23, 2012.**

- In the interim, coordination with our Operations Staff to shut off the flow to our main during maintenance activities will allow them to perform the routine and emergency maintenance needed to keep our system working in an acceptable manner. I have given the Operations Staff phone numbers for you, Brian Sehigh, and Randy Meibaum to contact when they will need to enter the pump station. I have instructed them to call at least 24 hours ahead of time to permit your staff time to prepare for ceasing the discharge.

- Regardless of the implementation status of your plan, any future costs that are related to MSD's additional equipment or time needed to perform maintenance at or near the WPS may be billed to **BRIDGETON LANDFILL LLC** as referenced in Ordinance 12559, Article IX, Section Six – Recovery of Costs, which states:

> The Director may bill a user for the costs incurred by the District for any work undertaken pursuant to the provisions of Article IV, Section Two; Article VII, Section Nine; Article IX, Section Three and Article X, Section Nine of this Ordinance. Failure to pay any such assessed costs within thirty (30) days after demand has been made shall constitute a violation of this Ordinance, enforceable under the provisions of this Article, or notice may be filed in the Office of the Recorder of Deeds of the City or County having jurisdiction, as the case may be, whereupon such bill shall become a lien against the property involved.

MSD's Enforcement Response Plan requires MSD to initiate additional enforcement action, if necessary, to secure timely and effective compliance. This plan is an integral part of MSD's Pretreatment Program, required and approved by the Missouri Department of Natural Resources.

Thank you for helping us to comply with state and federal regulations. If you have any questions, please contact me at 314.436.8719.

Sincerely,

METROPOLITAN ST. LOUIS SEWER DISTRICT

Tom Boehm
Environmental Engineering Associate

cc: DEC: Doug Mendoza, Chris Bulmahn, Bruce Litzsinger, John Lodderhose
Operations: Rob Daly, Jay Kniker, Mark Bright

√m

Doug Mendoza

Bridgeton Landfill
0511559802

From: Tom Boehm
Sent: Wednesday, June 20, 2012 7:33 AM
To: Bruce Litzsinger; Rob G Daly; Mark Bright
Cc: Jay Kniker; Ryan Sabourin; Doug Mendoza
Subject: RE: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)

I have been told that Dave Vasbinder's prefix has changed to match the rest of the office #s at the landfill.

See correction in **bold**.

Dave Vasbinder (Environmental Manager)
Office: 314.**744**.8166
Cell: 314.249.9404

Brian Sehigh (Operations Lead)
Office: 314.744.8190
Cell: 314.443.0179

Randy Meibaum (Operations/Environmental Tech)
Cell: 314.393.2613

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Bruce Litzsinger
Sent: Tuesday, June 19, 2012 9:43 AM
To: Rob G Daly; Mark Bright
Cc: Jay Kniker; Ryan Sabourin; Doug Mendoza; Tom Boehm
Subject: FW: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)

Bridgeton Landfill contact information below to coordinate temporary discharge shut down while MSD performs maintenance, per our meeting last week. Doug Mendoza is back from vacation, he and Tom are working on a formal Notice of Violation, which they will send you a copy. At this point, I'll bow out and Doug and/or Tom will keep you in the loop, Thanks!

Dave Vasbinder (Environmental Manager)
Office: 314.776.8166
Cell: 314.249.9404

Brian Sehigh (Operations Lead)
Office: 314.744.8190

03

Christopher J. Bulmahn Bridgeton Landfill 05/155 9802

From: Vasbinder, David <DVasbinder@republicservices.com>
Sent: Monday, June 18, 2012 1:26 PM
To: Christopher J. Bulmahn
Cc: Sehie, Bryan
Subject: RE: Authorized Signatory.

Thank you for the response Chris.

I authorize Bryan Sehie to submit data and reports on behalf of the Bridgeton Landfill (Bridgeton Landfill, LLC) and the Missouri Pass Landfill (BFI Waste Systems of North America, LLC). If you have any questions please contact me at your earliest convenience.

Have a great day,

Dave Vasbinder | Environmental Manager | Republic Services, Inc.

13570 St. Charles Rock Rd. | Bridgeton, MO 63044
☎ 314.744.8166 314.249.9404

From: Christopher J. Bulmahn [mailto:cjbulmahn@stlmsd.com]
Sent: Monday, June 18, 2012 7:14 AM
To: Vasbinder, David
Cc: Sehie, Bryan
Subject: Authorized Signatory.

Dave,

An email will be sufficient to include Bryan as an authorized signatory. I have attached a section from the MSD Ordinance 12559 that covers this.

Thank you,

Chris Bulmahn
Associate Engineer
Environmental Engineering
Metropolitan St. Louis Sewer District
10 E. Grand Avenue
St. Louis, MO 63147-2913
(P) 314-436-8721
(F) 314-436-8753
cbulmahn@stlmsd.com

Bridgeton Landfill
0511 559802

Tom Boehm

From: Tom Boehm
Sent: Monday, June 18, 2012 1:28 PM
To: Doug Mendoza; Bruce Litzsinger; Christopher J. Bulmahn
Subject: FW: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)
Attachments: BridgeLF area map w061812.jpg

Tracking:

Recipient	Delivery
Doug Mendoza	Delivered: 6/18/2012 1:28 PM
Bruce Litzsinger	Delivered: 6/18/2012 1:28 PM
Christopher J. Bulmahn	Delivered: 6/18/2012 1:28 PM

Doug, Bruce, Chris:

I visited the Bridgeton Landfill area again today to see if anything has changed. The only change was at the first MH upstream (10O3-098S) of the pump station. The monitor showed no H2S nor LEL readings above 0, somewhat different than on Thursday.

I measured the atmosphere at the different MSD structures listed below, 6' below surface, and at waist height just above the opening to the wetwell. See attached map for MH locations.

At the pump station, waist height above open wet well:
H2S: 0 ppm
O2: 20.9 %
CO: 0-5 ppm
LEL: 0 %

At the pump station, 6' below surface: ('burnt' odor was present)
H2S: 3-15 ppm
O2: 13-18 %
CO: ~300-550 ppm
LEL: constant 13 %

At MH# 10O3-098S (no noticeable odor)
H2S: 0 ppm
O2: 20.9 %
CO: 0 ppm
LEL: 0 %

At MH# 10O3-012S (same readings as last time)
H2S: 0 ppm
O2: 20.9 %
CO: 0- 4 ppm
LEL: 0 %

Bruce:
The contact #s that we discussed in the meeting with Pump Station personnel on Thursday the 14th are as follows. (The PS guys wanted contact information for the landfill personnel so that they could contact them directly to coordinate maintenance at the Westlake PS.) I will email our phone numbers (Lemay Board Engineer, County Pump Station Supervisor (Mark Bright))to the primary contact at the landfill and ask that he provide them to the other key personnel on site and to post the #s where others can find them in the case the 3 contacts below are not on site.

Dave Vasbinder (Environmental Manager)
Office: 314.776.8166
Cell: 314.249.9404

Brian Sehigh (Operations Lead)
Office: 314.744.8190
Cell: 314.4430179

Randy Meibaum (Operations/Environmental Tech)
Cell: 314.393.2613

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Tom Boehm
Sent: Thursday, June 14, 2012 3:57 PM
To: Bruce Litzsinger
Subject: FW: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)

I made another site visit today to try to isolate the source of the gases that we are experiencing @ Westlake Pump Station.

I measured the atmosphere at the different MSD structures listed below, 6' below surface.

At the pump station: (results at this location showed a relatively wide range; strong odor)
H2S: 3-15 ppm
O2: 13-18%
CO: ~200 – 650 ppm
LEL: 16-28%

I moved to the upstream structure, at MH# 10O3-098S (results were relatively constant; moderate odor)
H2S: 0-12 ppm
O2: 16.7%
CO: 50-85ppm
LEL: 14%

I moved to the next upstream structure, at MH# 10O3-012S (results were constant and low; no discernible odor)
H2S: 0 ppm
O2: 20.5%
CO: 4 ppm
LEL: 0%

In my opinion, this shows that the wastewater coming from businesses on Corporate Exchange are not contributing to the H2S or LEL issues that we are experiencing at the pump station.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Tom Boehm
Sent: Wednesday, June 13, 2012 3:56 PM
To: Bruce Litzsinger
Subject: RE: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)

Joe and I met with company reps today and reviewed their system and they were invited to take a look at the pump station. They could come up with no reasons why their leachate would have different characteristics than at any other time in the recent past. Operational problems such as sumps that had malfunctioning pumps have been fixed, the vacuum system has been unclogged, etc. yet it had no impact on the readings from the 4 gas monitor. We got virtually the same readings today as yesterday.

They will contact their consultants that will try to come up reasons why this is happening and will do some air monitoring in their pretreatment system to see if results on their property are consistent with those found by us.

When asked, the contact stated they could suspend discharge by recirculating the leachate back through the system and would need only a day's lead time. He was not completely sure, but thought they could go a day if we needed that much time to conduct the work we need done on our vault.

I will trace our mains to see who has potential to create this environment in the vault.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Bruce Litzsinger
Sent: Tuesday, June 12, 2012 4:58 PM
To: Ryan Mambourin; Rob G Daly; Mark Bright
Cc: Tom Boehm; Joseph J Grib; John Lodderhose; Alverda Opperman
Subject: RE: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)

Tom and Joe will visit landfill operator tomorrow to see what can be done operationally on pretreatment. However, landfill leachate doesn't change characteristics fast. If these characteristics cannot be easily corrected, for example, dealing with their sub-surface fire or reaction (reason for burnt smell) or low leachate flow due to dry weather/ low water table (with higher concentrations), then I think we need to start planning for how MSD will work to mitigate hazards (billing customer for costs) or ceasing discharge from customer while coordinating our work. If we can cease the landfill discharge for short periods of time to enable maintenance, this will require coordination on timing our work with their discharge. As we work on the problem with the landfill, I'd like some input from you on these two options so we know what direction to take on enforcement. Can we mitigate hazardous conditions, what will it take, is it feasible? How long will it take to do maintenance, what would the schedule and timing look like? I'll call or email tomorrow after our visit to the landfill. Thanks.

Bruce Litzsinger
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 E. Grand Ave.
St. Louis, MO 63147
Phone: 314-436-8757

From: Tom Boehm
Sent: Tuesday, June 12, 2012 3:28 PM
To: Bruce Litzsinger
Subject: FW: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)

Bruce,

I met with Joe Grib at the pump station to monitor the atmosphere inside the vault. A 'burnt' odor was evident.

At ~ 2:00 pm, we saw the readings on 3 of the parameters run the gamut from almost 0 to spikes. H2S was somewhat static.

LEL: From 0 to ~30%
CO: From 35 to ~800ppm
O2: From 14 to 22%
H2S: From 0 to ~14

I am going to meet with landfill personnel tomorrow to garner more details.

Please call or write with any questions or comments. Thanks.

Tom Boehm | Metropolitan St. Louis Sewer District | Engineering/Environmental Compliance | p. 314.436.8719 | f. 314.436.8753

From: Rob G Daly
Sent: Tuesday, June 12, 2012 12:43 PM
To: Bruce Litzsinger
Cc: Tom Boehm; Mark Bright; Doug Mendoza; Ryan Sabourin
Subject: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)

Bruce

Please be advised from my end that that I feel that this has assumed a higher level of importance. Our ability to perform maintenance or conduct emergency repairs is significantly compromised right now- raising the risk level of an overflow event. Staff safety is higher level concern right now than even an overflow event and I feel we need to make this visit to site sooner rather than later. We are NOT poised to imminently overflow- but need to reduce that risk as soon as humanly possible (preferred timeline- immediately) by reducing the gas levels at the site and getting back our ability to safely operate in the area.

Also- can I please get added to communications loop on issue resolution from your end? I have instructed Mark to pass on to our folks that no maint response will be conducted until we get something done out here due to staff safety concerns noted today. That is obviously NOT where I want to be and raises risk all around- which is bad news.

Any assistance in fast tracking your enforcement side of it would be greatly appreciated. Will call to discuss as well. Many thanks.

Rob Daly, EIT
Division Manager- Pump Stations
Department of Operations
Metropolitan St Louis Sewer District
1025 Grand Glaize Parkway
Valley Park, MO 63088-1952
(636) 861-6706 (Office)

rdaly@stlmsd.com

From: Mark Bright
Sent: Friday, June 08, 2012 11:21 AM
To: Doug Mendoza
Cc: Bruce Litzsinger; Tom Boehm; Rob G Daly
Subject: RE: Odor issues at Westlake Pump Station

The following was sent to me by one of my crew members on June 6.

Mark,
I just finished a call at Westlake, 3 failed then 2, Hi water. When I arrived I put my gas monitor by the wet well (while hatches were closed) and LEL was off the charts, low to mid 40s. In the short time I was there, my eyes were burning, throat hurting and generally not a good feeling. Odor was terrible; I went ahead and reset the pumps. It cycled, but I didn't hang around long. I notified Lemay to only call me if all 3 pumps failed, or hi level stayed for a minimum of 1 hour. We need to address the gas and odor level as a top priority. I really feel like this is an unsafe place to be.

Thank You.

Mark Bright
Metropolitan St. Louis Sewer District
Operations Supervisor / County Pump
636-861-6735

mbright@stlmsd.com

From: Doug Mendoza
Sent: Friday, June 08, 2012 11:09 AM
To: Mark Bright

Cc: Bruce Litzsinger; Tom Boehm
Subject: RE: Odor issues at Westlake Pump Station

This time with Mark as the "to" person. Sorry!

From: Doug Mendoza
Sent: Friday, June 08, 2012 11:08 AM
To: Bruce Litzsinger; Tom Boehm
Subject: RE: Odor issues at Westlake Pump Station

Mark,

Didn't Tom call you yesterday to discuss details? There wasn't enough information in the emails to be useful. He cannot really do a whole lot to help unless he knows just what the "issues" are – safety vs. corrosion vs. odors, etc – and when it occurs – how long it has been going on, intermittent, etc.

Tom has already made contact with the landfill, but I believe he is still waiting for details from Operations.

---Doug

From: Bruce Litzsinger
Sent: Friday, June 08, 2012 11:01 AM
To: Tom Boehm
Cc: Doug Mendoza
Subject: FW: Odor issues at Westlake Pump Station

I know you are on this, just passing along customer comments. Thanks.

Bruce Litzsinger
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 E. Grand Ave.
St. Louis, MO 63147
Phone: 314-436-8757

From: Mark Bright
Sent: Friday, June 08, 2012 10:48 AM
To: Bruce Litzsinger; Jay Kniker; Ryan Sabourin
Cc: Rob G Daly
Subject: RE: Odor issues at Westlake Pump Station

We are having issues with the operation on the station now and it is very difficult to work in the environment at the station.

We need to move on this issue.

Thank You,

Mark Bright
Metropolitan St. Louis Sewer District
Operations Supervisor / County Pump
636-861-6735

mbright@stlmsd.com

From: Bruce Litzsinger
Sent: Friday, June 08, 2012 10:39 AM

To: Jay Kniker; Mark Bright; Ryan Sabourin
Subject: FW: Odor issues at Westale Pump Station

FYI – our pretreatment staff will visit the landfill, Tom Boehm. Thanks.

Bruce Litzsinger
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 E. Grand Ave.
St. Louis, MO 63147
Phone: 314-436-8757

From: Doug Mendoza
Sent: Thursday, June 07, 2012 7:40 AM
To: Bruce Litzsinger; Tom Boehm; Christopher J. Bulmahn
Cc: Alverda Opperman
Subject: RE: Odor issues at Westale Pump Station

Bruce - That would be the Bridgeton Landfill.

Tom – Mark Bright says, "In the last couple of months it has been very difficult for the crews to work around the station" below. Obviously, that's not very useful information. You will need to contact Mark for more details. I suspect (as you may also), that the methane collection system at Bridgeton Landfill is not working properly again. Probably associated with other changes they made as noted in your last inspection, but I'm not as familiar with the place as you. Regardless, please find out what's up at the landfill, let them know it needs fixing ASAP, etc. I think once you get initial info from landfill, a letter should be sent requiring correction. If they fail to do in a timely manner, then NOV/enforcement. However, depending on what you find, we may start with NOV. Keep Mark Bright w/Operations in the loop. I'm sure I don't need to remind you, but get started on this right away – it involves safety issues for MSD workers.

Chris – This will start the "non-routine" enforcement items that you will track, "ride herd on", etc. We will discuss these during our Monday morning updates.

From: Bruce Litzsinger
Sent: Wednesday, June 06, 2012 10:46 AM
To: Doug Mendoza
Cc: Alverda Opperman
Subject: FW: Odor issues at Westale Pump Station

Doug do you want to have your inspector check this out? I think it's the Westlake landfill in Bridgeton. I thought I'd heard of some issues regarding the facility a few months back also?

Bruce Litzsinger
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 E. Grand Ave.
St. Louis, MO 63147
Phone: 314-436-8757

From: Mark Bright
Sent: Wednesday, June 06, 2012 9:24 AM
To: Bruce Litzsinger
Subject: RE: Odor issues at Westale Pump Station

You are correct, Westlake Pump Station located at the intersection of St Charles Rock Road and Boenker Ln (at the end of Boenker Ln).

Thank You,

Mark Bright
Metropolitan St. Louis Sewer District
Operations Supervisor / County Pump
636-861-6735

mbright@stlmsd.com

From: Bruce Litzsinger
Sent: Wednesday, June 06, 2012 8:26 AM
To: Mark Bright; Ryan Sabourin; Doug Mendoza
Cc: Jay Kniker; Lucrecia Cummings; Paul Milton; Alverda Opperman
Subject: RE: Odor issues at Westale Pump Station

Mark,
Where is the Westale pump station, did you mean,West Lake? Because you mentioned "landfill" below, I copied Doug Mendoza (he regulates industrial users) because if hazardous conditions in the sewer are created by a landfill, then MSD Ordinance violations may apply to the industry. Thanks.

Bruce Litzsinger
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 E. Grand Ave.
St. Louis, MO 63147
Phone: 314-436-8757

From: Mark Bright
Sent: Tuesday, June 05, 2012 11:57 AM
To: Ryan Sabourin; Bruce Litzsinger
Cc: Jay Kniker; Lucrecia Cummings; Paul Milton
Subject: Odor issues at Westale Pump Station

Ryan we need to revisit the operating conditions at the pump station. In the last couple of months it has been very difficult for the crews to work around the station. The had been pretreating their water from the land fill.

Mark Bright
Metropolitan St. Louis Sewer District
Operations Supervisor / County Pump
1025 Grand Glaize Parkway
Valley Park, MO 63088

Office: 636-861-6735
Fax: 636-861-6721

mbright@stlmsd.com

Doug Mendoza

BRIDGETON LANDFILL
0511 5598-02

From: Bruce Litzsinger
Sent: Tuesday, June 19, 2012 9:43 AM
To: Rob G Daly; Mark Bright
Cc: Jay Kniker; Ryan Sabourin; Doug Mendoza; Tom Boehm
Subject: FW: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)
Attachments: BridgeLF area map w061812.jpg

Bridgeton Landfill contact information below to coordinate temporary discharge shut down while MSD performs maintenance, per our meeting last week. Doug Mendoza is back from vacation, he and Tom are working on a formal Notice of Violation, which they will send you a copy. At this point, I'll bow out and Doug and/or Tom will keep you in the loop, Thanks!

Dave Vasbinder (Environmental Manager)
Office: 314.776.8166
Cell: 314.249.9404

Brian Sehigh (Operations Lead)
Office: 314.744.8190
Cell: 314.4430179

Randy Meibaum (Operations/Environmental Tech)
Cell: 314.393.2613

Bruce Litzsinger
Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 E. Grand Ave.
St. Louis, MO 63147
Phone: 314-436-8757

From: Tom Boehm
Sent: Monday, June 18, 2012 1:28 PM
To: Doug Mendoza; Bruce Litzsinger; Christopher J. Bulmahn
Subject: FW: Westlake Pump Station- Pretreatment (gas level) (Safety Concern)

Doug, Bruce, Chris:

I visited the Bridgeton Landfill area again today to see if anything has changed. The only change was at the first MH upstream (10O3-098S) of the pump station. The monitor showed no H2S nor LEL readings above 0, somewhat different than on Thursday.

I measured the atmosphere at the different MSD structures listed below, 6' below surface, and at waist height just above the opening to the wetwell. See attached map for MH locations.

At the pump station, waist height above open wet well:
H2S: 0 ppm
O2: 20.9 %
CO: 0-5 ppm
LEL: 0 %

At the pump station, 6' below surface: ('burnt' odor was present)
H2S: 3-15 ppm
O2: 13-18 %

Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

June 11, 2012

David Vasbinder
Environmental Manager
BRIDGETON LANDFILL LLC
13570 St. Charles Rock Road
Bridgeton, MO 63044

RE: NOTICE OF VIOLATIONS – WASTEWATER DISCHARGE PERMIT NO. 0511559802 - 2
For premise at: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Dear Mr. Vasbinder:

Thank you for your June 6, 2012 letter advising us of the results of recent wastewater discharge sampling. Unfortunately, your letter identified the following violations:

VIOLATIONS OF DISCHARGE LIMITATIONS:

DATE	TIME	SAMPLE POINT	SAMPLE TYPE	POLLUTANT	DISCHARGE LIMIT	LIMIT TYPE	VALUE FOUND
05-15-12	1000	008	24-hr comp	TTO	5.844 mg/L	IN	11.96 mg/L**

008 = 1/2" flexible sampling hose 5' above grade off of an 8" discharge pipe on N side of AST
mg/L = milligrams per liter
IN = Instantaneous
TTO = Total Toxic Organics

See the enclosure for an explanation of the asterisks appearing in the Value Found column.

POTENTIAL VIOLATIONS OF DISCHARGE PROHIBITIONS:

Certain volatile chemical compounds were found at elevated levels as indicated below:

DATE	TIME	SAMPLE POINT	SAMPLE TYPE	POLLUTANT	GAS/VAPOR TOXIC SCREENING LEVEL	VALUE FOUND
05-15-12	1000	008	Grab	Benzene	0.14 mg/L	0.770 mg/L
05-15-12	1000	008	24-hr comp	Phenol	1024 mg/L	7.700 mg/L
05-15-12	1000	008	24-hr comp	P-Cresol	NA	3.100 mg/L
05-15-12	1000	008	Grab	Chlorobenzene	2.31 mg/L	0.072 mg/L
05-15-12	1000	008	Grab	1,2-Dichloroethane	1.05 mg/L	0.018 mg/L
05-15-12	1000	008	Grab	Ethyl Benzene	1.59 mg/L	0.130 mg/L
05-15-12	1000	008	Grab	Toluene	1.36 mg/L	0.170 mg/L

Any other toxic organic chemicals which are or may be present in your discharge returned analytical values less than the minimum reporting level.

Wastewater discharges are prohibited under Ordinance 12559, Article V, Section One.A.8 if they cause or contribute to emissions of toxic gases, vapors, or fumes into the sewer atmosphere at levels in excess of applicable exposure levels. The presence of volatile chemical compounds at concentrations above the screening levels can result in the generation of toxic gases or vapors in the sewer atmosphere. Such conditions pose a serious threat to the health and safety of MSD personnel and to other users of the sewer system. If several compounds are present at elevated levels, the potential for the generation of toxic gases or vapors increases due to possible additive and/or synergistic effects.

REQUIRED ACTION/RESPONSE:

MSD recognizes from your follow-up letter dated June 06, 2012, that you have identified the probable cause of the exceedance to be related to the malfunctioning leachate collection sump system at sample point 008. You have stated that a resample for TTO will be scheduled as soon as reasonably possible. Please make sure to collect a significant number of good TTO samples to avoid Significant Noncompliance for this current six-month review period.

As noted in the lab data the dilution factor for the semi-volatiles was high due to the high concentration of non-target analytes. This caused the detection limit to be greater than 0.1 mg/L and each pollutant would count towards the TTO. However we did not include them the calculation at this time due to the limit being exceeded by the pollutants listed above. Please note that while reviewing the lab data, 2-Butanone was present in elevated levels but is not part of the constituents that make up the TTO sample.

1. Submit all additional sampling results to MSD. Sample collection must occur as follows:

    a. Sample at the identified sampling points
    b. For Total Toxic Organics sampling, analyze for all the individual toxic organic chemical compounds listed above, and any other specific toxic organic chemicals which are or may be present in your discharge, as determined in your permit application and from facility inspections. These include: Benzene, Phenol, P-Cresol, Chlorobenzene, 1,2-Dichloroethane, Ethyl Benzene and Toluene
    c. For "potential violations of discharge limitations" only, you need only analyze for the individual toxic organic chemical compounds that were above the gas/vapor toxic screening level.
    d. Take samples at times representative of normal operations

2. Refer to the enclosure for additional information on:

    a. Potential enforcement actions should noncompliance continue
    b. The meaning of the asterisks that appear in the Value Found column above
    c. Percentages applicable to Significant Noncompliance, when planning for additional sampling
    d. **As we discussed, after completing your corrective actions, please ensure that sufficient resamples (without additional violations) are collected before June 30 to avoid Significant Noncompliance.**

3. Submit your response no later than **July 06, 2012**.

Thank you for helping us to comply with state and federal regulations. If you have any questions, please contact me at 314.436. 8721.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Chris Bulmahn

Chris Bulmahn
Associate Engineer

Enclosures: SNC enclosure, SP map (pages 1 and 2)

cc: Doug Mendoza
Tom Boehm

REPUBLIC SERVICES

Mr. Chris Bulmahn
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

June 6, 2012

Dear Mr. Bulmahn:

Notification of Permitted Discharge Limitation,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-2

Per Leachate Discharge Permit No. 0511559802-2, and as a follow up to our telephone conversation today, Republic Services, Inc. is submitting this letter of Notification of Permitted Discharge Limitation for the Bridgeton Landfill, LLC leachate outfall 008. Leachate samples were collected from sampling point 008 on the dates of May 14-15, 2012 as an instant grab, or composite grab sample, dependent on constituent type, and in accordance with the permit.

Laboratory analytical results indicate that the detected level of Total Toxic Organics (TTO) for sampling point 008 exceeded the permitted limitation of 5.844 mg/L at the time of sample collection. Included with this letter is the analytical data report provided by Heritage Environmental Services, LLC of Indianapolis, IN.

At the time of sample collection the Bridgeton Landfill, LLC. was experiencing malfunctions in three leachate collection sump systems on-site which may have increased TTO effluent concentrations at outfall 008 due to a reduction in leachate flow rate to the outfall. The flow reduction may have caused stagnation resulting in higher than typical constituent concentrations. A resample of leachate from outfall 008 for TTO is scheduled to be conducted at the Bridgeton Landfill as soon as reasonably possible. Results obtained from this resample will be reported to the Metropolitan St. Louis Sewer District once they are available.

If you have any questions regarding the information provided in this letter, please contact me at your earliest convenience.

Sincerely,
REPUBLIC SERVICES, INC.

Bryan K. Sehie
Environmental Specialist

Attachments: *Heritage Environmental Services, LLC, Laboratory Analytical Report*

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13570 St. Charles Rock Road
Bridgeton, MO 63044

Telephone (314) 744-8190
Fax (314) 739-2588

HERITAGE
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Quality Assurance Report # 63070

Heritage Environmental Serivces, LLC

Commercial Laboratory Operations
7901 W. Morris St.
Indianapolis, IN 46231
(317)243-8304

Visit us at : www.heritage-enviro.com
Review your results at : www.accessheritage.com

Report To:

BRIDGETON LANDFILL

13570 St. Charles Rock Rd
Bridgeton, MO 63044

Attn : Brian Sehie

Submitter/Project Information

Submitter : MO-ALLIED-BRIDGETON LANDFILL
Project : LEACHATE - BRIDGETON LANDFILL

Christopher Boyle - Project Manager
chris.boyle@heritage-enviro.com
(317)390-3128

NELAP ACCREDITED TNI LABORATORY

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Sample Summary

COC ID# : 10590

COC Doc # : 01049316

Date/Time Sampled	Date Complete	LabSampleID	Client SampleID
05/15/2012 10:00:00	06/05/2012	A950242	LEACHATE OUTFALL 008

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GE SERVICES

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS
7901 W Morris St Indianapolis, IN 46231
www.heritage-enviro.com (800)827-4374 Fax:(317)486-5095

Attention: 10590
BOD Short Hold!

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MSD 024056

Submitter Name: MO-ALLIED-BRIDGETON LANDFILL (8945)
Project Name: LEACHATE - BRIDGETON LANDFILL (5586)
Z Quote No: Z140306
PO No: 4337-12001-9 (2012)
Heritage Contact CHRISTOPHER BOYLE (317)390-3128

Sample Turn Around Time
Standard: X Rush Date ___/___/___ Mo Day Yr
Accelerated TAT subject to Additional Charge.
Date must be Accepted and Approved by Lab.

Sampled By: Bryan Sehie / Republic Services

Analyses Requested (Note special detection limits or methods)

Comments: Hey Chris, what happened to the carbon copy COC's?
Composite Samples collected in 4 aliquots on 5-14-12 @ 1000, 1400, and 1830 and 5-15-12 @ 1000

Date Sampled	Time Sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample Type (Matrix): Water, Soil, Oil, Sludge, Swipe, Other	Number of Containers	PCB/PEST, SVL BNA WW	HEM(O&G)	COD, NH3	BOD, TSS	VOL	As, Cd, Cr, Cu, Hg, Ni, Pb, Zn	Remarks:	Lab use only Sample No.
See Comments	AM PM	X		Bridgeton Leachate Outfall 008	GW	4			1	2		1	Composite: See above for date/Time	A950242
5/15/12	1000 AM PM		X	Bridgeton Leachate Outfall 008	GW	10	4	2			4		KS>1/4" 3/4	
	AM PM													
	AM PM													
	AM PM													
	AM PM													
	AM PM													
	AM PM													
	AM PM													
	AM PM													

Relinquished by: (Signature) [signature] Date/Time 5/15/12 / 1200
Received by: (Signature) FedEx
Relinquished by: (Signature)
Received by: (Signature)
Relinquished by: (Signature)
Received for Lab by: (Signature) [signature]

Ref: Z140306 BRIDGETO Date: 25Apr12
Dep: Wgt: 45.00 LBS
Dv: 0.00
Svcs: STANDARD OVERNIGHT
TRCK: 9848 0970 2464

SHIPPING: 0.00
SPECIAL: 0.00
HANDLING: 0.00
TOTAL: 0.00

5/16/12 Time 0920
3.0 (5.6)°C Received On Ice Yes / No

Laboratory use only	Yes	No	NA
Custody seals intact on cooler?	✓		
C. seals intact on containers?			✓
Broken containers?		✓	
With sample labels?	✓		
Containers for testing?	✓		
Headspace issues acceptable?	✓		
Holding time(s) acceptable?	✓		
Preservative pH's acceptable?	✓		
Was pH left unadjusted?	✓		

Send Report To:
~~Co:~~ HERST AND ASSOCIATES
Addr: ~~4630 SOUTH HIGHWAY 94~~
~~ST. CHARLES, MO 63304~~
Attn: ~~JON WILKINSON~~ Bryan Sehie
Phone: ~~(636)939-9111~~ bsehie@republicservices.com
Fax: ~~(636)939-9757~~ 314-744-8190
email: ~~jwilkinson@herstassociates.com~~

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	16-MAY-12	A950242
	Completed	**PO Number**
	05-JUN-12	4337-12001-9 (2012)
	Printed	**Sampled**
	05-JUN-12	15-MAY-12 10:00

Report To	Bill To
BRIAN SEHIE BRIDGETON LANDFILL 13570 ST. CHARLES ROCK RD BRIDGETON, MO 63044	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: LEACHATE OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 63070
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: ANNUAL LEACHATE
PERMIT: 830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: C. HIPSKIND Analysis Date: 16-MAY-12 16:43 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	7030	200	mg/L

1:100 Dilution.

The CCV is biased low.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: E. SOTKIEWICZ Analysis Date: 29-MAY-12 16:30 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	9500	100	mg/L

1:10 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: C. ANYANWUTAKU Analysis Date: 21-MAY-12 14:00 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	660	1	mg/L

Filtered less sample due to sample matrix.

AMMONIA DISTILLATION SM4500-NH3 B - 1997

Analyst: T. DRIGGERS Analysis Date: 21-MAY-12 10:00 Instrument: PREP Test: P203.7.0

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Sample ID: A950242 LEACHATE OUTFALL 008

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	250		mL

The prep analyst decreased the initial weight/volume due to the matrix of the sample and/or a strong odor.

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D - 1997 NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 22-MAY-12 08:30 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM4500-NH3 B - 1997 P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	410	25	mg/L

1:50 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: S. BOXUM Analysis Date: 30-MAY-12 14:20 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	16.6	5.0	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: K. KAMARA Analysis Date: 24-MAY-12 09:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M403.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.36	0.010	mg/L

CADMIUM ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M408.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M410.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
CHROMIUM	0.070	0.010	mg/L

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Sample ID: A950242 LEACHATE OUTFALL 008

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

LEAD ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M416.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.010	mg/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	0.048	0.0050	mg/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 25-MAY-12 11:28 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	0.088	0.020	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 NELAC:Y

Analyst: S. O'NEAL Analysis Date: 30-MAY-12 08:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1 REV. 3.0 NELAC:Y

Analyst: S. O'NEAL Analysis Date: 31-MAY-12 09:05 Instrument: CVAA Test: M420.2.0

Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

Analyst: N. NUBANI Analysis Date: 16-MAY-12 Instrument: PREP Test: P243.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

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Sample ID: A950242 LEACHATE OUTFALL 008

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: J. MINNIEAR, II Analysis Date: 21-MAY-12 06:14 Instrument: GC/MS SVOA Test: O501.3.0

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
2,4,6-TRICHLOROPHENOL	BDL	500	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	500	ug/L
2-CHLOROPHENOL	BDL	500	ug/L
2,4-DICHLOROPHENOL	BDL	500	ug/L
2,4-DIMETHYLPHENOL	BDL	500	ug/L
2-NITROPHENOL	BDL	500	ug/L
4-NITROPHENOL	BDL	500	ug/L
2,4-DINITROPHENOL	BDL	1000	ug/L
4,6-DINITRO-O-CRESOL	BDL	500	ug/L
PENTACHLOROPHENOL	BDL	500	ug/L
PHENOL	EX	500	ug/L
ACENAPHTHENE	BDL	500	ug/L
BENZIDINE	BDL	1000	ug/L
1,2,4-TRICHLOROBENZENE	BDL	500	ug/L
HEXACHLOROBENZENE	BDL	500	ug/L
HEXACHLOROETHANE	BDL	500	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	500	ug/L
2-CHLORONAPHTHALENE	BDL	500	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	500	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	500	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	500	ug/L
3,3'-DICHLOROBENZIDINE	BDL	500	ug/L
2,4-DINITROTOLUENE	BDL	500	ug/L
2,6-DINITROTOLUENE	BDL	500	ug/L
FLUORANTHENE	BDL	500	ug/L
4-CHLOROPHENYL-PHENYLETHER	BDL	500	ug/L
4-BROMODIPHENYL ETHER	BDL	500	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	500	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	500	ug/L
HEXACHLOROBUTADIENE	BDL	500	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	500	ug/L
ISOPHORONE	BDL	500	ug/L
NAPHTHALENE	BDL	500	ug/L
NITROBENZENE	BDL	500	ug/L
N-NITROSODIMETHYLAMINE	BDL	500	ug/L
N-NITROSO-DIPROPYLAMINE	BDL	500	ug/L
N-NITROSODIPHENYLAMINE	BDL	500	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	500	ug/L

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Sample ID: A950242 LEACHATE OUTFALL 008

(BENZYLBUTYLPHTHALATE) BUTYLBENZYLPHTHALATE	BDL	500	ug/L
DI-N-BUTYLPHTHALATE	BDL	500	ug/L
DI-N-OCTYLPHTHALATE	BDL	500	ug/L
DIETHYLPHTHALATE	BDL	500	ug/L
DIMETHYLPHTHALATE	BDL	500	ug/L
BENZ(A)ANTHRACENE	BDL	500	ug/L
BENZO(A)PYRENE	BDL	500	ug/L
BENZO(B)FLUORANTHENE	BDL	500	ug/L
BENZO(K)FLUORANTHENE	BDL	500	ug/L
CHRYSENE	BDL	500	ug/L
ACENAPHTHYLENE	BDL	500	ug/L
ANTHRACENE	BDL	500	ug/L
BENZO(G,H,I)PERYLENE	BDL	500	ug/L
FLUORENE	BDL	500	ug/L
PHENANTHRENE	BDL	500	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	500	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	500	ug/L
PYRENE	BDL	500	ug/L
1,2-DIPHENYLHYDRAZINE	BDL	500	ug/L
2-METHYLPHENOL (O-CRESOL)	BDL	500	ug/L
3-METHYLPHENOL (M-CRESOL)	*	500	ug/L
4-METHYLPHENOL (P-CRESOL)	* 3100	500	ug/L
...			
SURROGATE RECOVERY			

2-FLUOROPHENOL	D		% Rec
PHENOL-D5	D		% Rec
NITROBENZENE-D5	D		% Rec
2-FLUOROBIPHENYL	D		% Rec
2,4,6-TRIBROMOPHENOL	D		% Rec
TERPHENYL-D14	D		% Rec

DUE TO LABORATORY INSTRUMENT CONSTRAINTS, BENZIDINE AND 2,4-DINITROPHENOL ARE REPORTED AT DETECTION LIMITS OF 1000 UG/L INSTEAD OF 500 UG/L

1:50 Dilution

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

NOTE: * 3-Methylphenol and 4-Methylphenol co-elute.

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Sample ID: A950242 LEACHATE OUTFALL 008

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: J. MINNIEAR, II Analysis Date: 21-MAY-12 15:32 Instrument: GC/MS SVOA Test: O501.3.1

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
PHENOL	7700	1000	ug/L
...			
SURROGATE RECOVERY			

2-FLUOROPHENOL	D		% Rec
PHENOL-D5	D		% Rec
NITROBENZENE-D5	D		% Rec
2-FLUOROBIPHENYL	D		% Rec
2,4,6-TRIBROMOPHENOL	D		% Rec
TERPHENYL-D14	D		% Rec

1:100 Dilution

Dilution necessary due to high concentration of target analytes.

VOLATILE PRIORITY POLLUTANTS EPA 624 NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 21-MAY-12 17:59 Instrument: GC/MS VOA Test: O502.3.0

Parameter	Result	Det. Limit	Units
ACROLEIN	BDL	500	ug/L
ACRYLONITRILE	BDL	700	ug/L
BENZENE	770	10	ug/L
BROMOFORM	BDL	10	ug/L
CARBON TETRACHLORIDE	BDL	10	ug/L
CHLOROBENZENE	72	10	ug/L
CHLOROETHANE	BDL	10	ug/L
2-CHLOROETHYLVINYLETHER	BDL	10	ug/L
CHLOROFORM	BDL	10	ug/L
DIBROMOCHLOROMETHANE	BDL	10	ug/L
BROMODICHLOROMETHANE	BDL	10	ug/L
1,1-DICHLOROETHANE	BDL	10	ug/L
1,2-DICHLOROETHANE	18	10	ug/L
1,1-DICHLOROETHENE	BDL	10	ug/L
1,2-DICHLOROPROPANE	BDL	10	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	10	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	10	ug/L
ETHYL BENZENE	130	10	ug/L
BROMOMETHANE	BDL	10	ug/L
CHLOROMETHANE	BDL	10	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	10	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	10	ug/L

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Sample ID: A950242 LEACHATE OUTFALL 008

TETRACHLOROETHENE	BDL	10	ug/L
TOLUENE	170	10	ug/L
1,2-DICHLOROETHENE (CIS AND TRANS)	BDL	10	ug/L
1,1,1-TRICHLOROETHANE	BDL	10	ug/L
1,1,2-TRICHLOROETHANE	BDL	10	ug/L
TRICHLOROETHENE	BDL	10	ug/L
TRICHLOROFLUOROMETHANE	BDL	10	ug/L
VINYL CHLORIDE	BDL	10	ug/L
2-BUTANONE	EX	20	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	100		% Rec
TOLUENE-D8	97		% Rec
4-BROMOFLUOROBENZENE	105		% Rec

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

Acrolein & Acrylonitrile reported only for screening purposes. Results should be considered estimated.

PH6

1:10 Dilution.

ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

Analyst: B. WOOD | Analysis Date: 17-MAY-12 | Instrument: PREP | Test: P223.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	10		mL

VOLATILE PRIORITY POLLUTANTS EPA 624 NELAC:Y

Analyst: H. WILLIAMS | Analysis Date: 24-MAY-12 17:40 | Instrument: GC/MS VOA | Test: O502.3.1

Parameter	Result	Det. Limit	Units
2-BUTANONE	20000	1000	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	100		% Rec
TOLUENE-D8	96		% Rec
4-BROMOFLUOROBENZENE	111		% Rec

1:100 Dilution.

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Sample ID: A950242 LEACHATE OUTFALL 008

Sample reanalyzed outside of holding time.

ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 NELAC:Y

Analyst: A. DUKES Analysis Date: 21-MAY-12 21:41 Instrument: GC/ECD Test: O305.0.0

Prep: ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608 P223.1.0

Parameter	Result	Det. Limit	Units
ALPHA-BHC	BDL	10	ug/L
BETA-BHC	BDL	10	ug/L
DELTA-BHC	BDL	10	ug/L
GAMMA-BHC (LINDANE)	BDL	10	ug/L
HEPTACHLOR	BDL	10	ug/L
ALDRIN	BDL	10	ug/L
HEPTACHLOR EPOXIDE	BDL	10	ug/L
ENDOSULFAN I	BDL	10	ug/L
DIELDRIN	BDL	10	ug/L
4,4'-DDE	BDL	10	ug/L
ENDRIN	BDL	10	ug/L
ENDOSULFAN II	BDL	10	ug/L
4,4'-DDD	BDL	10	ug/L
ENDOSULFAN SULFATE	BDL	10	ug/L
4,4'-DDT	BDL	10	ug/L
METHOXYCHLOR	BDL	10	ug/L
ENDRIN ALDEHYDE	BDL	10	ug/L
ALPHA-CHLORDANE	BDL	10	ug/L
GAMMA-CHLORDANE	BDL	10	ug/L
CHLORDANE	BDL	10	ug/L
TOXAPHENE	BDL	10	ug/L
PCB AROCLOR 1016	BDL	10	ug/L
PCB AROCLOR 1221	BDL	10	ug/L
PCB AROCLOR 1232	BDL	10	ug/L
PCB AROCLOR 1242	BDL	10	ug/L
PCB AROCLOR 1248	BDL	10	ug/L
PCB AROCLOR 1254	BDL	10	ug/L
PCB AROCLOR 1260	BDL	10	ug/L

SURROGATE RECOVERY			

DECACHLOROBIPHENYL (DCB)	41.4		% Rec

Matrix interference may mask low level analytes.

Sample Comments

* See Note for Parameter
BDL Below Detection Limit

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Sample ID: A950242 LEACHATE OUTFALL 008

Sample Comments

D Diluted sample
EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 3 C.
Sample chain of custody number 10590.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

Approved by: CHRISTINE SARKAN 05-JUN-12

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HERST & ASSOCIATES, INC.®

Global Presence
Personal Attention

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

April 25, 2012

Dear Mr. Rehmer:

First Quarter 2012 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-2

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the First Quarter 2012 leachate sampling and analysis report for the Bridgeton Landfill. On March 7, 2012 and March 8, 2012, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-2. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the First Quarter 2012 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for January, February, and March 2012.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Matt Stewart
Staff Geologist

For Ward E. Herst
Managing Partner

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4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-9757
Fax (636) 939-9757

Cc: *Bryan Sehie, Republic Services, Inc.*
John Haasis, St. Louis County Department of Health
Linda Wegrzyn, Missouri Department of Natural Resources

Attachments: *Attachment 1 – Metropolitan St. Louis Sewer District Industrial User Self Monitoring Reports*
Attachment 2 – Calculation of Discharged Activity
Attachment 3 – Heritage Environmental Laboratories, LLC, Laboratory Analytical Report
Attachment 4 – TestAmerica, Inc. Laboratory Analytical Report
Attachment 5 – Monthly Leachate Discharge Volume Records Provided by Bridgeton Landfill

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: 0511559802-2 Effective Date: 12/1/2010 Expiration Date: 11/30/2015

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☑ (JAN-MAR) ☐(APR-JUNE) ☐ (JULY-SEPT) ☐ (OCT-DEC)

Samples Collected By: **Bryan Sehie**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨		008						
DATES ON WHICH SAMPLES WERE COLLECTED ⇨		3/6/2012 and 3/7/2012						
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨		1400, 1900, 0900, 1400						
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW	***	E	39,681					GPD
Biochemical Oxygen Demand	***	C	5500					mg/L
Chemical Oxygen Demand	***	C	8800					mg/L
Oil and Grease	200	G	70.0					mg/L
pH Acidic (<7)	5.5	G	6.63					SU
pH Basic (≥7)	11.5	G						SU
Temperature	60	G	18.3					°C
Total Suspended Solids	***	C	170					mg/L
Ammonia (as N)	***	C	410					mg/L
Arsenic (Total)	0.4	C	NR					mg/L
Cadmium (Total)	0.7	C	NR					mg/L
Chromium (Total)	5.0	C	NR					mg/L
Copper (Total)	2.7	C	BDL					mg/L
Lead (Total)	0.4	C	NR					mg/L
Mercury (Total)	0.01	C	NR					mg/L
Nickel (Total)	2.3	C	0.043					mg/L
Zinc (Total)	3.0	C	0.120					mg/L
Total Toxic Organics	5.844	G	NR					mg/L
Gross Alpha	***	C	U					pCi/L
Gross Beta	***	C	183 ± 33					pCi/L
Gross Gamma (as Cesium-137)	***	C	U					pCi/L
Radium – 226	***	C	9.0 ± 3.8					pCi/L
Radium – 228	***	C	U					pCi/L
Uranium (Total)	***	C	BDL					µg/L

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Notes:
BDL = Below Detection Limit
U = Result is less than sample detection limit
NR = Not required during this monitoring event

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS.**

NONE

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below:
	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.
	Print or type name of signing official: **Bryan Sehie**
	Title: **Environmental Specialist** Telephone: **314-744-8190**
	Signature: Bryan K Sehie Date: 4/24/12

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

BS 4-26

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-2

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: [X] (Jan-Mar) [ ] (Apr-Jun) [ ] (July-Sept) [ ] (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	Not Applicable – Constituent Not Detected
Gross Beta	6.34×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	3.16×10^8
Radium - 228	Not Applicable – Constituent Not Detected
Total Activity Discharged :	6.66×10^9

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

[X] BKS I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: Bryan Sehie

Title: Environmental Specialist Telephone: 314-744-8190

Signature: Bryan K. Sehie Date:

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Christopher J. Bulmahn

From: Sehie, Bryan <BSehie@republicservices.com>
Sent: Friday, June 15, 2012 5:38 PM
To: Christopher J. Bulmahn
Cc: Vasbinder, David
Subject: Bridgeton Landfill Data Request - Discharge Permit No. 0511559802-2
Attachments: 03-22-12 Bridgeton - Heritage - March 2012 Leachate Analytical Report 62773.pdf; 03-29-12 Bridgeton - Test America - March 2012 Leachate Analytical Report F2C080411.pdf; 1Q12 Month Discharge Totals.pdf

Hello Chris,

Per your request I am sending you the first quarter 2012 Bridgeton leachate analytical data and leachate monthly discharge totals. Please let me know if I can assist you any further. Have a good weekend!

Thanks,

Bryan Sehie

Bryan Sehie | Environmental Specialist | Republic Services, Inc.

13570 St. Charles Rock Rd. | Bridgeton, MO 63044

☎ 314.744.8190 314.443.0179

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	08-MAR-12	A943275
	Completed	**PO Number**
	22-MAR-12	4337-12001-9 (2012)
	Printed	**Sampled**
	22-MAR-12	07-MAR-12 14:00

Report To	Bill To
JON WILKINSON HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 NORTH OUTER ROAD ST. CHARLES, MO 63304	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: LEACHATE OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 62773
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
PERMIT: 830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: C. HIPSKIND Analysis Date: 14-MAR-12 13:30 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	5500	200	mg/L

1:100 Dilution.

BOD reanalyzed outside of holding time due to concentrations beyond dilution range.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: E. SOTKIEWICZ Analysis Date: 15-MAR-12 17:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	8800	250	mg/L

1:25 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: C. ANYANWUTAKU Analysis Date: 09-MAR-12 15:00 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	170	1	mg/L

Filtered less sample due to sample matrix.

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Sample ID: A943275 LEACHATE OUTFALL 008

AMMONIA DISTILLATION SM4500-NH3 B 19TH ED.

Analyst: T. DRIGGERS | Analysis Date: 12-MAR-12 10:30 | Instrument: PREP | Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	250		mL

The prep analyst decreased the initial weight/volume due to the matrix of the sample and/or a strong odor.

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: T. DRIGGERS | Analysis Date: 13-MAR-12 10:00 | Test: G203.8.0

Prep: AMMONIA DISTILLATION SM4500-NH3 B 19TH ED. P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	410	25	mg/L

1:50 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: S. BOXUM | Analysis Date: 16-MAR-12 13:00 | Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	70.0	5.0	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: K. KAMARA | Analysis Date: 09-MAR-12 09:00 | Instrument: PREP | Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER | Analysis Date: 10-MAR-12 07:49 | Instrument: ICP | Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER | Analysis Date: 10-MAR-12 07:49 | Instrument: ICP | Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	43	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER | Analysis Date: 10-MAR-12 07:49 | Instrument: ICP | Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units

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Sample ID: A943275 LEACHATE OUTFALL 008

ZINC	120	20	ug/L

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B, 19TH ED. NELAC:Y

Analysis Date: 07-MAR-12 Instrument: FIELD Test: G607.2.0

Parameter	Result	Det. Limit	Units
PH	6.63	0.1	Std. Units

FIELD TEMPERATURE SM 2550 B, 19TH ED. NELAC:N

Analysis Date: 07-MAR-12 Instrument: FIELD Test: G603.1.0

Parameter	Result	Det. Limit	Units
TEMPERATURE	18.3		Degrees C

FIELD SPECIFIC CONDUCTANCE EPA 120.1 NELAC:Y

Analysis Date: 07-MAR-12 Instrument: FIELD Test: G604.1.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	12400	1.0	umHOS/cm

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .1 C.
Sample chain of custody number 082671.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

Approved by: CHRISTINE SARKAN 22-MAR-12

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MSD 024074

MSD 024075

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I-082671

01079213

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231
www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

Customer name/number: Allied Waste Systems Submitter # 8945
Project Name: Leachate - Bridgeton Landfill
Z Quote No: Z139877 (Given to you by your contact)
PO No. or Project/Activity ID: 4733-11001-8 (2011)
PRINT HERITAGE TSR NAME:

CUSTOMER STATUS: New / Existing
If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Bryan Sehie

Analyses Requested (Note special detection limits or methods)

Send Report To:
Co: Herst + Associates, Inc.
Add: 4631 N. St. Peters Pkwy.
St. Charles Mo 63304
Attn: Ward Herst
Phone: (636) 939-9111
Fax: (636) 939-9757
E-mail: labdata@herstassociates.com

Sample Turn Around Time
Standard: ✓ Rush Date ___ Mo Day Yr
(Accelerated TAT subject to Additional Charge)
Date must be accepted and approved by Lab

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix) DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z139877	Remarks:	Lab use only Sample No
see	AM PM		X	Leachate Outfall 008	GW	6	X	Samples are a composite	M43275
Remarks	AM PM							collected at the	
	AM PM							following times/Dates:	
→	AM PM							3-6-12 @ 1400	
	AM PM							3-6-12 @ 1900	
	AM PM							3-7-12 @ 0900	
	AM PM							3-7-12 @ 1400	
	AM PM							NOTE: 2 x 1L Clear	
	AM PM							glass w/HCL collected only	
	AM PM							@ 1400 on 3-7-12	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Bryan Sehie	3/7/12 1800	Fed Ex
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/	
Received by Lab by: (Signature)		Date 3/8/12 Temp. 0.1 (0.4) °C
		Time 0830 ROI: Yes / No

Laboratory use only	Yes	No
Custody seals present/intact?	✓	
Broken containers?		✓
COC agree with sample labels?	✓	
Correct containers for testing?	✓	
Headspace issues acceptable?	✓	
Holding time(s) acceptable?	✓	
Preservative pH's acceptable?	✓	
Was pH left unadjusted?	✓	

Comments: BOD (48 hr hold)

→ Tracking # 984809697290

Herst & Associates, Inc

Client Sample ID: LEACHATE POINT #008

TOTAL Metals

Lot-Sample #...: F2C080411-001 Matrix.....: WATER
Date Sampled...: 03/06/12 14:00 Date Received..: 03/07/12

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 2069018						
Uranium	ND	4.0	ug/L	MCAWW 200.8	03/09-03/21/12	MRAGP1AF
		Dilution Factor: 4		Analysis Time..: 20:31		

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Herst & Associates, Inc

Client Sample ID: LEACHATE POINT #008

Radiochemistry

Lab Sample ID: F2C080411-001
Work Order: MRAGP
Matrix: WATER

Date Collected: 03/06/12 1400
Date Received: 03/07/12 1445

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 2068106	Yld % 72
Radium 228	7.0	U	4.9	1.0	7.5	03/08/12	03/26/12
Gross Alpha/Beta EPA 900				pCi/L		Batch # 2073056	Yld %
Gross Alpha	38	U	30	3	40	03/13/12	03/18/12
Gross Beta	**183**		33	4	26	03/13/12	03/18/12
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 2068105	Yld % 82
Radium (226)	9.0		3.8	1.0	4.3	03/08/12	03/26/12
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 2069015	Yld %
Cesium 137	-0.5	U	7.3	20.0	13	03/09/12	03/09/12

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.
U Result is less than the sample detection limit.

F2C080411

Herst & Associates, Inc

Client Sample ID: LEACHATE POINT #008 DUP

Radiochemistry

Lab Sample ID: F2C080411-001X
Work Order: MRAGP
Matrix: WATER

Date Collected: 03/06/12 1400
Date Received: 03/07/12 1445

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 2068105	Yld % 84
Radium (226)	10.8		3.9	1.0	4.0	03/08/12	03/26/12
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 2068106	Yld % 74
Radium 228	8.9		5.1	1.0	7.5	03/08/12	03/26/12
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 2069015	Yld %
Cesium 137	0.0	U	4.5	20.0	8.7	03/09/12	03/09/12
Gross Alpha/Beta EPA 900				pCi/L		Batch # 2073056	Yld %
Gross Alpha	28	U	34	3	56	03/13/12	03/18/12
Gross Beta	170		32	4	27	03/13/12	03/18/12

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NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.
U Result is less than the sample detection limit.

F2C080411

Chain of Custody Record

TAL-4124 (1007)

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Client: Herst + Associates, Inc.	Project Manager: Matt Stewart	Date: 3/7/12	Chain of Custody Number: 191667
Address: 4631 N. St. Peters Pkwy	Telephone Number (Area Code)/Fax Number: 636-939-9111	Lab Number:	Page 1 of 1
City: St. Charles / State: MO / Zip Code: 63304	Site Contact:	Lab Contact:	
Project Name and Location (State): Bridgeton LF, Bridgeton, MO	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.: Allied Waste			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Gamma Cross A/B Ra 226-Ra 228 U	Special Instructions/ Conditions of Receipt
Leachate Point #008	3/6/12	1400		X					2				X	2 x 1G Poly Jug composite
↓	3/6/12	1900		X					↓				↓	
↓	3/7/12	0900		X					↓				↓	
↓	3/7/12	1400		X					↓				↓	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	3/7/12	1445	1. Received By: [signature]	3/7/12	1445
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica St. Louis

MSD 024079

2012

Bridgeton Landfill LLC
Monthly Leachate Outfall Report

4/20/2012 Filed in 15.4

Month	Precipitation inches	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	2.34	2/1/2012	4,472,356	144,270	597,908.56	5,979.09
February	1.99	2/29/2012	3,474,632	112,085	464,522.99	4,645.23
March	3.33	4/2/2012	1,343,131	43,327	179,562.97	1,795.63
April				0	0.00	0.00
May				0	0.00	0.00
June				0	0.00	0.00
July				0	0.00	0.00
August				0	0.00	0.00
September				0	0.00	0.00
October				0	0.00	0.00
November				0	0.00	0.00
December				0	0.00	0.00

RECEIVED
JUN 15 2012
DIVISION OF
ENVIRONMENTAL COMPLIANCE

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL FACILITY REINSPECTION REPORT

Company: Bridgeton Landfill LLC Account #: 0511559802
Premise Address: 13570 St Charles Rk Rd Zip Code: 63044
MSD Classes: SIU ☒ CIU ☐ Surch ☒ Potential Toxic Waste ☒ Non-Toxic Proc Waste ☐
No Process Flow ☐ Multi-User ☐ Special Handling/Billing ☒
Company Representative: Dave Vasbinder
Title: EHS Manager Phone#: 314.739.5099
Inspector: Tom Boehm
Others Present: Randy Meibaum - Environmental Tech
Inspection Date: 3/26/12 Time: From 09:00 am To 10:45 am (Last Insp. 3/29/11)

NOTE: ALL ITEMS ARE TO BE COMPLETED BASED ON EVENTS SINCE LAST INSPECTION. ANSWERS ARE BASED ON INFORMATION OBTAINED OR PROVIDED BY COMPANY DURING INSPECTION, AS WELL AS INFORMATION IN FILE.

***** DATABASE ALSO UPDATED WITH APPROPRIATE CHANGES - see attached database reports *****

1. A. ARE THERE ADDITIONAL NON-STORMWATER ACCOUNT NUMBERS? Yes☐ No☒
   List them, note any changes: _____
   B. Did all acct no's have water usage on PIMS? Yes☒ No☐
   C. If no to B, explain: _____

2. PROCESSES & CLEANUP/WASHDOWN:

	Cont/ Batch		Water Used?	Frequency of discharge	Sample pt.
Closed sanitary landfill operations- leachate discharged	Batch		Yes	Daily, Precipitation dependent	008,007> san sewer
Trash transfer station and associated washdown	Batch		Yes	Weekly	008,007> san sewer
	(None)		N/A		
	(None)		N/A		
	(None)		N/A		
	(None)		N/A		

3. PRETREATMENT (other than grease traps) - describe:

	Sample pt.
None (Equalization, course screening, aeration are no longer performed because they no longer generate good methane from the leachate); See comments;	

4. DOES COMPANY HAVE ANY GREASE TRAPS? Yes☐ No☒
If yes: A. List sample points: _____
B. What is the frequency for cleaning & maintenance? _____
C. Are any additives used in traps? Yes☐ No☐
D. If yes to C, was co. warned MSD will bill them for blockages they cause? Yes☐ No☐
E. Was co. informed that MSD performs separate grease trap inspections? Yes☐ No☐

5. HAS COMPANY CONSTRUCTED NEW BLDGS/ADDITIONS WITH SEWERS SINCE LAST INSP? Yes☐ No☒
If yes: A. Ask company: Did they notify MSD's Plan Review group? Unknown☐ Yes☐ No☐
B. If no or unknown, has inspector notified Plan Review group? Yes☐ No☐
C. Comments: _____

6. HAS COMPANY BEGUN DISCHARGING ANY NEW POLLUTANTS SINCE THE LAST INSP? Yes☐ No☒
If yes: A. List pollutants & process: _____
B. Will MSD STP exceed existing NPDES discharge limit(s)? Yes☐ No☐
C. Will MSD STP's discharge exceed 0.1 mg/l for any new pollutant? Yes☐ No☐
(MSD must notify MDNR if B or C is yes and discharge will continue.)
D. Comments: _____

7. ARE THERE ANY FEDERALLY REGULATED (40 CFR 405-471) OPERATIONS? Yes☐ No☒

If yes: A. List reg. & describe (including any discharge):

8. DOES CATEGORICAL WASTEWATER COMBINE WITH NON-CAT. WW PRIOR TO SAMPLING? Yes☐ No☒

If yes: A. At which points?

B. Current applied factor: Is it correct? Yes☐ No☐

C. If no, list correct factor/explain?

9. IS ANY WASTEWATER SUBJECT TO PRODUCTION OR MASS BASED STANDARDS? Yes☐ No☒

If yes: A. At which points?

B. Since calculation of the current limits, has the long term avg production rate or discharge volume changed by 20% or more? Yes☐ No☐

C. If yes to B, explain:

10. ARE ANY RADIOACTIVE MATERIALS HANDLED? Yes☒ No☐

If yes: A. Describe operations & disposal: 2 radiation waste cells are present in the landfill but they are not poly-lined, therefore no leachate is collected from these cells;

B. Does company have MSD authorization for disposal to sewer? NA☐ Yes☒ No☐

C. Most recent authorization date: 10/15/06

D. Amount discharged in most recent complete calendar year: Previous 4 quarters = 18.47mCi; see comments;

11. DOES PROCESS or P&E WASHDOWN WATER USE APPEAR EXCESSIVE? Yes☐ No☒

A. Explain how use was verified & any needed changes:
No excess usage noted;

12. BASED ON OBSERVATIONS DURING INSPECTION, DOES COMPANY APPEAR TO HAVE SOME WATER THAT IS NOT DISCHARGED TO SEWER? Yes☐ No☒

If yes: A. Describe:

B. Was "Return Factor Program" brochure given to company? Yes☒ No☐
(regardless of whether some water is not discharged to sewer)

13. HAS COMPANY EXCEEDED ORDINANCE DISCHARGE LIMITS SINCE LAST INSPECTION OR WITHIN THE LAST 12 MONTHS (if last insp <12 months ago)? Yes☐ No☒

If yes: A.

Pollutant	When	Sample Points	Is problem resolved? Y/N	Describe
			N/A	
			N/A	
			N/A	
			N/A	
			N/A	

B. Comments:

14. HAS COMPANY EXCEEDED CATEGORICAL PRETREATMENT LIMITS SINCE THE LAST INSPECTION OR WITHIN LAST 12 MONTHS (if last insp <12 months ago)? NA☒ Yes☐ No☐

If yes: A.

Pollutant	When	Sample Points	Is problem resolved? Y/N	Describe
			N/A	
			N/A	
			N/A	
			N/A	
			N/A	

B. Comments:

15. HAVE THERE BEEN ANY PROBLEM DISCHARGES SINCE LAST INSPECTION? Yes☐ No☒

If yes: A. Upsets? ☐ Bypasses of pretreatment facilities?☐
Spills? ☐ Slug discharges? ☐ Other? _____
B. Explain any marked: _____

16. COULD SPILLS OR LEAKS OF PROCESS TANKS, STORED WASTES, OR STORED CHEMICALS EASILY REACH SANITARY SEWERS OR STORM DRAINS? Yes☐ No☒

If yes: A. What needs to be done?
_____

If no: B. How are they controlled?
Diesel AST is contained; leachate AST no longer used; no other volumes of concern on site;

17. BASED ON OBSERVATIONS DURING INSPECTION, ARE THERE ANY AREAS WHERE COMPANY ACTIVITIES APPEAR TO IMPAIR STORMWATER RUNOFF? Yes☐ No☒

If yes: A. Describe: Runoff from grade is regulated via NPDES;
B. What needs to be done? _____
C. Was "Illicit Stormwater Discharges" brochure given to company? Yes☒ No☐
(regardless of whether there are any problem areas)

18. DOES COMPANY HAVE ANY SPILL CONTROL OR SLUG DISCHARGE CONTROL PLANS? Yes☒ No☐

If yes: A.

	Title	Last Update	Update needed? Explain if yes
1.	SPCCP	1/1/03	No
2.			N/A

B. Are any Plans needed (in addition to those listed in Part A)? Yes☐ No☒
(If yes, write company and request)

19. DOES COMPANY HAVE ANY MAINTENANCE SHOP PARTS WASHERS? Yes☒ No☐

If yes: A. Parts washer solvent name: Mineral spirits
B. Priority pollutants (or "none"): Typically BTEX
C. How is spent solvent disposed? Hauled - in maintenance garage that is rarely used;
(Parts washer solvents are not included in database's priority pollutants list, nor monitored for unless conditions show potential discharges)

20. ARE ANY ORGANICS OR SOLVENTS USED (OTHER THAN IN PARTS WASHERS)? Yes☒ No☐

If yes: A.

Solvent name/ components	Used for?	413/433/469 Process?	How disposed?	Priority Pollutant?
Diesel (500 gallon double wall AST) (BTEX and naphthalene)	Fuel	Yes☐ No☒	Burned as fuel	Yes☒ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐

21. DOES COMPANY HAVE A 413/433/469-REGULATORY "SOLVENT MANAGEMENT PLAN"? Yes☐ No☒
(only applies if company uses solvents in 413/433/469 processes)

If yes: A. Is it part of a Spill/Slug Control Plan listed above? Yes[1.☐ 2.☐] No☐
B. If no to A, date of last update for SMP: _____
C. Is there a copy of the Spill/Slug Plan or SMP in the files? Yes☐ No☐
D. Does SMP address all 413/433/469 solvents? Yes☐ No☐
(If no to C or D, write company and require submittal and/or update)

MSD 024083

22. ARE EMERGENCY NOTIFICATION PROCEDURES POSTED THAT INCLUDE MSD CONTACTS? Yes☐ No☒
A. Was company provided notification cards & told to post where emergency response personnel can locate them? Yes☒ No☐
(Must post if co. generates process wastewater or stores chemicals of concern)

23. IS COMPANY REQUIRED TO SELF-MONITOR ANY OF THEIR DISCHARGES? Yes☒ No☐
If yes: A. Is requirement contained in permit ☒ or other document ☐.
B. If other document, date & description: _____
C. How frequently is sampling required? Quarterly
D. How frequently are reports required? Quarterly
E. Have reports been on-time, complete & signed by proper person? Yes☒ No☐
F. If no, explain: _____

24. DOES COMPANY SELF-MONITOR ITS WASTEWATER DISCHARGE? Yes☒ No☐
If yes: A. Is the self-monitoring required by MSD? Yes☒ No☐
B. Does sample collection time period match co's production shifts? Yes☒ No☐
C. Are representative grab/comp samples collected? Yes☒ No☐
D. Are EPA-approved 40 CFR 136 wastewater test methods used? Yes☒ No☐
E. If no to B, C, or D, explain needed changes: 24 hour comps used for this potential 24 hour discharge; See comments;

25. DOES CO. CONTINUOUSLY MONITOR AT SAMPLE POINT AND KEEP A PERMANENT RECORD FOR: pH ☐, TEMP ☐, LEL ☐? Yes☐ No☒
If yes: A. At which SPs? _____
B. Does company submit quarterly summaries? Yes☐ No☐
C. If no, explain: _____

26. DOES MSD SPLIT SAMPLES WITH THE COMPANY? Yes☐ No☒
If yes: A. Is company having the samples analyzed Yes☐ No☐
B. How does company insure proper preservation, holding times & analytical methods?
_____
C. Has company submitted results of all split sample analyses since the last insp? Yes☐ No☐
D. Have results been submitted within 28 days of the collection's calendar quarter? Yes☐ No☐
E. If no to C, or D, explain: _____
F. Does company still want to split samples? Yes☐ No☐
G. Comments: _____

27. IS COMPANY UNDER ANY ENVIRONMENTAL ENFORCEMENT ORDERS OR REQUIREMENTS TO SUBMIT COMPLIANCE SCHEDULE REPORTS? Yes☐ No☒
If yes: A. Type and date: _____
B. Have the reports & actions been on-time & complete? Yes☐ No☐
C. If no, explain: _____

28. ASK COMPANY: IS CO. IN COMPLIANCE W/APPLICABLE NESHAP REGS FOR WW DISCHARGES? Yes☒ No☐
[Some MDNR-issued Title V air permits for specific processes allow pre-approved WW discharge.] [City/County-issued air permits are not NESHAP permits.]
If no: A. Describe: _____
B. Was MDNR Air Pollution Control informed? (must be done) Yes☐ No☐

29. DOES COMPANY RETAIN ALL WASTEWATER RECORDS FOR AT LEAST 5 YEARS? Yes☒ No☐
If no: A. How long does company retain records? _____
B. Was company told to retain for at least 5 years, per ordinance? Yes☐ No☐
C. Where are they kept? In contact's office;

30. DO MSD CLASSIFICATIONS NEED TO BE REVISED? Yes☐ No☒
If yes: A. Indicate correct classifications:
SIU ☐ CIU ☐ Surch. ☐ Potential Toxic Waste ☐ Non-Toxic Proc Waste ☐
No Process Discharge ☐ Multi-User ☐ Special Handling/Billing ☐
B. Explain changes: _____

31. IS COMPANY CLASSIFIED AS "Multi-User"? Yes☐ No☒

If yes: A. Is company's discharge segregated from other tenants' discharge? Yes☐ No☐

B. If no to A, does the company own the bldg/receive the MSD bills? Yes☐ No☐

C. If yes to B, was company informed it is responsible for total discharge, or else must provide segregated sample points? Yes☐ No☐

D. If no to B, are any Process/P&E Wash-type wastes discharged? Yes☐ No☐

E. If yes to D, are the wastes completely innocuous? Yes☐ No☐
(Explain why: _____)

F. If yes to D, and no to E, company must accept responsibility or provide segregated SP. Acceptance letter date: _____ Or write co. w/requirement ☐

G. If no to D or yes to E, are limits "alert only" on PIMS? Yes☐ No☐

H. Comments: _____

32. IS COMPANY CLASSIFIED AS "Special Handling/Billing"? Yes☒ No☐

If yes: A. Why? Billing is based upon the amount of leachate generated in the landfill;

B. Are any changes needed to reasons/details? Yes☐ No☒

C. If yes, explain: _____

D. Were company records reviewed & verified for special handling/billing reports? NA☐ Yes☒ No☐

33. SAMPLE POINTS

						DJ(y/n)
SP #	008	Fed.Reg.		Components:	Leachate, P+E washdown of transfer station	No
SP #	007	Fed.Reg.		Components:	Same as 008	No
SP #		Fed.Reg.		Components:		N/A
SP #		Fed.Reg.		Components:		N/A
SP #		Fed.Reg.		Components:		N/A

34. ARE ANY SAMPLE POINTS TRAPPED VENTS? Yes☐ No☒

If yes: A. List SPs: _____

B. Was co. informed that T-vents are preferred, and told why? Yes☐ No☐

35. ARE DISCHARGES AT ANY SPs SMALL/IRREGULAR ENOUGH TO ALLOW GRAB SAMPLES? Yes☐ No☒

If yes: A. List SPs and reasons: _____

36. ARE THERE ANY UNSAMPLED DISCHARGES? (list each lateral separately) Yes☐ No☒

Dummy SP #		Components:	Sanitary from the numerous tenants is collected for hauling;
Dummy SP #		Components:	

37. DO ANY SAMPLE POINTS (including Unsampled/Dummy SPs) RECEIVE STORMWATER? Yes☒ No☐

If yes: A. List Sample Points: Yes, indirectly through leachate collected under the landfill;

38. WERE ALL SAMPLE POINTS (except Dummy SPs) OPENED & INSPECTED? No SPs☐ Yes☒ No☐

A. If any SPs cannot be located or opened, explain: _____

B. If any SP descript's need to be changed, explain: _____

C. Was ANY grease or other problem/debris observed in any SP? Yes☐ No☒

D. If yes to C, list SPs & describe: SP is a flex hose off an 8" pipe;

E. If yes to C, was company directed to take corrective actions? Yes☐ No☐

39. REVIEW THE SAMPLE POINT MAP! Last map revision date: 1/27/09

A. Is the map correct and accurate in all its details? Yes☒ No☐

B If no, what changes are needed: _____

40. DO INSTRUCTIONS FOR "Contact Prior to Sampling" OR FIELD VISIT "Special Instructions" NEED REVISION? Yes☐ No☒

If yes: A. List needed changes: _____

USE THIS SPACE FOR ANY OTHER COMMENTS/OBSERVATIONS PERTINENT TO YOUR INSPECTION OF THIS SITE.

- As stated in the previous inspection, MoDNR management and company management do not agree on how to cover the radioactive waste cells;
- Others that rent space at this site use holding tanks to collect waste;
- Since the pretreatment tank is no longer used, they proposed putting a sample port in a vault that contains the piping system located ~ 25' NW of the existing tank (and SP008) but because it is a permitted confined space they are looking at other options and will continue to charge the tank in order to get their quarterly samples;
- A question about the presence of radioactivity on the Self Monitoring Reports came up; I called our contact who explained the results are close to drinking water standards; the issue comes up time to time, but they have had no regulatory problems due to it; they believe it is present due to the waste that was put there prior to any kind of solid waste regulations;

MSD 024086

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL DATA SHEET - FACILITY INFORMATION

INDUSTRY NAME **BRIDGETON LANDFILL LLC**
PRIMARY MSD ACCOUNT NO. **0511559802**

Premise Address 13570 St. Charles Rock Road
Bridgeton MO. 63044

INDUSTRIAL USER CLASSIFICATIONS

03/06/1997	SIU
05/17/2007	SURC
03/06/1997	TOX
01/19/2006	SPEC

WUNNENBERG INFO.

Base Map 10O3
Wun: St. Louis City & Co.
Grid: W 09 Page 7

SIU CRITERIA

PR25 Process Disch => 25,000 GPD

GENERAL INFORMATION

Office Mailing Address
13570 St. Charles Rock Road
Bridgeton, MO. 63044

Billing Address
13570 St. Charles Rock Road
Bridgeton, MO. 63044

INSPECTION INFORMATION

Next Due	Insp Rslt	
03/26/2012	RIN	Tom Boehm

PERMIT INFORMATION

Issue Date: 12/01/2010
Expire Date: 11/30/2015
Extended Date:
Writer Mark Montague

IUQ INFORMATION

IUQ Recvd Date: 06/12/2000
Reviewer: Fabian Grabski
IUQ Recvd Date: 06/06/2005
Reviewer: Martin Blecha
IUQ Recvd Date: 04/27/2010
Reviewer: Tom Boehm

CONTACTS

BILL	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext.
FLD1	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext.
	David Vasbinder	Environmental Manager	CELL	(314) 249-9404 Ext.
FLD2	Randy Meibaum	Operations/Environmental Tech	OFF	(314) 739-5099 Ext.
	Randy Meibaum	Operations/Environmental Tech	CELL	(314) 393-2613 Ext.
OFF1	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext.
	David Vasbinder	Environmental Manager	CELL	(314) 249-9404 Ext.
OFF2	Randy Meibaum	Operations/Environmental Tech	OFF	(314) 739-5099 Ext.
	Randy Meibaum	Operations/Environmental Tech	CELL	(314) 393-2613 Ext.

OPERATIONAL INFORMATION

Work Days: 5

				S	M	T	W	T	F	S
1	2	06:00AM	10.0	N	Y	Y	Y	Y	Y	N
2	0	00:00AM		N	N	N	N	N	N	N
3	0			N	N	N	N	N	N	N

Total Emp: 2 **Hrs:** 10.0

OTHER AGENCIES INFORMATION

11/28/1996	MDNR - Hazardous Waste Program	00925
06/29/1997	MDNR - Water Pollution Control Program	MO-0112771
06/30/1997	EPA - Hazardous Waste Program	MO-D980741805
09/28/2005	MSD - Billing Account Number	00039145

NON-SEWERED WASTE

On-Site Storage	On-Site Disposal	Off-Site Disposal

COMMENTS

RAW MATERIALS

EFF DATE	MATERIAL_DESCRIPTION	QUANTITY	UNIT

SIC INFORMATION

SIC	DESCRIPTION
4953	Refuse Systems

PRODUCTS

EFF DATE	DESCRIPTION	UNIT	AVG_PROD	MAX_PROD
05/07/2004	Closed lanfill			

Report No. PIMS012A 04/10/2012 9:55:41 am
Data Date & Time: 04/10/2012 9:55:41 am

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL DATA SHEET - FACILITY INFORMATION

INDUSTRY NAME **BRIDGETON LANDFILL LLC**
PRIMARY MSD ACCOUNT NO. **0511559802**

Premise Address 13570 St. Charles Rock Road
Bridgeton MO. 63044

SEWER ACCOUNTS

Sewer Accounts
0511559802

WATER CONSUMPTION AND WASTEWATER DISCHARGE

Start Date = 01/01/2011 12:00:00AM **End Date =** 12/31/2012 12:59:59PM **Wdays** **Cdays**

Acct. No.			Consumption					Discharge	
0511559802			**CCF's**	**Gallons**				**Gal/ Wday**	**Gal/ Cday**
0511559802	12/11/2010	01/12/2011	219	219	A	24	33	33	
0511559802	01/13/2011	02/10/2011	194	413		21	29	62	
0511559802	02/11/2011	03/10/2011	183	596		20	28	90	
0511559802	03/11/2011	04/12/2011	209	805		24	33	123	
0511559802	04/13/2011	05/11/2011	179	984		21	29	152	
0511559802	05/12/2011	06/10/2011	234	1,218		21	30	182	
0511559802	06/11/2011	07/13/2011	256	1,474		24	33	215	
0511559802	07/14/2011	08/10/2011	181	1,655		20	28	243	
0511559802	08/11/2011	09/13/2011	251	1,906		24	34	277	
0511559802	09/14/2011	10/12/2011	243	2,149		21	29	306	
0511559802	10/13/2011	11/10/2011	253	2,402		21	29	335	
0511559802	11/11/2011	12/12/2011	306	2,708		23	32	367	
RF	1.00	**Acct. Total**	2,708	2,025,725		264	367	7,673	5,520
		Facility Total	2,708						

CONNECTION and SAMPLE POINT INFORMATION

LATERAL NO.	**Lateral Type**	**DSMH**	**Treatment Area**	Missouri River
01	Sanitary Or Combined	10O3 014S	**Trunk Sewer**	Bonfils Pump Station

Description Leachate Pump Vault SW to MSD Westlink Pump Station

Sewer Route S to Westlink Pump Station # 811, S to Bonfils Trunk to FM East to POTW

SAMPLE POINT NO. 007 Ordinance **NPDES Outfall No.**

Description 14" pipe into Westlink Pump Station Wetwell, on S side

Discharge Components	**Process Description**	**Avg Flow**	**Unit**	**Max Flow**	**Unit**	**RUD**	**Effective Date**
Plant & Equipment Wash	Transfer station	2,000	Gal/Wk	2,000	Gal/Wk	D	4/28/10
Landfill Leachate	Same waste that flows through SP008	215,969	GPD		GPD	D	4/28/10
	Total Flow Avg =	**217,969**		**Max =**	**2,000**		

SAMPLE POINT NO. 008 Ordinance **NPDES Outfall No.**

Description 1/2" flexible sampling hose 5' above grade off of an 8" discharge pipe on N side of AST

Discharge Components	**Process Description**	**Avg Flow**	**Unit**	**Max Flow**	**Unit**	**RUD**	**Effective Date**
Plant & Equipment Wash	Transfer Station	2,000	Gal/Wk	2,000	Gal/Wk	D	4/28/10
Landfill Leachate		215,696	GPD		GPD	D	4/28/10
	Total Flow Avg =	**217,696**		**Max =**	**2,000**		

PRETREATMENT TYPES

SP	EFF_DATE	TYPE	DESCRIPTION

PRIORITY POLLUTANTS

Pollutant Description	Status	Pollutant Description	Status	Pollutant Description	Status
Cyanide (Total)	SP	Asbestos (Fibrous)	SP	Antimony (Total)	SP
Silver (Total)	SP	Selenium (Total)	SP	Copper (Total)	KP
Cadmium (Total)	SP	Beryllium (Total)	SP	Zinc (Total)	KP
Thallium (Total)	SP	Nickel (Total)	KP	Mercury (Total)	SP
Lead (Total)	KP	Chromium (Total)	KP	Arsenic (Total)	KP
Toluene	SP	Chlorobenzene	KP	Naphthalene	KP
Ethylbenzene	KP				

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL DATA SHEET - FACILITY INFORMATION

INDUSTRY NAME **BRIDGETON LANDFILL LLC**
PRIMARY MSD ACCOUNT NO. **0511559802**

Premise Address 13570 St. Charles Rock Road
Bridgeton MO. 63044

EXTRA STRENGTH SURCHARGE INFORMATION

07/05/2011	BOD	312
07/05/2011	COD	953
07/05/2011	TSS	65

PIMS FACILITY CONTACTS

For Account Number Selected **0511559802** **BRIDGETON LANDFILL LLC**
Located at 13570 St. Charles Rock Road
Bridgeton MO 63044

Address Type

Contact Type	Contact Name		Contact Title	Phone Type	Number	Ext.
Billing Address						
Billing Contact	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	
Office Mailing Address						
Office Contact - Primary	David	Vasbinder	Environmental Manager	CELL	(314)249-9404	
Office Contact - Primary	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	
Office Contact 1st Alt	Randy	Meibaum	Operations/Environmental Tech	CELL	(314)393-2613	
Office Contact 1st Alt	Randy	Meibaum	Operations/Environmental Tech	OFF	(314)739-5099	
Premise Address						
Field Contact - Primary	David	Vasbinder	Environmental Manager	CELL	(314)249-9404	
Field Contact - Primary	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	
Field Contact 1st Alt	Randy	Meibaum	Operations/Environmental Tech	CELL	(314)393-2613	
Field Contact 1st Alt	Randy	Meibaum	Operations/Environmental Tech	OFF	(314)739-5099	

PIMS
REPORT OF FIELD SAMPLING REQUIREMENTS
BRIDGETON LANDFILL LLC

Account No Entered **0511559802**

SPN	PREMISE ADDRESS	CITY	ST	ZIP
	13570 St. Charles Rock Road	Bridgeton	MO	63044

007 Project Code: IM = IPD - Company - MSD

Pollutant Group	Poll Code	Pollutant Description	Frequency	Sample Type	End Date
	T205000	Ammonia (as N)	Once/3 mo	Grab	06/30/2012
	T208000	Biochemical Oxygen Demand (5 Day)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T213000	Chemical Oxygen Demand	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T234000	Oil and Grease (Total)	Once/3 mo	Grab	06/30/2012
	T237000	pH	Once/3 mo	Grab	06/30/2012
	T247000	Temperature	Once/3 mo	Grab	06/30/2012
	T256000	Total Suspended Solids	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T257000	Total Phenols	Once/3 mo	Grab	06/30/2012
	T304000	Antimony (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T306000	Arsenic (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T317000	Beryllium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T327000	Cadmium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T335000	Chromium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T339000	Copper (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T340000	Cyanide Amenable to Chlorination	Once/3 mo	Grab	06/30/2012
	T368000	Lead (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T370000	Mercury (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T377000	Nickel (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T391000	Selenium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T393000	Silver (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T396000	Thallium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
	T403000	Zinc (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2012
Phenolic Organics - Acids	T991000	Phenolic Organics - Acids	Once/3 mo	Grab	06/30/2012
PCBs	T992000	PCBs	Once/year	Comp-Time 04 Hrs	03/31/2013
Semi-Volatile Organics - Base/Neutrals	T994000	Semi-Volatile Organics - Base/Neutrals	Once/year	Comp-Time 04 Hrs	03/31/2013
Volatile Organics	T996000	Volatile Organics	Once/year	Grab	03/31/2013

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Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

Spec Handl
CB 3-12

January 25, 2012

Dear Mr. Rehmer:

Fourth Quarter 2011 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-2

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the Fourth Quarter 2011 leachate sampling and analysis report for the Bridgeton Landfill. On November 28, 2011 and November 29, 2011, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-2. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Fourth Quarter 2011 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for October, November, and December 2011.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Matt Stewart
Staff Geologist

Ward E. Herst
Managing Partner

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4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-9700
Fax (636) 939-9757

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: 0511559802-2 Effective Date: 12/1/2010 Expiration Date: 11/30/2015

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (JAN-MAR) ☐(APR-JUNE) ☐ (JULY-SEPT) ☑ (OCT-DEC)

Samples Collected By: **Kate Whitener**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨		008						
DATES ON WHICH SAMPLES WERE COLLECTED ⇨		11/28/2011 and 11/29/2011						
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨		1230, 1630, 0800, 1200						
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW	***	E	171,877					GPD
Biochemical Oxygen Demand	***	C	490					mg/L
Chemical Oxygen Demand	***	C	1900					mg/L
Oil and Grease	200	G	BDL					mg/L
pH Acidic (<7)	5.5	G						SU
pH Basic (≥7)	11.5	G	7.40					SU
Temperature	60	G	12.8					°C
Total Suspended Solids	***	C	61					mg/L
Ammonia (as N)	***	C	270					mg/L
Arsenic (Total)	0.4	C	NR					mg/L
Cadmium (Total)	0.7	C	NR					mg/L
Chromium (Total)	5.0	C	NR					mg/L
Copper (Total)	2.7	C	BDL					mg/L
Lead (Total)	0.4	C	NR					mg/L
Mercury (Total)	0.01	C	NR					mg/L
Nickel (Total)	2.3	C	0.042					mg/L
Zinc (Total)	3.0	C	0.160					mg/L
Total Toxic Organics	5.844	G	NR					mg/L
Gross Alpha	***	C	21 ± 15					pCi/L
Gross Beta	***	C	72 ± 14					pCi/L
Gross Gamma (as Cesium-137)	***	C	U					pCi/L
Radium – 226	***	C	5.16 ± 0.77					pCi/L
Radium – 228	***	C	1.13 ± 0.51					pCi/L
Uranium (Total)	***	C	BDL					µg/L

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Notes:
BDL = Below Detection Limit
U = Result is less than sample detection limit
NR = Not required during this monitoring event

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS**.

NONE

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below:
	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.
	Print or type name of signing official: **David Vasbinder**
	Title: **Environmental Manager** Telephone: **314-744-8166**
	Signature: Date: 1/25/2012

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-2

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☐ (Apr-Jun) ☐ (July-Sept) ☒ (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	1.16×10^9
Gross Beta	3.99×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	2.85×10^8
Radium - 228	6.26×10^7
Total Activity Discharged :	5.50×10^9

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. **Certification of Compliance with Federal regulations**

☒ I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. **Radioactive Materials Discharge Report Certification**

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager

Telephone: 314-744-8166

Signature:

Date: 1/25/2012

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.B.2 of the Bridgeton Landfill MSD Permit (Permit 0511559802-2), each quarterly discharge report shall specify the activity discharged to the sewer system by radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Fourth Quarter 2011 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\text{Discharged Activity} = \text{Activity Concentration} \times \text{Discharged Volume}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Fourth Quarter 2011 monitoring period.

Constituent	Result	Units
Gross Alpha	21 ± 15	pCi/L
Gross Beta	72 ± 14	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	5.16 ± 0.77	pCi/L
Radium – 228	1.13 ± 0.51	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Fourth Quarter 2011 monitoring period:

- October 2011: 4,495,299 gallons
- November 2011: 4,128,999 gallons
- December 2011: 5,673,523 gallons

Summation of the monthly volumes provides the total volume discharged during the Fourth Quarter 2011 period:

$$4{,}495{,}299\ gal + 4{,}128{,}999\ gal + 5{,}673{,}523\ gal = 14{,}297{,}821\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-0510
Fax (636) 939-8777

$$14{,}297{,}821\ gal \times \frac{3.785\ L}{gal} = 55{,}404{,}056\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Alpha, multiply the activity concentration by the discharged volume:

$$\frac{21\ pCi}{L} \times 55{,}404{,}056\ L = 1.16 \times 10^{9}\ pCi$$

Similarly, for Gross Beta:

$$\frac{72\ pCi}{L} \times 55{,}404{,}056\ L = 3.99 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{5.16\ pCi}{L} \times 55{,}404{,}056\ L = 2.85 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{1.13\ pCi}{L} \times 55{,}404{,}056\ L = 6.26 \times 10^{7}\ pCi$$

Summation of the four (4) results yields the total discharged activity for the Fourth Quarter 2011 reporting period:

$$1.16 \times 10^{9}\ pCi + 3.99 \times 10^{9}\ pCi + 2.85 \times 10^{8}\ pCi + 6.26 \times 10^{7}\ pCi = 5.50 \times 10^{9}\ pCi$$

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MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F1K290445 **Matrix.....:** WATER
Date Sampled...: 11/29/11 12:00 **Date Received..:** 11/29/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F1K290445-001 **Prep Batch #...:** 1340036							
Uranium	109	(70 - 130)			MCAWW 200.8	12/06-12/08/11	MPAX91AK
	111	(70 - 130)	2.0	(0-20)	MCAWW 200.8	12/06-12/08/11	MPAX91AL
		Dilution Factor: 5					
		Analysis Time..: 19:41					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

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Herst & Associates, Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F1K290445-001
Work Order: MPAX9
Matrix: WATER

Date Collected: 11/29/11 1200
Date Received: 11/29/11 1235

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 1333207	Yld % 82
Radium 228	1.13		0.51	1.00	0.70	11/29/11	12/15/11
Gross Alpha/Beta EPA 900				pCi/L		Batch # 1346079	Yld %
Gross Alpha	21		15	3	20	12/12/11	12/16/11
Gross Beta	72		14	4	12	12/12/11	12/16/11
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 1333206	Yld % 92
Radium (226)	5.16		0.77	1.00	0.33	11/29/11	12/16/11
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 1335033	Yld %
Cesium 137	-1.1	U	6.8	20.0	13	12/01/11	12/01/11

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

SAMPLE SUMMARY

F1K290445

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
MPAX9	001	OUTFALL 008	11/29/11	12:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

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Herst & Associates, Inc

Client Sample ID: OUTFALL 008

TOTAL Metals

Lot-Sample #...: F1K290445-001 **Matrix.....:** WATER
Date Sampled...: 11/29/11 12:00 **Date Received..:** 11/29/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1340036						
Uranium	ND	5.0	ug/L	MCAWW 200.8	12/06-12/08/11	MPAX91AF
		Dilution Factor: 5		Analysis Time..: 19:28		

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Quality Assurance Report Package # 62465

HERST AND ASSOCIATES

JON WILKINSON
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Project : MO-ALLIED-BRIDGETON LANDFILL
LEACHATE - BRIDGETON LANDFILL

Sampled : 29-NOV-11

Sample Range : A935811

Approved by: CHRISTOPHER BOYLE - Project Manager

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 West Morris Street
Indianapolis, Indiana 46231
Phone: (317) 243-8304
Fax : (317) 486-5095

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01076414

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231
www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I-078231

1 of 1

Customer name/number: Allied Waste Systems Submitter # 8945
Project Name: 3Q11 Budgeton LF - Leachate
Z Quote No: Z139877 (Given to you by your contact)
PO No. or Project/Activity ID: 4733-11001-8 (2011)
PRINT HERITAGE TSR NAME: ——

CUSTOMER STATUS: New / Existing
If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Kate Whitener &

Analyses Requested (Note special detection limits or methods)

Send Report To:
Co: Herst & Associates Inc.
Add: 4631 N St. Peters Parkway
St. Charles, MO 63304
Attn: Ward Herst
Phone: (636) 939-9111
Fax: (636) 939-9757
E-mail: landata@herstassociates.com

Sample Turn Around Time
Standard: X Rush Date / / (Mo Day Yr)
(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z139877	Remarks:	Lab use only Sample No.
11/28 11/29	1230, 1630 AM 0800, 1200 PM	X		Outfall 008	L	4	X	1 = Leachate	A935811
11/29/11	1200 AM PM		X	Outfall 008	L	2	X		
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Kate Whitener	11/29/11 1330	FedEx #984809691306
Relinquished by: (Signature)	Date/Time /	Received by: (Signature)
Relinquished by: (Signature)	Date/Time /	Received by: (Signature)
Received for Lab by: (Signature)	Date 11/29/11 Time 0850	Temp. 0.1 °C (0.4) ROI: Yes / No

Laboratory use only	Yes	No
Custody seals present/intact?	–	
Broken containers?		–
COC agree with sample labels?	–	
Correct containers for testing?	–	
Headspace issues acceptable?	–	
Holding time(s) acceptable?	–	
Preservative pH's acceptable?	–	
Was pH left unadjusted?	–	

Comments: *SHORT HOLD*
11/28/11 1230, 1630
11/29/11 0800, 1200
11/29/11 @ 1200
pH = 7.40
Cond = 5020
turb = 43.4
temp = 12.8

MSD 024103

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ENVIRONMENTAL SERVICES

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	30-NOV-11	A935811
	Completed	**PO Number**
	09-DEC-11	4733-11001-8 (2011)
	Printed	**Sampled**
	09-DEC-11	29-NOV-11 12:00

Report To	Bill To
JON WILKINSON HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 NORTH OUTER ROAD ST. CHARLES, MO 63304	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 62465
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
PERMIT: 830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: C. HIPSKIND Analysis Date: 01-DEC-11 11:15 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	490	20	mg/L

1:10 Dilution.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: E. SOTKIEWICZ Analysis Date: 05-DEC-11 16:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	1900	50	mg/L

1:5 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: T. SHAIKH Analysis Date: 30-NOV-11 17:00 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	61	1	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: T. DRIGGERS Analysis Date: 06-DEC-11 08:00 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL

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Sample ID: A935811 OUTFALL 008

FINAL VOLUME	250		mL

The prep analyst decreased the initial weight/volume due to the matrix of the sample and/or a strong odor.

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 08-DEC-11 11:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	270	25	mg/L

1:50 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: S. BOXUM Analysis Date: 06-DEC-11 13:00 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	BDL	5.0	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: K. KAMARA Analysis Date: 02-DEC-11 09:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 03-DEC-11 07:38 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 03-DEC-11 07:38 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	42	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 03-DEC-11 07:38 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	160	20	ug/L

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Sample ID: A935811 OUTFALL 008

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B, 19TH ED.			NELAC:Y
	Analysis Date: 29-NOV-11	Instrument: FIELD	Test: G607.2.0
Parameter	Result	Det. Limit	Units
PH	7.40	0.1	Std. Units

FIELD TEMPERATURE SM 2550 B, 19TH ED.			NELAC:N
	Analysis Date: 29-NOV-11	Instrument: FIELD	Test: G603.1.0
Parameter	Result	Det. Limit	Units
TEMPERATURE	12.8		Degrees C

FIELD SPECIFIC CONDUCTANCE EPA 120.1			NELAC:Y
	Analysis Date: 29-NOV-11	Instrument: FIELD	Test: G604.1.0
Parameter	Result	Det. Limit	Units
CONDUCTIVITY	5020	1.0	umHOS/cm

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .1 C.
Sample chain of custody number 078231.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

Approved by: CHRISTINE SARKAN 09-DEC-11

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Quality Assurance Report

62465

09-DEC-11

Service Location	Submitter
Heritage Environmental Services, LLC Commercial Laboratory Operations 7901 West Morris Street Indianapolis, IN 46231 (317) 243-8304	JON WILKINSON HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 ST. CHARLES, MO 63304

Sample ID	Client ID	Date/Time Sampled	Date Received	Date Released
A935811	OUTFALL 008.....	29-Nov-11 12:00	30-Nov-11	09-Dec-2011

DESCRIPTION : QUARTERLY LEACHATE
LOCATION : BRIDGETON LANDFILL
PERMIT : 830871

2011

Bridgeton Landfill LLC
Monthly Leachate Outfall Report

1/23/2012 Filed in 15.4

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	2/4/2011	4,712,812	152,026	630,055.08	6,300.55
February	2/28/2011	4,496,670	159,570	661,319.52	6,613.20
March	4/1/2011	4,826,686	155,700	645,278.88	6,452.79
April	5/2/2011	2,986,384	96,335	399,249.20	3,992.49
May	5/31/2011	4,548,265	146,718	608,056.82	6,080.57
June	7/1/2011	5,058,996	163,193	676,336.36	6,763.36
July	8/1/2011	5,779,266	186,428	772,629.14	7,726.69
August	8/31/2011	5,437,850	175,415	726,985.29	7,269.85
September	9/30/2011	4,744,559	153,050	634,299.33	6,342.99
October	10/31/2011	4,495,299	161,139	667,820.72	6,678.21
November	11/30/2011	4,128,999	133,194	552,005.21	5,520.05
December	1/3/2012	5,673,523	183,017	758,492.38	7,584.92

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December Monthly Precipitation
3.12 Inches

Metropolitan Saint Louis Sewer District
2350 Market Street
Saint Louis, Missouri 63103-2555

BRIDGETON LANDFILL LLC
13570 St. Charles Rock Road
Bridgeton, MO 63044

Attn: David Vasbinder
Environmental Manager

INDUSTRIAL WASTEWATER DISCHARGE PERMIT NUMBER 0511559802.

ANNUAL PERMIT FEE NOTICE

For permits in effect as of 10/01/2011.

Fee will be included in the **next regular monthly bill** from the Metropolitan St. Louis Sewer District.

Explanation of Charges

Fee for Pretreatment Program Discharge Permit covering the period October 1, 2011 through September 30, 2012 issued in accordance with the Metropolitan St. Louis District Ordinance #12413 for the location at **13570 St. Charles Rock Road**.

Base charge @ $150.00 per permit			$150.00
Volume charge @ $0.72 per average daily Ccf	209.53	Ccf(s)	$150.86
Sample Point Charge @ $100.00 per sample point	2	Point(s)	$200.00
		Total Fee Due:	**$500.86**

For inquiries about the Annual Permit Fee, please call 314-436-8756. For inquiries about payment of the fee, which will appear on your upcoming monthly bill, please call 1-866-281-5737.

THIS IS NOT A BILL

DO NOT PAY NOW

FEE WILL BE INCLUDED ON MONTHLY BILL

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Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

October 26, 2011

Dear Mr. Rehmer:

Third Quarter 2011 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-2

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the Third Quarter 2011 leachate sampling and analysis report for the Bridgeton Landfill. On August 17, 2011 and August 18, 2011, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-2. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Third Quarter 2011 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for July, August, and September 2011.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

For Matt Stewart
Staff Geologist

For Ward E. Herst
Managing Partner

4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

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Cc: *David Vasbinder, Republic Services, Inc.*
John Haasis, St. Louis County Department of Health
Linda Wegrzyn, Missouri Department of Natural Resources

Attachments:
Attachment 1 – Metropolitan St. Louis Sewer District Industrial User Self Monitoring Reports
Attachment 2 – Calculation of Discharged Activity
Attachment 3 – Heritage Environmental Laboratories, LLC, Laboratory Analytical Report
Attachment 4 – TestAmerica, Inc. Laboratory Analytical Report
Attachment 5 – Monthly Leachate Discharge Volume Records Provided by Bridgeton Landfill

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: 0511559802-2 Effective Date: 12/1/2010 Expiration Date: 11/30/2015

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (JAN-MAR) ☐(APR-JUNE) ☑(JULY-SEPT) ☐(OCT-DEC)

Samples Collected By: **Matt Stewart**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨		008							
DATES ON WHICH SAMPLES WERE COLLECTED ⇨		8/17/2011 and 8/18/2011							
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨		1126, 1621, 0726, 1126							
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)							UNITS
FLOW	***	E	170,369						GPD
Biochemical Oxygen Demand	***	C	160						mg/L
Chemical Oxygen Demand	***	C	950						mg/L
Oil and Grease	200	G	BDL						mg/L
pH Acidic (<7)	5.5	G							SU
pH Basic (≥7)	11.5	G	7.18						SU
Temperature	60	G	32.6						°C
Total Suspended Solids	***	C	46						mg/L
Ammonia (as N)	***	C	200						mg/L
Arsenic (Total)	0.4	C	NR						mg/L
Cadmium (Total)	0.7	C	NR						mg/L
Chromium (Total)	5.0	C	NR						mg/L
Copper (Total)	2.7	C	BDL						mg/L
Lead (Total)	0.4	C	NR						mg/L
Mercury (Total)	0.01	C	NR						mg/L
Nickel (Total)	2.3	C	0.031						mg/L
Zinc (Total)	3.0	C	0.097						mg/L
Total Toxic Organics	5.844	G	NR						mg/L
Gross Alpha	***	C	31 ± 19						pCi/L
Gross Beta	***	C	59 ± 12						pCi/L
Gross Gamma (as Cesium-137)	***	C	U						pCi/L
Radium – 226	***	C	3.3 ± 1.0						pCi/L
Radium – 228	***	C	2.5 ± 1.1						pCi/L
Uranium (Total)	***	C	BDL						µg/L

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Notes:
BDL = Below Detection Limit
U = Result is less than sample detection limit
NR = Not required during this monitoring event

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS**.

NONE

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below:
	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.
	Print or type name of signing official: **David Vasbinder**
	Title: **Environmental Manager** Telephone: **314-744-8166**
	Signature: [signature] Date: 10/26/11

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-2

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☐ (Apr-Jun) ☒ (July-Sept) ☐ (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	1.87×10^9
Gross Beta	3.56×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	3.3×10^8
Radium - 228	2.5×10^8
Total Activity Discharged :	5.78×10^9

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

☒ I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager

Telephone: 314-744-8166

Signature: [signature]

Date: 10/26/11

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.B.2 of the Bridgeton Landfill MSD Permit (Permit 0511559802-2), each quarterly discharge report shall specify the activity discharged to the sewer system by radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Third Quarter 2011 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\text{Discharged Activity} = \text{Activity Concentration} \times \text{Discharged Volume}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Third Quarter 2011 monitoring period.

Constituent	Result	Units
Gross Alpha	31 ± 19	pCi/L
Gross Beta	59 ± 12	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	3.3 ± 1.0	pCi/L
Radium – 228	2.5 ± 1.1	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Third Quarter 2011 monitoring period:

- July 2011: 5,779,266 gallons
- August 2011: 5,437,850 gallons
- September 2011: 4,744,559 gallons

Summation of the monthly volumes provides the total volume discharged during the Third Quarter 2011 period:

$$5{,}779{,}266\ gal + 5{,}437{,}850\ gal + 4{,}744{,}559\ gal = 15{,}961{,}675\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

4631 North St. Peters Parkway
St. Charles, Missouri 63304

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Telephone (636) 939-9111
Fax (636) 939-9757

$$15{,}961{,}675\ gal \times \frac{3.785\ L}{gal} = 60{,}414{,}940\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Alpha, multiply the activity concentration by the discharged volume:

$$\frac{31\ pCi}{L} \times 60{,}414{,}940\ L = 1.87 \times 10^{9}\ pCi$$

Similarly, for Gross Beta:

$$\frac{59\ pCi}{L} \times 60{,}414{,}940\ L = 3.56 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{3.3\ pCi}{L} \times 60{,}414{,}940\ L = 1.99 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{2.5\ pCi}{L} \times 60{,}414{,}940\ L = 1.51 \times 10^{8}\ pCi$$

Summation of the four (4) results yields the total discharged activity for the Third Quarter 2011 reporting period:

$$1.87 \times 10^{9}\ pCi + 3.56 \times 10^{9}\ pCi + 1.99 \times 10^{8}\ pCi + 1.51 \times 10^{8}\ pCi = 5.78 \times 10^{9}\ pCi$$

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Quality Assurance Report Package # 61987

HERST AND ASSOCIATES

JON WILKINSON
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Project : MO-ALLIED-BRIDGETON LANDFILL
LEACHATE - BRIDGETON LANDFILL

Sampled : 18-AUG-11

Sample Range : A926251

Approved by: CHRISTOPHER BOYLE - Project Manager

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 West Morris Street
Indianapolis, Indiana 46231
Phone: (317) 243-8304
Fax : (317) 486-5095

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	19-AUG-11	A926251
	Completed	**PO Number**
	31-AUG-11	4733-11001-8 (2011)
	Printed	**Sampled**
	31-AUG-11	18-AUG-11 11:26

Report To	Bill To
JON WILKINSON HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 NORTH OUTER ROAD ST. CHARLES, MO 63304	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 61987
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
PERMIT: 830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: C. HIPSKIND Analysis Date: 19-AUG-11 14:01 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	160	2	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: S. BOXUM Analysis Date: 26-AUG-11 14:10 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	950	20	mg/L

1:2 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: S. BOXUM Analysis Date: 22-AUG-11 14:20 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	46	1	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: T. DRIGGERS Analysis Date: 25-AUG-11 08:00 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	250		mL
FINAL VOLUME	250		mL

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Sample ID: A926251 OUTFALL 008

Parameter	Result	Det. Limit	Units
TEMPERATURE	32.6		Degrees C

FIELD SPECIFIC CONDUCTANCE EPA 120.1 NELAC:Y

Analysis Date: 18-AUG-11 Instrument: FIELD Test: G604.1.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	5110	1.0	umHOS/cm

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature 1.6 C.
Sample chain of custody number 53617.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

Approved by: CHRISTINE SARKAN 31-AUG-11

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Bridgeton Landfill

Lot #: F1H180440

Ward Herst

Herst & Associates Inc
4631 North St. Peters Prkwy
St Charles, MO 63304

TESTAMERICA LABORATORIES, INC.

Kay Clay
Project Manager

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September 20, 2011

METHODS SUMMARY

F1H180440

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
ICP-Mass Spectrometry ICP-Mass Spectrometry	MCAWW 200.8	
Radium-226 by GFPC	EPA 903.0 MOD	
Radium-228 by GFPC	EPA 904 MOD	

References:

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

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Herst & Associates, Inc

Client Sample ID: OUTFALL 008

TOTAL Metals

Lot-Sample #...: F1H180440-001 **Matrix.....:** WATER
Date Sampled...: 08/18/11 11:26 **Date Received..:** 08/18/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1235100						
Uranium	ND	1.0	ug/L	MCAWW 200.8	08/23-09/02/11	MLR3R1AF
		Dilution Factor: 1		Analysis Time..: 15:51		

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LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F1H180440 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F1H230000-100 **Prep Batch #...:** 1235100					
Uranium	111	(85 - 115)	MCAWW 200.8	08/23-09/02/11	MLXCV1AC
		Dilution Factor: 1	Analysis Time..: 15:24		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

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Herst & Associates, Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F1H180440-001
Work Order: MLR3R
Matrix: WATER

Date Collected: 08/18/11 1126
Date Received: 08/18/11 1205

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 1230237	Yld % 87
Radium 228	2.5		1.1	1.0	1.4	08/18/11	09/06/11
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 1230236	Yld % 97
Radium (226)	3.3		1.0	1.0	0.9	08/18/11	09/06/11
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 1244063	Yld %
Cesium 137	-0.3	U	6.2	20.0	11	09/01/11	09/11/11
Gross Alpha/Beta EPA 900				pCi/L		Batch # 1245158	Yld %
Gross Alpha	31		19	3	24	09/02/11	09/07/11
Gross Beta	59		12	4	11	09/02/11	09/07/11

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NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F1H180440
Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ+/-)	MDC	% Yld	% Rec	Lab Sample ID / QC Control Limits
Radium 226 by EPA 903.0 MOD			pCi/L	903.0 MOD			F1H180000-236C
Radium (226)	11.3	9.0	1.0	0.2	120	80	(64 - 125)
	Batch #:	1230236		Analysis Date:	09/06/11		
Radium 228 by GFPC EPA 904 MOD			pCi/L	904 MOD			F1H180000-237C
Radium 228	5.34	4.18	0.56	0.26	108	78	(65 - 126)
	Batch #:	1230237		Analysis Date:	09/06/11		
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	901.1 MOD			F1I010000-063C
Americium 241	141000	142000	12000	500		101	(90 - 110)
Cesium 137	53100	52800	3300	200		99	(90 - 110)
Cobalt 60	87900	86300	5300	300		98	(90 - 110)
	Batch #:	1244063		Analysis Date:	09/07/11		
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			F1I020000-158C
Gross Alpha	54.0	48.6	6.8	1.1		90	(74 - 138)
Gross Beta	102	78.1	8.4	0.9		77	(75 - 125)
	Batch #:	1245158		Analysis Date:	09/08/11		

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NOTE(S)

MDC is determined by instrument performance only
Calculations are performed before rounding to avoid round-off error in calculated results

Lot F1H180440

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F1H180440
Matrix: WATER

Date Sampled: 08/18/11
Date Received: 08/18/11

Parameter	SAMPLE Result	Total Uncert. (2σ+/-)	% Yld	DUPLICATE Result	Total Uncert. (2σ+/-)	% Yld	QC Sample ID Precision	
Radium 226 by EPA 903.0 MOD			**pCi/L**	**903.0 MOD**			**F1H180440-001**	
Radium (226)	3.3	1.0	97	4.0	1.1	86	18	%RPD
	Batch #:	1230236 (Sample)		1230236 (Duplicate)				
Radium 228 by GFPC EPA 904 MOD			**pCi/L**	**904 MOD**			**F1H180440-001**	
Radium 228	2.5	1.1	87	2.3	1.4	74	5	%RPD
	Batch #:	1230237 (Sample)		1230237 (Duplicate)				
Gamma Cs-137 & Hits by EPA 901.1 MOD			**pCi/L**	**901.1 MOD**			**F1H180440-001**	
Cesium 137	-0.3 U	6.2		-0.5 U	5.9		66	%RPD
	Batch #:	1244063 (Sample)		1244063 (Duplicate)				
Gross Alpha/Beta EPA 900			**pCi/L**	**900.0 MOD**			**F1H180440-001**	
Gross Alpha	31	19		2 U	15		171	%RPD
Gross Beta	59	12		62	12		5	%RPD
	Batch #:	1245158 (Sample)		1245158 (Duplicate)				

RECEIVED

NOTE(S)

Data are incomplete without the case narrative.
Calculations are performed before rounding to avoid round-off error in calculated results

U Result is less than the sample detection limit.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F1H180440

TestAmerica St. Louis

CUR Form #: 0 3 2

CONDITION UPON RECEIPT FORM

Client: HERST + ASSOCIATES

Quote No: 49794

COC/RFA No: 1894448

Initiated By: NVD

Date: 8/18/11

Time: 1205

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*

1. N/A
2.
3.
4.
5.
6.
7.
8.
9.
10.

Sample Temperature (s):**

1. 2
2.
3.
4.
5.
6.
7.
8.
9.
10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y N	Are there custody seals present on the cooler?	8.	Y N	Are there custody seals present on bottles?
2.	Y N N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N N/A	Do custody seals on bottles appear to be tampered with?
3.	Y N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	Y N	Sample received with Chain of Custody?	11.	Y N N/A	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5.	Y N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N	Sample received in proper containers?
6.	Y N	Was sample received broken?	13.	Y N N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	Y N	Is sample volume sufficient for analysis?	14.	Y N N/A	Was Internal COC/Workshare received?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes:

RECEIVED

Corrective Action:

☐ Client Contact Name: _____ Informed by: _____

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: [signature] Date: 8-25-11

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004 rev13, REVISED 05/27/11 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin-0004 CUR.doc

2011

Bridgeton Landfill LLC
Monthly Leachate Outfall Report

10/19/2011 Filed in 15.4

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	2/4/2011	4,712,812	152,026	630,055.08	6,300.55
February	2/28/2011	4,496,670	159,570	661,319.52	6,613.20
March	4/1/2011	4,826,686	155,700	645,278.88	6,452.79
April	5/2/2011	2,986,384	96,335	399,249.20	3,992.49
May	5/31/2011	4,548,265	146,718	608,056.82	6,080.57
June	7/1/2011	5,058,996	163,193	676,336.36	6,763.36
July	8/1/2011	5,779,266	186,428	772,629.14	7,726.69
August	8/31/2011	5,437,850	175,415	726,985.29	7,269.85
September	9/30/2011	4,744,559	153,050	634,299.33	6,342.99
October					
November					
December					

RECEIVED

Sept. Monthly Precipitation
3.18 Inches

SR
7-25

HERST & ASSOCIATES, INC.®

Global Presence
Personal Attention

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

July 20, 2011

Dear Mr. Rehmer:

Second Quarter 2011 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-2

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the Second Quarter 2011 leachate sampling and analysis report for the Bridgeton Landfill. On May 10, 2011 and May 11, 2011, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-2. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Second Quarter 2011 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for April, May, and June 2011.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Matt Stewart
Staff Geologist

Ward E. Herst
Managing Partner

RECEIVED
JUL 25 2011
DIVISION OF
ENVIRONMENTAL COMPLIANCE

4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

Cc: *David Vasbinder, Republic Services, Inc.*
John Haasis, St. Louis County Department of Health
Linda Wegrzyn, Missouri Department of Natural Resources

Attachments:
Attachment 1 – Metropolitan St. Louis Sewer District Industrial User Self Monitoring Reports
Attachment 2 – Calculation of Discharged Activity
Attachment 3 – Heritage Environmental Laboratories, LLC, Laboratory Analytical Report
Attachment 4 – TestAmerica, Inc. Laboratory Analytical Report
Attachment 5 – Monthly Leachate Discharge Volume Records Provided by Bridgeton Landfill

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: 0511559802-2 Effective Date: 12/1/2010 Expiration Date: 11/30/2015

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (JAN-MAR) ☑ (APR-JUNE) ☐(JULY-SEPT) ☐(OCT-DEC)

Samples Collected By: **Brandon Killion**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc.**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨		008						
DATES ON WHICH SAMPLES WERE COLLECTED ⇨		5/10/2011 and 5/11/2011						
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨		1110, 1530, 0710, 1110						
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW	***	E	40,288					GPD
Biochemical Oxygen Demand	***	C	180					mg/L
Chemical Oxygen Demand	***	C	920					mg/L
Oil and Grease	200	G	8.1					mg/L
pH Acidic (<7)	5.5	G	6.95					SU
pH Basic (≥7)	11.5	G						SU
Temperature	60	G	29.6					°C
Total Suspended Solids	***	C	23					mg/L
Ammonia (as N)	***	C	200					mg/L
Arsenic (Total)	0.4	C	0.019					mg/L
Cadmium (Total)	0.7	C	BDL					mg/L
Chromium (Total)	5.0	C	0.015					mg/L
Copper (Total)	2.7	C	BDL					mg/L
Lead (Total)	0.4	C	BDL					mg/L
Mercury (Total)	0.01	C	BDL					mg/L
Nickel (Total)	2.3	C	0.023					mg/L
Zinc (Total)	3.0	C	0.021					mg/L
Total Toxic Organics	5.844	G	3.222					mg/L
Gross Alpha	***	C	U					pCi/L
Gross Beta	***	C	47 ± 11					pCi/L
Gross Gamma (as Cesium-137)	***	C	U					pCi/L
Radium – 226	***	C	3.22 ± 0.38					pCi/L
Radium – 228	***	C	2.04 ± 0.43					pCi/L
Uranium (Total)	***	C	BDL					µg/L

Notes:
BDL = Below Detection Limit
U = Result is less than sample detection limit

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS**.

NONE

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below:
	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.
	Print or type name of signing official: **David Vasbinder**
	Title: **Environmental Manager** Telephone: **314-744-8166**
	Signature: Date: 7/20/11

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-2

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☒ (Apr-Jun) ☐ (July-Sept) ☐ (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	Not Applicable – Constituent Not Detected
Gross Beta	2.24×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	1.53×10^8
Radium - 228	9.72×10^7
Total Activity Discharged :	2.49×10^9 pCi

= 2.49 nCi

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

☒ I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager

Telephone: 314-744-8166

Signature:

Date: 7/20/11

Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.B.2 of the Bridgeton Landfill MSD Permit (Permit 0511559802-2), each quarterly discharge report shall specify the activity discharged to the sewer system by radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Second Quarter 2011 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\text{Discharged Activity} = \text{Activity Concentration} \times \text{Discharged Volume}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Second Quarter 2011 monitoring period.

Constituent	Result	Units
Gross Alpha	U	pCi/L
Gross Beta	47 ± 11	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	3.22 ± 0.38	pCi/L
Radium – 228	2.04 ± 0.43	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Second Quarter 2011 monitoring period:

- April 2011: 2,986,384 gallons
- May 2011: 4,548,265 gallons
- June 2011: 5,058,996 gallons

Summation of the monthly volumes provides the total volume discharged during the Second Quarter 2011 period:

$$2{,}986{,}384\ gal + 4{,}548{,}265\ gal + 5{,}058{,}996\ gal = 12{,}593{,}645\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

$$12{,}593{,}645\ gal \times \frac{3.785\ L}{gal} = 47{,}666{,}946\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Beta, multiply the activity concentration by the discharged volume:

$$\frac{47\ pCi}{L} \times 47{,}666{,}946\ L = 2.24 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{3.22\ pCi}{L} \times 47{,}666{,}946\ L = 1.53 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{2.04\ pCi}{L} \times 47{,}666{,}946\ L = 9.72 \times 10^{7}\ pCi$$

Summation of the three (3) results yields the total discharged activity for the Second Quarter 2011 reporting period:

$$2.24 \times 10^{9}\ pCi + 1.53 \times 10^{8}\ pCi + 9.72 \times 10^{7}\ pCi = 2.49 \times 10^{9}\ pCi$$

HERITAGE
ENVIRONMENTAL SERVICES

Quality Assurance Report Package # 61541

HERST AND ASSOCIATES

JON WILKINSON
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Project : MO-ALLIED-BRIDGETON LANDFILL
LEACHATE - BRIDGETON LANDFILL

Sampled : 11-MAY-11

Sample Range : A916860

Approved by: CHRISTOPHER BOYLE - Project Manager

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 West Morris Street
Indianapolis, Indiana 46231
Phone: (317) 243-8304
Fax : (317) 486-5095

MSD 024137

01070414

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231
www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I-081307

1 of 1

Customer name/number: Allied Waste Systems Submitter # 8945
Project Name: Leachate - Bridgeton Landfill
Z Quote No: Z140306 (Given to you by your contact)
PO No. or Project/Activity ID: 4733-11001-8(2011)
PRINT HERITAGE TSR NAME:

CUSTOMER STATUS: New / Existing

If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Bob Kill

Analyses Requested (Note special detection limits or methods)

Send Report To:
Co: Hirst & Associates, Inc
Add: 4631 N. St. Peters Parkway St. Charles, MO 63304
Attn: Ward Hirst
Phone: (636) 939-9111
Fax: (636) 939-9757
E-mail: labdata@hirstassociates.com

Sample Turn Around Time
Standard: ✓ Rush Date: / / (Mo Day Yr)
(Accelerated TAT subject to Additional Charge; Date must be accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix) DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z140306	Remarks:	Lab use only Sample No
5/10-11/11	1110, 1530 0710, 1110 AM PM	X		Outfall 008	L	4	X	L = Leachate	A916860
5/11/11	1110 AM PM		X	Outfall 008	L	10	X		1

Relinquished by: (Signature) Date/Time 5/11/11 1300
Received by: (Signature) FedEx # 9848 0968 0147
Relinquished by: (Signature) Date/Time /
Received by: (Signature)
Relinquished by: (Signature) Date/Time /
Received by: (Signature) (2)
Received for Lab by: (Signature) Date 5/12/11 Time 0723 Temp. 25 °C ROI: Yes / No

Laboratory use only	Yes	No
Custody seals present/intact?	—	
Broken containers?		—
COC agree with sample labels?	—	
Correct containers for testing?	—	
Headspace issues acceptable?	—	
Holding time(s) acceptable?	—	
Preservative pH's acceptable?	—	
Was pH left unadjusted?	—	

Comments: #Short Hold#
5/10/11 1110, 1530
5/11/11 0710, 1110
5/11/11 @ 1110
pH: 6.95 su, Cond: 4310 µm
Temp: 29.6°C, Turb: 79.9 NTU

ORIGINAL

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	12-MAY-11	A916860
	Completed	**PO Number**
	03-JUN-11	4733-11001-8 (2011)
	Printed	**Sampled**
	09-JUN-11	11-MAY-11 11:10

Report To	Bill To
JON WILKINSON HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 NORTH OUTER ROAD ST. CHARLES, MO 63304	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 61541
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: ANNUAL LEACHATE
PERMIT: 830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: J. CROFFIE Analysis Date: 13-MAY-11 14:55 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	180	2	mg/L

The CCV is biased low.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: J. CROFFIE Analysis Date: 19-MAY-11 16:20 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	920	20	mg/L

1:2 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: S. BOXUM Analysis Date: 16-MAY-11 14:00 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	23	1	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: J. SMITH Analysis Date: 25-MAY-11 10:15 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL

FINAL VOLUME	250		mL

The prep analyst decreased the initial weight/volume due to the matrix of the sample and/or a strong odor.

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 24-MAY-11 09:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	200	25	mg/L

1:50 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: B. NDABAMBI Analysis Date: 24-MAY-11 12:00 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	8.1	5.0	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: K. KAMARA Analysis Date: 18-MAY-11 09:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 19-MAY-11 09:38 Instrument: ICP Test: M403.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.019	0.010	mg/L

CADMIUM ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 19-MAY-11 09:38 Instrument: ICP Test: M408.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 19-MAY-11 09:38 Instrument: ICP Test: M410.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
CHROMIUM	0.015	0.010	mg/L

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Sample ID: A916860 OUTFALL 008

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 19-MAY-11 09:38 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	0.010	mg/L

LEAD ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 19-MAY-11 09:38 Instrument: ICP Test: M416.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.010	mg/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 19-MAY-11 09:38 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	0.023	0.0050	mg/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 19-MAY-11 09:38 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	0.021	0.020	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 NELAC:Y

Analyst: W. WATNESS Analysis Date: 03-JUN-11 08:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1 REV. 3.0 NELAC:Y

Analyst: S. O'NEAL Analysis Date: 03-JUN-11 15:05 Instrument: CVAA Test: M420.2.0

Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

Analyst: J. MINNIEAR, II Analysis Date: 18-MAY-11 20:30 Instrument: PREP Test: P243.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

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ENVIRONMENTAL SERVICES

Sample ID: A916860 OUTFALL 008

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 26-MAY-11 15:19 Instrument: GC/MS SVOA Test: O501.3.0

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
2,4,6-TRICHLOROPHENOL	BDL	10	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
4-NITROPHENOL	BDL	10	ug/L
2,4-DINITROPHENOL	BDL	20	ug/L
4,6-DINITRO-O-CRESOL	BDL	10	ug/L
PENTACHLOROPHENOL	BDL	10	ug/L
PHENOL	EX	10	ug/L
ACENAPHTHENE	BDL	10	ug/L
BENZIDINE	BDL	20	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	10	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	10	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	12	10	ug/L
3,3'-DICHLOROBENZIDINE	BDL	10	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
FLUORANTHENE	BDL	10	ug/L
4-CHLOROPHENYL-PHENYLETHER	BDL	10	ug/L
4-BROMODIPHENYL ETHER	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
NAPHTHALENE	17	10	ug/L
NITROBENZENE	BDL	10	ug/L
N-NITROSODIMETHYLAMINE	BDL	10	ug/L
N-NITROSO-DIPROPYLAMINE	BDL	10	ug/L
N-NITROSODIPHENYLAMINE	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L

HERITAGE
ENVIRONMENTAL SERVICES

Sample ID: A916860 OUTFALL 008

(BENZYLBUTYLPHTHALATE) BUTYLBENZYLPHTHALATE	BDL	10	ug/L
DI-N-BUTYLPHTHALATE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
PHENANTHRENE	12	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
PYRENE	BDL	10	ug/L
1,2-DIPHENYLHYDRAZINE	BDL	10	ug/L
2-METHYLPHENOL (O-CRESOL)	21	10	ug/L
3-METHYLPHENOL (M-CRESOL)	*	10	ug/L
4-METHYLPHENOL (P-CRESOL)	EX *	10	ug/L
...			
SURROGATE RECOVERY			

2-FLUOROPHENOL	47		% Rec
PHENOL-D5	48		% Rec
NITROBENZENE-D5	107		% Rec
2-FLUOROBIPHENYL	101		% Rec
2,4,6-TRIBROMOPHENOL	73		% Rec
TERPHENYL-D14	47		% Rec

DUE TO LABORATORY INSTRUMENT CONSTRAINTS, BENZIDINE AND 2,4-DINITROPHENOL ARE REPORTED AT DETECTION LIMITS OF 20 UG/L INSTEAD OF 10 UG/L

*NOTE: 3-Methylphenol and 4-Methylphenol co-elute.

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: J. MINNIEAR, II Analysis Date: 27-MAY-11 22:12 Instrument: GC/MS SVOA Test: O501.3.1

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
PHENOL	280	50	ug/L
3-METHYLPHENOL (M-CRESOL)	*	50	ug/L

HERITAGE
ENVIRONMENTAL SERVICES

Sample ID: A916860 OUTFALL 008

4-METHYLPHENOL (P-CRESOL)	* 180	50	ug/L
...			
SURROGATE RECOVERY			

2-FLUOROPHENOL	50		% Rec
PHENOL-D5	46		% Rec
NITROBENZENE-D5	113		% Rec
2-FLUOROBIPHENYL	96		% Rec
2,4,6-TRIBROMOPHENOL	67		% Rec
TERPHENYL-D14	30		% Rec

DUE TO LABORATORY INSTRUMENT CONSTRAINTS, BENZIDINE AND 2,4-DINITROPHENOL ARE REPORTED AT DETECTION LIMITS OF 20 UG/L INSTEAD OF 10 UG/L

1:5 Dilution

Dilution necessary due to high concentration of target analytes.

NOTE: * 3-Methylphenol and 4-Methylphenol co-elute.

VOLATILE PRIORITY POLLUTANTS EPA 624 NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 17-MAY-11 18:40 Instrument: GC/MS VOA Test: O502.3.0

Parameter	Result	Det. Limit	Units
ACROLEIN	BDL	500	ug/L
ACRYLONITRILE	BDL	700	ug/L
BENZENE	BDL	50	ug/L
BROMOFORM	BDL	50	ug/L
CARBON TETRACHLORIDE	BDL	50	ug/L
CHLOROBENZENE	BDL	50	ug/L
CHLOROETHANE	BDL	50	ug/L
2-CHLOROETHYLVINYLETHER	BDL	50	ug/L
CHLOROFORM	BDL	50	ug/L
DIBROMOCHLOROMETHANE	BDL	50	ug/L
BROMODICHLOROMETHANE	BDL	50	ug/L
1,1-DICHLOROETHANE	BDL	50	ug/L
1,2-DICHLOROETHANE	BDL	50	ug/L
1,1-DICHLOROETHENE	BDL	50	ug/L
1,2-DICHLOROPROPANE	BDL	50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	50	ug/L
ETHYL BENZENE	BDL	50	ug/L
BROMOMETHANE	BDL	50	ug/L
CHLOROMETHANE	BDL	50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	50	ug/L

HERITAGE
ENVIRONMENTAL SERVICES

Sample ID: A916860 OUTFALL 008

1,1,2,2-TETRACHLOROETHANE	BDL	50	ug/L
TETRACHLOROETHENE	BDL	50	ug/L
TOLUENE	BDL	50	ug/L
1,2-DICHLOROETHENE (CIS AND TRANS)	BDL	50	ug/L
1,1,1-TRICHLOROETHANE	BDL	50	ug/L
1,1,2-TRICHLOROETHANE	BDL	50	ug/L
TRICHLOROETHENE	BDL	50	ug/L
TRICHLOROFLUOROMETHANE	BDL	50	ug/L
VINYL CHLORIDE	BDL	50	ug/L
2-BUTANONE (MEK)	2700	100	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	94		% Rec
TOLUENE-D8	98		% Rec
4-BROMOFLUOROBENZENE	101		% Rec

1:10 Dilution

PH6

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

Unable to analyze at lower dilution due to sample matrix. Sample foamed.

Acrolein & Acrylonitrile reported only for screening purposes. Results should be considered estimated.

ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

Analyst: B. WOOD | Analysis Date: 13-MAY-11 | Instrument: PREP | Test: P223.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	950		mL
FINAL VOLUME	10		mL

ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 NELAC:Y

Analyst: T. PINCKERT | Analysis Date: 18-MAY-11 04:09 | Instrument: GC/ECD | Test: O305.0.0

Prep: ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608 P223.1.0

Parameter	Result	Det. Limit	Units
ALPHA-BHC	BDL	10	ug/L
BETA-BHC	BDL	10	ug/L
DELTA-BHC	BDL	10	ug/L
GAMMA-BHC (LINDANE)	BDL	10	ug/L
HEPTACHLOR	BDL	10	ug/L
ALDRIN	BDL	10	ug/L

HERITAGE
ENVIRONMENTAL SERVICES

Sample ID: A916860 OUTFALL 008

HEPTACHLOR EPOXIDE	BDL	10	ug/L
ENDOSULFAN I	BDL	10	ug/L
DIELDRIN	BDL	10	ug/L
4,4'-DDE	BDL	10	ug/L
ENDRIN	BDL	10	ug/L
ENDOSULFAN II	BDL	10	ug/L
4,4'-DDD	BDL	10	ug/L
ENDOSULFAN SULFATE	BDL	10	ug/L
4,4'-DDT	BDL	10	ug/L
METHOXYCHLOR	BDL	10	ug/L
ENDRIN ALDEHYDE	BDL	10	ug/L
ALPHA-CHLORDANE	BDL	10	ug/L
GAMMA-CHLORDANE	BDL	10	ug/L
CHLORDANE	BDL	10	ug/L
TOXAPHENE	BDL	10	ug/L
PCB AROCLOR 1016	BDL	10	ug/L
PCB AROCLOR 1221	BDL	10	ug/L
PCB AROCLOR 1232	BDL	10	ug/L
PCB AROCLOR 1242	BDL	10	ug/L
PCB AROCLOR 1248	BDL	10	ug/L
PCB AROCLOR 1254	BDL	10	ug/L
PCB AROCLOR 1260	BDL	10	ug/L
...			
SURROGATE RECOVERY			

DECACHLOROBIPHENYL (DCB)	47.6		% Rec

Sample Comments

* See Note for Parameter
BDL Below Detection Limit
EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 2.5 C.
Sample chain of custody number 081307.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAP (National Environmental Laboratory Accreditation Program) accredited (Yes for NELAP) meet all requirements of NELAP and Kansas (KDHE) unless otherwise explained or justified as to the the exact nature of the deviations.
KS ELAP / NELAP Accreditation # E-10177 Indiana SDWA C-49-01

Approved by: CHRISTINE SARKAN 09-JUN-11

Herst & Associates, Inc

Client Sample ID: OUTFALL 008

TOTAL Metals

Lot-Sample #...: F1E110517-001 **Matrix.....:** WATER
Date Sampled...: 05/11/11 11:10 **Date Received..:** 05/11/11

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 1139113						
Uranium	ND	1.0	ug/L	MCAWW 200.8	05/19-05/24/11	MH8VX1AG
		Dilution Factor: 1		Analysis Time..: 21:08		

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F1E110517 **Matrix.....:** WATER

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F1E190000-113 **Prep Batch #...:** 1139113						
Uranium	ND	1.0	ug/L	MCAWW 200.8	05/19-05/24/11	MJK351AA
		Dilution Factor: 1				
		Analysis Time..: 20:15				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F1E110517 **Matrix.....:** WATER

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: F1E190000-113 **Prep Batch #...:** 1139113					
Uranium	112	(85 - 115)	MCAWW 200.8	05/19-05/24/11	MJK351AC
		Dilution Factor: 1	Analysis Time..: 20:22		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F1E110517 **Matrix.....:** WATER
Date Sampled...: 05/11/11 11:10 **Date Received..:** 05/11/11

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION-ANALYSIS DATE	WORK ORDER #
MS Lot-Sample #: F1E110517-001 **Prep Batch #...:** 1139113							
Uranium	112	(70 - 130)			MCAWW 200.8	05/19-05/24/11	MH8VX1AH
	110	(70 - 130)	1.4	(0-20)	MCAWW 200.8	05/19-05/24/11	MH8VX1AJ

Dilution Factor: 1
Analysis Time..: 21:22

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Herst & Associates, Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F1E110517-001
Work Order: MH8VX
Matrix: WATER

Date Collected: 05/11/11 1110
Date Received: 05/11/11 1140

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 1131258	Yld % 68
Radium 228	2.04		0.43	1.00	0.42	05/11/11	05/27/11
Gross Alpha/Beta EPA 900				pCi/L		Batch # 1144166	Yld %
Gross Alpha	8	U	18	3	32	05/24/11	05/28/11
Gross Beta	47		11	4	12	05/24/11	05/28/11
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 1131257	Yld % 79
Radium (226)	3.22		0.38	1.00	0.10	05/11/11	05/31/11
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 1143075	Yld %
Cesium 137	-2.5	U	8.4	20.0	15	05/19/11	06/10/11

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F1E110517
Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC		Prep Date	Analysis Date	Lab Sample ID
Radium 226 by EPA 903.0 MOD			pCi/L	Batch #	1131257	Yld %	109		F1E110000-257B
Radium (226)	0.034	U	0.051	1.00	0.086		05/11/11	05/31/11	
Radium 228 by GFPC EPA 904 MOD			pCi/L	Batch #	1131258	Yld %	97		F1E110000-258B
Radium 228	0.18	U	0.19	1.00	0.31		05/11/11	05/27/11	
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	Batch #	1143075	Yld %			F1E230000-075B
Cesium 137	-0.05	U	8.1	20.0	15		05/19/11	06/10/11	
Gross Alpha/Beta EPA 900			pCi/L	Batch #	1144166	Yld %			F1E240000-166B
Gross Alpha	0.09	U	0.51	3.00	0.96		05/24/11	05/28/11	
Gross Beta	-0.18	U	0.50	4.00	0.91		05/24/11	05/28/11	

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

2011

Bridgeton Landfill LLC
Monthly Leachate Outfall Report

7/20/2011 Filed in 15.4

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	2/4/2011	4,712,812	152,026	630,055.08	6,300.55
February	2/28/2011	4,496,670	159,570	661,319.52	6,613.20
March	4/1/2011	4,826,686	155,700	645,278.88	6,452.79
April	5/2/2011	2,986,384	96,335	399,249.20	3,992.49
May	5/31/2011	4,548,265	146,718	608,056.82	6,080.57
June	7/1/2011	5,058,996	163,193	676,336.36	6,763.36
July					
August					
September					
October					
November					
December					

June Monthly Precipitation
9.10 Inches

MSD 024152

Metropolitan St. Louis Sewer District

Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

May 6, 2011

David Vasbinder
BRIDGETON LANDFILL
13570 St. Charles Rock Road
Bridgeton, MO 63044

RE: Account Number 0039145-8

Dear Mr. Vasbinder:

The Metropolitan St. Louis Sewer District (MSD) routinely reviews analytical data, which shows the strength of wastewaters discharged by industrial users. The purpose of this review is to determine which users should pay extra strength surcharges as authorized by Sewer Service Charge Ordinance 13021. The analytical results for BOD, COD, and TSS are used for this purpose. Surcharges become applicable for a user when their average concentrations of BOD, COD, and/or TSS exceed normal concentrations.

Our records show that your discharge has been sampled 15 times during the past 22 months, including eight certified MSD self-monitoring reports as required by your discharge permit, and seven MSD routine monitoring samples. The average concentrations of BOD, COD, and TSS calculated from this sample data are higher than your current billing surcharge concentrations. Therefore, your surcharge concentrations will be increased, resulting in a higher surcharge fee per CcF of wastewater discharged. The average concentrations of BOD and COD calculated from these sample data indicate that your facility is subject to the surcharge provisions of the Ordinance. Shown below are the ordinance normal concentrations, current billing surcharge concentrations and the new average concentrations for the 15 samples referenced above. The data from the **15** samples used to calculate the new averages are enclosed as Attachment 1.

PARAMETER	MSD ORDINANCE NORMAL CONCENTRATIONS (mg/L)	CURRENT BILLING CONCENTRATIONS (mg/L)	NEW AVERAGE CONCENTRATIONS (mg/L)
BOD	300	79	312
COD	600	760	953
TSS	300	50	65

The new average concentrations shown above will be used to determine the amount of surcharge on future sewer service charges billed to Bridgeton Landfill by MSD unless you are able to provide a detailed justification for using different values. As part of your justification for using different values, you may provide additional sampling data or explain why any of the results used in calculating the above averages may not be representative of your average wastewater strength.

Any additional analytical data you wish to provide must be submitted on the enclosed Extra Strength Surcharge Monitoring Report form. You will need to explain how this data is representative of your wastewater strength. If you elect to submit additional information or new data, please provide this information by **June 6, 2011**.

In the absence of a response, we will consider you have elected to accept the new average concentrations and we will use these values for future surcharge billing as provided by MSD Ordinance 13021, Section Three, (B)(2)(c). If you agree to accept the new average concentrations at this time, you may in the future request that MSD recertify Bridgeton Landfill extra strength surcharge values with updated information. A recertification may be granted using updated sample data you provide and/or updated sample data in our records.

For your convenience we have enclosed "Industrial Waste Surcharge Information," "Basic Guidelines for Wastewater Sampling," and a "Extra Strength Surcharge Monitoring Report." These documents provide further information and instructions if you elect to conduct additional sampling. Should you have any questions, please call me at (314) 436-8716.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Darin Lewis
Environmental Engineering Associate

Attachment 1

Sample Data

SP001

Sample Date	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Sample Taker
07/01/2009	59	462	17	MSD
10/13/2009	460	1,140	30	MSD
01/21/2010	505	1,075	193	MSD
06/23/2010	153	645	252	MSD
09/02/2010	678	1,442	64	MSD
11/23/2010	302	823	62	MSD
03/08/2011	301	949	80	MSD

SP002

Sample Date	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Sample Taker
05/07/2009	36	600	25	Industry
08/06/2009	33	520	19	Industry
11/04/2009	170	870	24	Industry
02/25/2010	210	790	21	Industry
05/25/2010	910	1,700	62	Industry
09/08/2010	180	920	22	Industry
11/17/2010	260	980	22	Industry
03/16/2011	390	1,400	33	Industry

bv

pc: Brian Gibson
Doug Mendoza

FILE: IU, Bridgeton Landfill, 0511559802

DL. 7/5/11

MEMO TO: Chris Verplancke
Finance Department

FROM: Darin Lewis

DATE: July 5, 2011

SUBJECT: Surcharge Changes

We recommend that the new surcharge values below be applied to the following account effective July 2011.

Account No: 0039145-8

Company: **BRIDGETON LANDFILL**

Premise: 13570 St. Charles Rock Road
Bridgeton, MO 63044

	TSS	BOD	COD
New Surcharge Values (mg/L):	65	312	953
Old Surcharge Values (mg/L):	50	79	760

This change was initiated by the District. These values were agreed to during a telephone conversation from David Vasbinder of Bridgeton Landfill on July 5, 2011. The surcharge values represent the average of eight composite samples collected between May 7, 2009 and March 16, 2011.

Based on a wastewater discharge of 94,449 CCF, this equates to an estimated annual revenue increase to the District of $16,968.76.

If you have any questions, please call me at 436-8716.

pc: Brian Gibson
Doug Mendoza
Scott Rehmer

FILE: IU, Bridgeton Landfill, 051159802

EXTRA STRENGTH SURCHARGE REVIEW CHECKLIST

Reviewed by: D. Lewis Date: 5-5-11 Checked by: [illegible] Date: 5/6/11

Review PIMS, ECIS, industry file, and permit file.

1) Company name: Bridgeton Landfill

2) Primary PIMS account number: 0511559802 and it's ECIS account number: 0639145-8

3) Premise address: 13570 St. Charles Rock Road Bridgeton MO 63044

4) Is discharge greater than 60,000 gallon(80 CcF)/month, considering RF? ☑ Yes ☐ No
If no, take no further action.

5) Is company currently in surcharge? ☑ Yes ☐ No
If yes, last recertification date: 5-19-09 and do current surcharge values match ECIS, including related accounts? ☑ Yes ☐ No

If no, explain:

6) Reason for surcharge action: ☑ Bi-Annual Review ☐ Customer Requested ☐ Other

If other, comment:

7) Number of work shifts per day. Identify hours of work and brief process description:
1st: 6:00 Am 10hours / 5day Closed Landfill - Leachate
2nd:
3rd:

8) Are sample collection times representative of facility work shifts? ☑ Yes ☐ No

If no, comment:

9) Update Surcharge status Log: ☑ Yes

10) New surcharge concentrations (mg/L): BOD 312 COD 953 TSS 65
Final surcharge concentrations (mg/L): BOD COD TSS
11) Old surcharge concentrations (mg/L): BOD 79 COD 760 TSS 50

12) Comment on changes in wastewater strength:

13) Send Notification letter to: David Vasbinder

14) Other related sewer accounts to be billed surcharges: N/A

15) Waiting for IUQ? ☐ Yes ☐ No If surcharge is removed or decreased, check with DEC IU assigned inspector to review if we are waiting for an IUQ. We will refrain granting changes until IU provides the inspector with the required information.

16) Recertification Comments

17) Memo to Finance, date: 7-5-11

18) Enter final surcharge billing values into PIMS and Surcharge Log file, date: 7-5-11

19) Additional sample data forwarded to Pretreatment unit for PIMS entry: ☐ Yes ☑ N/A

Attachments
Surcharge calculation, first pass, all data dated: 5-5-11
Surcharge calculation, first pass, MSD data dated: ↓
Surcharge calculation, first pass, IND data dated: ↓
Surcharge calculation, final data dated:
MSD letters, dated:
Industry letters, dated:

Rev.5/07 rab

N:\Envcom\EXEC\ENVCOM\CostRecovery\Surcharge\E5.Checklist.DOC
FILE: IU

SURCHARGE CALCULATOR

Date:4/26/2011
File:o:\envcom\surcharg\0511559802-2011.xls

Sum of Discharge Factors: 1.00

Sampling Point: 007				Discharge factor: 0.50			Flow: ####	GPD
	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1	07/01/2009	N/A			yes	59	462	17	4	MSD
2	10/13/2009	N/A			yes	460	1140	30	3	MSD
3	01/21/2010	N/A			yes	505	1075	193	5	MSD
4	06/23/2010	N/A			yes	153	645	252	4	MSD
5	09/02/2010	N/A			yes	678	1442	64	5	MSD
6	11/23/2010	N/A			yes	302	823	62	3	MSD
7	03/08/2011	N/A			yes	301	949	80	3	MSD
8		N/A			N/A				N/A	
9		N/A			N/A				N/A	
10		N/A			N/A				N/A	
11		N/A			N/A				N/A	
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	2458	6536	698		
					Average:	351	934	100		
					Weighted Average:	175	465	50		

1=Sun, 2=Mon, 3=Tue, 4=Wed, 5=Thur, 6=Fri, 7=Sat

Sampling Point: 008				Discharge factor: 0.50			Flow: ####	GPD
	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1	05/07/2009	N/A			yes	36	600	25	5	Industry
2	08/06/2009	N/A			yes	33	520	19	5	Industry
3	11/04/2009	N/A			yes	170	870	24	4	Industry
4	02/25/2010	N/A			yes	210	790	21	5	Industry
5	05/25/2010	N/A			yes	910	1700	62	3	Industry
6	09/08/2010	N/A			yes	180	920	22	4	Industry
7	11/17/2010	N/A			yes	260	980	22	4	Industry
8	03/16/2011	N/A			yes	390	1400	33	4	Industry
9		N/A			N/A				N/A	
10		N/A			N/A				N/A	
11		N/A			N/A				N/A	
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	2189	7780	228		
					Average:	274	973	29		
					Weighted Average:	137	488	15		

Sampling Point: 003				Discharge factor: 0.00			Flow:	GPD
	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1		N/A			N/A				N/A	
2		N/A			N/A				N/A	
3		N/A			N/A				N/A	
4		N/A			N/A				N/A	
5		N/A			N/A				N/A	
6		N/A			N/A				N/A	
7		N/A			N/A				N/A	
8		N/A			N/A				N/A	
9		N/A			N/A				N/A	
10		N/A			N/A				N/A	
11		N/A			N/A				N/A	
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	0	0	0		
					Average:	0	0	0		
					Weighted Average:	0	0	0		

General Information:

Calculated by:	Darin Lewis
Facility name:	Bridgeton Landfill
Account No:	511559802
Last recertification date:	5/19/2009

Volume:

First meter reading date:	4/1/2010	
Last meter reading date:	4/1/2011	
Total Volume:	94449	CcF
RF:	1.00	
Annualized volume:	94449	CcF
Monthly volume:	7871	CcF

Surcharge Values:

	Previous		New	
BOD:	79	mg/L	312	mg/L
COD:	760	mg/L	953	mg/L
TSS:	50	mg/L	65	mg/L

Surcharge Calculations:

BOD in normal wastewater:	300	mg/L		
COD in normal wastewater:	600	mg/L		
TSS in normal wastewater:	300	mg/L		
			Ordiannce:	13021
Current BOD rate:	$ 596.72	/ ton	Effective:	7/1/2010
Current COD rate:	$ 298.36	/ ton	Effective:	7/1/2010
Current TSS rate:	$ 222.62	/ ton	Effective:	7/1/2010

Conversion factor (mg/L to tons/CcF): 0.295

	Previous	New
Estimated BOD surcharge:	$ -	$ 2,110.10
Estimated COD surcharge:	$ 14,067.36	$ 31,036.12
Estimated TSS surcharge:	$ -	$ -
BOD/COD:	0.1	0.33

Use zero if BOD or COD = zero

	Previous	New	Change
Estimated annual surcharge:	**$ 14,067.36**	**$ 31,036.12**	**$ 16,968.76**

Comments:

6-30-11
Left Message
7-5-11 David agreed to new averages

First pass calculation, all data: ☐
First pass calculation, MSD data: ☐
First pass calculation, IND data: ☐
Calculation, final data: ☐

Water Consumption Data:

Reading Date	Consumption
4/1/2011	6613
3/1/2011	6301
2/1/2011	6406
1/1/2011	5832
12/1/2010	6358
11/1/2010	6357
10/1/2010	5974
9/1/2010	7646
8/1/2010	8652
7/1/2010	8861
6/1/2010	12098
5/1/2010	13351
4/1/2010	
Total =	94449

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL FACILITY REINSPECTION REPORT

Company: Bridgeton Landfill LLC Account #: 0511559802
Premise Address: 13570 St Charles Rk Rd Zip Code: 63044
MSD Classes: SIU ☒ CIU ☐ Surch ☒ Potential Toxic Waste ☒ Non-Toxic Proc Waste ☐
No Process Flow ☐ Multi-User ☐ Special Handling/Billing ☒
Company Representative: Dave Vasbinder
Title: EHS Manager Phone#: 314.739.1919
Inspector: Tom Boehm
Others Present: Randy Meibaum - Environmental Tech
Inspection Date: **3/29/11** Time: From 09:00 am To 10:30 am (Last Insp. 5/10/10)

NOTE: ALL ITEMS ARE TO BE COMPLETED BASED ON EVENTS SINCE LAST INSPECTION. ANSWERS ARE BASED ON INFORMATION OBTAINED OR PROVIDED BY COMPANY DURING INSPECTION, AS WELL AS INFORMATION IN FILE.

***** DATABASE ALSO UPDATED WITH APPROPRIATE CHANGES - see attached database reports *****

1. A. ARE THERE ADDITIONAL NON-STORMWATER ACCOUNT NUMBERS? Yes☐ No☒
   List them, note any changes: _____
   B. Did all acct no's have water usage on PIMS? Yes☒ No☐
   C. If no to B, explain: _____

2. PROCESSES & CLEANUP/WASHDOWN:

	Cont/ Batch		Water Used?	Frequency of discharge	Sample pt.
Closed sanitary landfill operations- leachate discharge through on-site AST > Westlink Pump Station	Cont		Yes	Daily, Precipitation dependent	008,007> san sewer
Trash transfer station and associated washdown (pumped from pits to leachate collection)	Batch		Yes	Weekly	008,007> san sewer
	(None)		N/A		
	(None)		N/A		
	(None)		N/A		
	(None)		N/A		

3. PRETREATMENT (other than grease traps) - describe:

	Sample pt.
Equalization, course screening, aeration	008,007

4. DOES COMPANY HAVE ANY GREASE TRAPS? Yes☐ No☒
If yes: A. List sample points: _____
B. What is the frequency for cleaning & maintenance? _____
C. Are any additives used in traps? Yes☐ No☐
D. If yes to C, was co. warned MSD will bill them for blockages they cause? Yes☐ No☐
E. Was co. informed that MSD performs separate grease trap inspections? Yes☐ No☐

5. HAS COMPANY CONSTRUCTED NEW BLDGS/ADDITIONS WITH SEWERS SINCE LAST INSP? Yes☐ No☒
If yes: A. Ask company: Did they notify MSD's Plan Review group? Unknown☐ Yes☐ No☐
B. If no or unknown, has inspector notified Plan Review group? Yes☐ No☐
C. Comments: _____

6. HAS COMPANY BEGUN DISCHARGING ANY NEW POLLUTANTS SINCE THE LAST INSP? Yes☐ No☒
If yes: A. List pollutants & process: _____
B. Will MSD STP exceed existing NPDES discharge limit(s)? Yes☐ No☐
C. Will MSD STP's discharge exceed 0.1 mg/l for any new pollutant? Yes☐ No☐
(MSD must notify MDNR if B or C is yes and discharge will continue.)
D. Comments: _____

7. ARE THERE ANY FEDERALLY REGULATED (40 CFR 405-471) OPERATIONS? Yes☐ No☒

If yes: A. List reg. & describe (including any discharge):

_____

8. DOES CATEGORICAL WASTEWATER COMBINE WITH NON-CAT. WW PRIOR TO SAMPLING? Yes☐ No☒

If yes: A. At which points? _____

B. Current applied factor: _____ Is it correct? Yes☐ No☐

C. If no, list correct factor/explain? _____

9. IS ANY WASTEWATER SUBJECT TO PRODUCTION OR MASS BASED STANDARDS? Yes☐ No☒

If yes: A. At which points? _____

B. Since calculation of the current limits, has the long term avg production rate or discharge volume changed by 20% or more? Yes☐ No☐

C. If yes to B, explain: _____

10. ARE ANY RADIOACTIVE MATERIALS HANDLED? Yes☒ No☐

If yes: A. Describe operations & disposal: 2 radiation waste cells are present in the landfill; they are not lined and no leachate is collected from these cells;

B. Does company have MSD authorization for disposal to sewer? NA☐ Yes☒ No☐

C. Most recent authorization date: 10/15/06

D. Amount discharged in most recent complete calendar year: 20.83 mCi; they are limited to 160 mCi/year;

11. DOES PROCESS or P&E WASHDOWN WATER USE APPEAR EXCESSIVE? Yes☐ No☒

A. Explain how use was verified & any needed changes:
No excess usage noted during inspection; washdown of the transfer station to leachate treatment system;

12. BASED ON OBSERVATIONS DURING INSPECTION, DOES COMPANY APPEAR TO HAVE SOME WATER THAT IS NOT DISCHARGED TO SEWER? Yes☐ No☒

If yes: A. Describe: They have ceased spraying water on the gravel roads because they no longer have the traffic volume on site that warranted the practice;

B. Was "Return Factor Program" brochure given to company? Yes☒ No☐
(regardless of whether some water is not discharged to sewer)

13. HAS COMPANY EXCEEDED ORDINANCE DISCHARGE LIMITS SINCE LAST INSPECTION OR WITHIN THE LAST 12 MONTHS (if last insp <12 months ago)? Yes☐ No☒

If yes: A.

Pollutant	When	Sample Points	Is problem resolved? Yes/No	Describe
			N/A	
			N/A	
			N/A	
			N/A	
			N/A	

B. Comments: _____

14. HAS COMPANY EXCEEDED CATEGORICAL PRETREATMENT LIMITS SINCE THE LAST INSPECTION OR WITHIN THE LAST 12 MONTHS? NA☒ Yes☐ No☐

If yes: A.

Pollutant	When	Sample Points	Is problem resolved? Yes/No	Describe
			N/A	
			N/A	
			N/A	
			N/A	
			N/A	

B. Comments: _____

15. HAVE THERE BEEN ANY PROBLEM DISCHARGES SINCE LAST INSPECTION? Yes☐ No☒

If yes: A. Upsets? ☐ Bypasses of pretreatment facilities?☐
Spills? ☐ Slug discharges? ☐ Other? _____
B. Explain any marked: _____

16. COULD SPILLS OR LEAKS OF PROCESS TANKS, STORED WASTES, OR STORED CHEMICALS EASILY REACH SANITARY SEWERS OR STORM DRAINS? Yes☐ No☒

If yes: A. What needs to be done?
_____

If no: B. How are they controlled?
Diesel AST is contained; leachate AST contained; no other volumes of concern on site; large amount of dirt would absorb any spillage;

17. BASED ON OBSERVATIONS DURING INSPECTION, ARE THERE ANY AREAS WHERE COMPANY ACTIVITIES APPEAR TO IMPAIR STORMWATER RUNOFF? Yes☐ No☒

If yes: A. Describe: Typical landfill runoff that is regulated via NPDES;
B. What needs to be done? _____
C. Was "Illicit Stormwater Discharges" brochure given to company? Yes☒ No☐
(regardless of whether there are any problem areas)

18. DOES COMPANY HAVE ANY SPILL CONTROL OR SLUG DISCHARGE CONTROL PLANS? Yes☒ No☐

If yes: A.

	Title	Last Update	Update needed? Explain if yes
1.	SPCCP	1/1/03	No
2.			N/A

B. Are any Plans needed (in addition to those listed in Part A)? Yes☐ No☒
(If yes, write company and request)

19. DOES COMPANY HAVE ANY MAINTENANCE SHOP PARTS WASHERS? Yes☐ No☒

If yes: A. Parts washer solvent name: _____
B. Priority pollutants (or "none"): _____
C. How is spent solvent disposed? _____
(Parts washer solvents are not included in database's priority pollutants list, nor monitored for unless conditions show potential discharges)

20. ARE ANY ORGANICS OR SOLVENTS USED (OTHER THAN IN PARTS WASHERS)? Yes☒ No☐

If yes: A.

Solvent name/ components	Used for?	413/433/469 Process?	How disposed?	Priority Pollutant?
Diesel (BTEX and naphthalene) (500 gallon double wall)	Fuel	Yes☐ No☒	Burned	Yes☒ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐

21. DOES COMPANY HAVE A 413/433/469-REGULATORY "SOLVENT MANAGEMENT PLAN"? Yes☐ No☒
(only applies if company uses solvents in 413/433/469 processes)

If yes: A. Is it part of a Spill/Slug Control Plan listed above? Yes[1.☐ 2.☐] No☐
B. If no to A, date of last update for SMP: _____
C. Is there a copy of the Spill/Slug Plan or SMP in the files? Yes☐ No☐
D. Does SMP address all 413/433/469 solvents? Yes☐ No☐
(If no to C or D, write company and require submittal and/or update)

22. ARE EMERGENCY NOTIFICATION PROCEDURES POSTED THAT INCLUDE MSD CONTACTS? Yes☐ No☒
A. Was company provided notification cards & told to post where emergency response personnel can locate them? Yes☒ No☐
(Must post if co. generates process wastewater or stores chemicals of concern)

23. IS COMPANY REQUIRED TO SELF-MONITOR ANY OF THEIR DISCHARGES? Yes☒ No☐

If yes: A. Is requirement contained in permit ☒ or other document ☐.

B. If other document, date & description: _____

C. How frequently is sampling required? Quarterly

D. How frequently are reports required? Quarterly

E. Have reports been on-time, complete & signed by proper person? Yes☒ No☐

F. If no, explain: _____

24. DOES COMPANY SELF-MONITOR ITS WASTEWATER DISCHARGE? Yes☒ No☐

If yes: A. Is the self-monitoring required by MSD? Yes☒ No☐

B. Does sample collection time period match co's production shifts? Yes☒ No☐

C. Are representative grab/comp samples collected? Yes☒ No☐

D. Are EPA-approved 40 CFR 136 wastewater test methods used? Yes☒ No☐

E. If no to B, C, or D, explain needed changes: 24 hour comps used for this potential 24 hour discharge;

25. DOES CO. CONTINUOUSLY MONITOR AT SAMPLE POINT AND KEEP A PERMANENT RECORD FOR: pH ☐, TEMP ☐, LEL ☒? Yes☒ No☐

If yes: A. At which SPs? They monitor for LEL at their leachate treatment tank; it is collected and sent to their flare but contact stated it never approaches the LEL;

B. Does company submit quarterly summaries? Yes☐ No☒

C. If no, explain: Permit does not require it;

26. DOES MSD SPLIT SAMPLES WITH THE COMPANY? Yes☐ No☒

If yes: A. Is company having the samples analyzed Yes☐ No☐

B. How does company insure proper preservation, holding times & analytical methods? _____

C. Has company submitted results of all split sample analyses since the last insp? Yes☐ No☐

D. Have results been submitted within 28 days of the collection's calendar quarter? Yes☐ No☐

E. If no to C, or D, explain: _____

F. Does company still want to split samples? Yes☐ No☐

G. Comments: _____

27. IS COMPANY UNDER ANY ENVIRONMENTAL ENFORCEMENT ORDERS OR REQUIREMENTS TO SUBMIT COMPLIANCE SCHEDULE REPORTS? Yes☐ No☒

If yes: A. Type and date: _____

B. Have the reports & actions been on-time & complete? Yes☐ No☐

C. If no, explain: _____

28. ASK COMPANY: IS CO. IN COMPLIANCE W/APPLICABLE NESHAP REGS FOR WW DISCHARGES? Yes☒ No☐
[Some MDNR-issued Title V air permits for specific processes allow pre-approved WW discharge.] [City/County-issued air permits are not NESHAP permits.]

If no: A. Describe: _____

B. Was MDNR Air Pollution Control informed? (must be done) Yes☐ No☐

29. DOES COMPANY RETAIN ALL WASTEWATER RECORDS FOR AT LEAST 5 YEARS? Yes☒ No☐

If no: A. How long does company retain records? _____

B. Was company told to retain for at least 5 years, per ordinance? Yes☐ No☐

C. Where are they kept? In contact's office;

30. DO MSD CLASSIFICATIONS NEED TO BE REVISED? Yes☐ No☒

If yes: A. Indicate correct classifications:

SIU ☐ CIU ☐ Surch. ☐ Potential Toxic Waste ☐ Non-Toxic Proc Waste ☐
No Process Discharge ☐ Multi-User ☐ Special Handling/Billing ☐

B. Explain changes: _____

31. IS COMPANY CLASSIFIED AS "Special Handling/Billing"? Yes☒ No☐

If yes: A. Why? Billing is based upon the amount of leachate generated in the landfill;

B. Are any changes needed to reasons/details? Yes☐ No☒

C. If yes, explain: _____

D. Were company records reviewed & verified for special handling/billing reports? NA☐ Yes☐ No☒

32. SAMPLE POINTS DJ(y/n)

SP #	008	Fed.Reg.		Components:	Leachate, P+E washdown of transfer station	No
SP #	007	Fed.Reg.		Components:	Same as 008	No
SP #		Fed.Reg.		Components:		N/A
SP #		Fed.Reg.		Components:		N/A
SP #		Fed.Reg.		Components:		N/A

33. ARE ANY SAMPLE POINTS TRAPPED VENTS? Yes☐ No☒

If yes: A. List SPs: _____

B. Was co. informed that T-vents are preferred, and told why? Yes☐ No☐

34. ARE DISCHARGES AT ANY SPs SMALL/IRREGULAR ENOUGH TO ALLOW GRAB SAMPLES? Yes☐ No☒

If yes: A. List SPs and reasons: _____

35. ARE THERE ANY UNSAMPLED DISCHARGES? (list each lateral separately) Yes☐ No☒

Dummy SP #		Components:	See comments
Dummy SP #		Components:	

36. DO ANY SAMPLE POINTS (including Unsampled/Dummy SPs) RECEIVE STORMWATER? Yes☒ No☐

If yes: A. List Sample Points: Yes, indirectly through leachate collected under the landfill;

37. WERE ALL SAMPLE POINTS (except Dummy SPs) OPENED & INSPECTED? No SPs☐ Yes☐ No☒

A. If any SPs cannot be located or opened, explain: I did not have a key for 007; 008 is defined as a 1/2" flex hose and had no obvious problems;

B. If any SP descript's need to be changed, explain: _____

C. Was ANY grease or other problem/debris observed in any SP? Yes☐ No☒

D. If yes to C, list SPs & describe: _____

E. If yes to C, was company directed to take corrective actions? Yes☐ No☐

38. REVIEW THE SAMPLE POINT MAP! Last map revision date: 1/27/09

A. Is the map correct and accurate in all its details? Yes☒ No☐

B If no, what changes are needed: _____

39. DO INSTRUCTIONS FOR "Contact Prior to Sampling" OR FIELD VISIT "Special Instructions" NEED REVISION? Yes☐ No☒

If yes: A. List needed changes: _____

USE THIS SPACE FOR ANY OTHER COMMENTS/OBSERVATIONS PERTINENT TO YOUR INSPECTION OF THIS SITE.

- As stated in the previous inspection, they began covering the radioactive waste cells but new management at MoDNR, company management and lawyers do not agree; he does not know when this will take place;
- Others that rent space at this site use holding tanks to collect waste;
- The date used for in Q.10 (10/15/06) is the date of the Permit modification when radionuclides were added to Sample Point Monitoring Requirements;
- The leachate collection and PT AST is under vacuum for any gas build up and sent to flare;

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL DATA SHEET - FACILITY INFORMATION

INDUSTRY NAME **BRIDGETON LANDFILL LLC**
PRIMARY MSD ACCOUNT NO. **0511559802**

Premise Address 13570 St. Charles Rock Road
Bridgeton MO. 63044

INDUSTRIAL USER CLASSIFICATIONS

03/06/1997	SIU
05/17/2007	SCH
03/06/1997	PTW
01/19/2006	SPC

WUNNENBERG INFO.

Base Map 10O3
Wun: St. Louis City & Co.
Grid: W 09 Page 7

SIU CRITERIA

PR25 Process Disch => 25,000 GPD

ENERAL INFORMATION

Office Mailing Address
13570 St. Charles Rock Road
Bridgeton, MO. 63044

Billing Address
13570 St. Charles Rock Road
Bridgeton, MO. 63044

INSPECTION INFORMATION

Next Due	Insp Rslt	
03/29/2011	RIN	Tom Boehm

PERMIT INFORMATION

Issue Date: 12/01/2010
Expire Date: 11/30/2015
Extended Date:
Writer Mark A. Montagu

IUQ INFORMATION

IUQ Recvd Date: 06/12/2000
Reviewer: Fabian Grabski
IUQ Recvd Date: 06/06/2005
Reviewer: Martin Blecha
IUQ Recvd Date: 04/27/2010
Reviewer: Tom Boehm

CONTACTS

BILL	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext. 4464
FLD1	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext. 4464
	David Vasbinder	Environmental Manager	CELL	(314) 249-9404 Ext.
FLD2	Randy Meibaum	Operations Manager	OFF	(314) 739-1919 Ext. 101
	Randy Meibaum	Operations Manager	CELL	(314) 393-2613 Ext.
OFF1	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext. 4464
	David Vasbinder	Environmental Manager	CELL	(314) 249-9404 Ext.
OFF2	Randy Meibaum	Operations Manager	OFF	(314) 739-1919 Ext.
	Randy Meibaum	Operations Manager	CELL	(314) 393-2613 Ext.

PERATIONAL INFORMATION

Work Days: 5

				S	M	T	W	T	F	S
1	2	06:00AM	10.0	N	Y	Y	Y	Y	Y	N

Total Emp: 2 **Hrs:** 10.0

OTHER AGENCIES INFORMATION

11/28/1996	MDNR - Hazardous Waste Program	00925
06/29/1997	MDNR - Water Pollution Control Program	MO-0112771
06/30/1997	EPA - Hazardous Waste Program	MO-D980741805
09/28/2005	MSD - Billing Account Number	00039145

ON-SEWERED WASTE

On-Site Storage **On-Site Disposal** **Off-Site Disposal**

AW MATERIALS

EFF DATE	MATERIAL_DESCRIPTION	QUANTITY	UNIT

SIC INFORMATION

SIC	DESCRIPTION
4953	Refuse Systems

PRODUCTS

EFF DATE	DESCRIPTION	UNIT	AVG_PROD	MAX_PROD
05/07/2004	Closed lanfill			

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL DATA SHEET - FACILITY INFORMATION

INDUSTRY NAME **BRIDGETON LANDFILL LLC**
PRIMARY MSD ACCOUNT NO. **0511559802**

Premise Address 13570 St. Charles Rock Road
Bridgeton MO. 63044

SEWER ACCOUNTS

Sewer Accounts
0511559802

WATER CONSUMPTION AND WASTEWATER DISCHARGE

Start Date = 01/01/2009 12:00:00AM **End Date =** 12/31/2011 12:59:59PM

Acct. No.			Consumption			Wdays	Cdays	Discharge	
0511559802			**CCF's**	**Gallons**				**Gal/ Wday**	**Gal/ Cday**
0511559802	08/08/2007	04/13/2009	216	216	A	439	615	615	
0511559802	04/14/2009	05/12/2009	182	398		21	29	644	
0511559802	05/13/2009	06/10/2009	168	566		21	29	673	
0511559802	06/11/2009	07/13/2009	217	783		24	33	706	
0511559802	07/14/2009	08/12/2009	157	940		21	30	736	
0511559802	08/13/2009	09/11/2009	305	1,245		21	30	766	
0511559802	09/12/2009	10/12/2009	171	1,416		22	31	797	
0511559802	10/13/2009	11/11/2009	178	1,594		21	30	827	
0511559802	11/12/2009	12/10/2009	281	1,875		21	29	856	
0511559802	12/11/2009	01/13/2010	210	2,085		24	34	890	
0511559802	01/14/2010	02/10/2010	174	2,259		20	28	918	
0511559802	02/11/2010	03/10/2010	189	2,448		20	28	946	
0511559802	03/11/2010	04/13/2010	408	2,856		24	34	980	
0511559802	04/14/2010	05/12/2010	157	3,013		21	29	1,009	
0511559802	05/13/2010	06/10/2010	147	3,160		21	29	1,038	
0511559802	06/11/2010	07/13/2010	174	3,334		24	33	1,071	
0511559802	07/14/2010	08/11/2010	173	3,507		21	29	1,100	
0511559802	08/12/2010	09/13/2010	209	3,716		24	33	1,133	
0511559802	09/14/2010	10/12/2010	161	3,877		21	29	1,162	
0511559802	10/13/2010	11/10/2010	194	4,071		21	29	1,191	
0511559802	11/11/2010	12/10/2010	177	4,248		21	30	1,221	
0511559802	12/11/2010	01/12/2011	219	4,467		24	33	1,254	
0511559802	01/13/2011	02/10/2011	194	4,661		21	29	1,283	
0511559802	02/11/2011	03/10/2011	183	4,844		20	28	1,311	
RF	1.00	**Acct. Total**	4,844	3,623,564		938	1,311	3,863	2,764
		Facility Total	4,844						

CONNECTION and SAMPLE POINT INFORMATION

LATERAL NO.	**Lateral Type**	**DSMH**	**Treatment Area**	Missouri River
01	Sanitary Or Combined	10O3 014S	**Trunk Sewer**	Bonfils Pump Station

Description Leachate Pump Vault SW to MSD Westlink Pump Station

Sewer Route S to Westlink Pump Station # 811, S to Bonfils Trunk to FM East to POTW

SAMPLE POINT NO. 007 Ordinance **NPDES Outfall No.**

Description 14" pipe into Westlink Pump Station Wetwell, on S side

Discharge Components	**Process Description**	**Avg Flow**	**Unit**	**Max Flow**	**Unit**	**RUD**	**Effective Date**
Landfill Leachate	Same waste that flows through SP008	215,969	GPD		GPD	D	4/28/10
Plant & Equipment Wash	Transfer station	2,000	Gal/Wk	2,000	Gal/Wk	D	4/28/10
	Total Flow Avg =	**217,969**		**Max =**	**2,000**		

SAMPLE POINT NO. 008 Ordinance **NPDES Outfall No.**

Description 1/2" flexible sampling hose 5' above grade off of an 8" discharge pipe on N side of AST

Discharge Components	**Process Description**	**Avg Flow**	**Unit**	**Max Flow**	**Unit**	**RUD**	**Effective Date**
Plant & Equipment Wash	Transfer Station	2,000	GPD	2,000	GPD	D	4/28/10
Landfill Leachate		215,696	GPD		GPD	D	4/28/10
	Total Flow Avg =	**217,696**		**Max =**	**2,000**		

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL DATA SHEET - FACILITY INFORMATION

INDUSTRY NAME **BRIDGETON LANDFILL LLC**
PRIMARY MSD ACCOUNT NO. **0511559802**

Premise Address 13570 St. Charles Rock Road
Bridgeton MO. 63044

PRETREATMENT TYPES

SP	EFF_DATE	TYPE	DESCRIPTION
007	08/09/2007	DC22	Equalization
007	08/09/2007	DC11	Coarse Screening
007	05/18/2009	DC1	Aeration
008	08/09/2007	DC22	Equalization
008	05/18/2009	DC1	Aeration
008	08/09/2007	DC11	Coarse Screening

PRIORITY POLLUTANTS

Pollutant Description	Status	Pollutant Description	Status	Pollutant Description	Status
Naphthalene	KP	Ethylbenzene	KP	Cyanide (Total)	SP
Asbestos (Fibrous)	SP	Antimony (Total)	SP	Silver (Total)	SP
Selenium (Total)	SP	Copper (Total)	KP	Cadmium (Total)	SP
Beryllium (Total)	SP	Zinc (Total)	KP	Thallium (Total)	SP
Nickel (Total)	KP	Mercury (Total)	SP	Lead (Total)	KP
Chromium (Total)	KP	Arsenic (Total)	KP	Toluene	SP
Chlorobenzene	KP				

EXTRA STRENGTH SURCHARGE INFORMATION

05/19/2009	BOD	79
05/19/2009	COD	760
05/19/2009	TSS	50

PIMS FACILITY CONTACTS

For Account Number Selecte **0511559802** **BRIDGETON LANDFILL LLC**

Located at 13570 St. Charles Rock Road
Bridgeton MO 63044

Address Type / Contact Type	Contact Name		Contact Title	Phone Type	Number	Ext.
Billing Address						
Billing Contact	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	4464
Office Mailing Address						
Office Contact - Primary	David	Vasbinder	Environmental Manager	CELL	(314)249-9404	
Office Contact - Primary	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	4464
Office Contact 1st Alt	Randy	Meibaum	Operations Manager	CELL	(314)393-2613	
Office Contact 1st Alt	Randy	Meibaum	Operations Manager	OFF	(314)739-1919	
Premise Address						
Field Contact - Primary	David	Vasbinder	Environmental Manager	CELL	(314)249-9404	
Field Contact - Primary	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	4464
Field Contact 1st Alt	Randy	Meibaum	Operations Manager	CELL	(314)393-2613	
Field Contact 1st Alt	Randy	Meibaum	Operations Manager	OFF	(314)739-1919	101

MSD 024166

PIMS
REPORT OF FIELD SAMPLING REQUIREMENTS
BRIDGETON LANDFILL LLC

Account No Entered **0511559802**

SPN	PREMISE ADDRESS	CITY	ST	ZIP
	13570 St. Charles Rock Road	Bridgeton	MO	63044

007 **Project Code:** **IM = IPD - Company - MSD**

Pollutant Group	Poll Code	Pollutant Description	Frequency	Sample Type	End Date
	T205000	Ammonia (as N)	Once/3 mo	Grab	06/30/2011
	T208000	Biochemical Oxygen Demand (5 Day)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T213000	Chemical Oxygen Demand	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T234000	Oil and Grease (Total)	Once/3 mo	Grab	06/30/2011
	T237000	pH	Once/3 mo	Grab	06/30/2011
	T247000	Temperature	Once/3 mo	Grab	06/30/2011
	T256000	Total Suspended Solids	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T257000	Total Phenols	Once/3 mo	Grab	06/30/2011
	T304000	Antimony (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T306000	Arsenic (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T317000	Beryllium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T327000	Cadmium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T335000	Chromium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T339000	Copper (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T340000	Cyanide Amenable to Chlorination	Once/3 mo	Grab	06/30/2011
	T368000	Lead (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T370000	Mercury (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T377000	Nickel (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T391000	Selenium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T393000	Silver (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T396000	Thallium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
	T403000	Zinc (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
'henolic Organics - Acids	T991000	Phenolic Organics - Acids	Once/3 mo	Comp-Time 04 Hrs	06/30/2011
'CBs	T992000	PCBs	Once/year	Comp-Time 04 Hrs	03/31/2012
;emi-Volatile Organics - Base/Neutrals	T994000	Semi-Volatile Organics - Base/Neutrals	Once/year	Comp-Time 04 Hrs	03/31/2012
/olatile Organics	T996000	Volatile Organics	Once/year	Grab	03/31/2012

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SR
4-22

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

April 21, 2011

Dear Mr. Rehmer:

First Quarter 2011 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-2

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the First Quarter 2011 leachate sampling and analysis report for the Bridgeton Landfill. On March 15, 2011 and March 16, 2011, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-2. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the First Quarter 2011 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for January, February, and March 2011.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Matt Stewart
Staff Geologist

Ward E. Herst
Managing Partner

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4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

Cc: *David Vasbinder, Republic Services, Inc.*
John Haasis, St. Louis County Department of Health
Linda Wegrzyn, Missouri Department of Natural Resources

Attachments: *Attachment 1 – Metropolitan St. Louis Sewer District Industrial User Self Monitoring Reports*
Attachment 2 – Calculation of Discharged Activity
Attachment 3 – Heritage Environmental Laboratories, LLC, Laboratory Analytical Report
Attachment 4 – TestAmerica, Inc. Laboratory Analytical Report
Attachment 5 – Monthly Leachate Discharge Volume Records Provided by Bridgeton Landfill

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: 0511559802-2 Effective Date: 12/1/2010 Expiration Date: 11/30/2015

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☑(JAN-MAR) ☐(APR-JUNE) ☐(JULY-SEPT) ☐(OCT-DEC)

Samples Collected By: **Matt Stewart**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc.**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS	⇨	008						
DATES ON WHICH SAMPLES WERE COLLECTED	⇨	3/15/2011 and 3/16/2011						
TIMES AT WHICH SAMPLES WERE COLLECTED	⇨	1136, 1640, 0722, 1136						
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW	***	E	152,732					GPD
Biochemical Oxygen Demand	***	C	390					mg/L
Chemical Oxygen Demand	***	C	1400					mg/L
Oil and Grease	200	G	12.6					mg/L
pH Acidic (<7)	5.5	G	6.92					SU
pH Basic (≥7)	11.5	G						SU
Temperature	60	G	17.3					°C
Total Suspended Solids	***	C	33					mg/L
Ammonia (as N)	***	C	170					mg/L
Arsenic (Total)	0.4	C	NR					mg/L
Cadmium (Total)	0.7	C	NR					mg/L
Chromium (Total)	5.0	C	NR					mg/L
Copper (Total)	2.7	C	ND					mg/L
Lead (Total)	0.4	C	NR					mg/L
Mercury (Total)	0.01	C	NR					mg/L
Nickel (Total)	2.3	C	0.034					mg/L
Zinc (Total)	3.0	C	ND					mg/L
Total Toxic Organics	5.844	G	NR					mg/L
Gross Alpha	***	C	U					pCi/L
Gross Beta	***	C	84 ± 14					pCi/L
Gross Gamma (as Cesium-137)	***	C	U					pCi/L
Radium – 226	***	C	4.6 ± 1.1					pCi/L
Radium – 228	***	C	U					pCi/L
Uranium (Total)	***	C	16.8 ± 2.3					µg/L

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Notes:
ND = Non-Detect
NR = Not required during this quarterly event
U = Result is less than sample detection limit

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS**.

NONE

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below: 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. Print or type name of signing official: **David Vasbinder** Title: **Environmental Manager** Telephone: **314-744-8166** Signature: Date: 4/20/2011

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-2

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: [X] (Jan-Mar) [ ] (Apr-Jun) [ ] (July-Sept) [ ] (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	Not Applicable – Constituent Not Detected
Gross Beta	4.46×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	2.44×10^8
Radium - 228	Not Applicable – Constituent Not Detected
Total Activity Discharged :	4.70×10^9 pCi

= 0.0047 Ci
= 4.7 mCi

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

[X] DV I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager

Telephone: 314-744-8166

Signature: [signature]

Date: 4/20/2011

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.B.2 of the Bridgeton Landfill MSD Permit (Permit 0511559802-2), each quarterly discharge report shall specify the activity discharged to the sewer system by radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the First Quarter 2011 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\text{Discharged Activity} = \text{Activity Concentration} \times \text{Discharged Volume}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the First Quarter 2011 monitoring period.

Constituent	Result	Units
Gross Alpha	U	pCi/L
Gross Beta	84 ± 14	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	4.6 ± 1.1	pCi/L
Radium – 228	U	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the First Quarter 2011 monitoring period:

- January 2011: 4,712,812 gallons
- February 2011: 4,496,670 gallons
- March 2011: 4,826,686 gallons

Summation of the monthly volumes provides the total volume discharged during the First Quarter 2011 period:

$$4{,}712{,}812\ gal + 4{,}496{,}670\ gal + 4{,}826{,}686\ gal = 14{,}036{,}168\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

$$14{,}036{,}168\ gal \times \frac{3.785\ L}{gal} = 53{,}126{,}896\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Beta, multiply the activity concentration by the discharged volume:

$$\frac{84\ pCi}{L} \times 53{,}126{,}896\ L = 4.46 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{4.6\ pCi}{L} \times 53{,}126{,}896\ L = 2.44 \times 10^{8}\ pCi$$

Summation of the two (2) results yields the total discharged activity for the First Quarter 2011 reporting period:

$$4.46 \times 10^{9}\ pCi + 2.44 \times 10^{8}\ pCi = 4.70 \times 10^{9}\ pCi$$

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Quality Assurance Report Package # 61273

HERST AND ASSOCIATES

JON WILKINSON
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Project : MO-ALLIED-BRIDGETON LANDFILL
LEACHATE - BRIDGETON LANDFILL

Sampled : 16-MAR-11

Sample Range : A910754

Approved by: CHRISTOPHER BOYLE - Project Manager

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 West Morris Street
Indianapolis, Indiana 46231
Phone: (317) 243-8304
Fax : (317) 486-5095

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MSD 024176

1 01068698

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231
www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I - 58082

Customer name/number: Allied Waste Systems | Submitter # 8945
Project Name: Leachate-Bridgeton Landfill 1211
Z Quote No: Z139877 (Given to you by your contact)
PO No. or Project/Activity ID:
PRINT HERITAGE TSR NAME:

CUSTOMER STATUS: New / Existing
If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Matt Stewart, Herst & Associates, Inc.

Analyses Requested (Note special detection limits or methods)

Send Report To:
Co: Herst & Associates, Inc.
Add: 4631 N. St. Peters Parkway
St. Charles, MO 63304
Attn: Ward Herst
Phone: (636) 939-9111
Fax: (636) 939-9757
E-mail: labdata@herstassociates.com

Sample Turn Around Time
Standard: X Rush Date ___/___/___ Mo Day Yr
(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z139877	Remarks:	Lab use only Sample No.
3/15-16/11	1136, 1640, 0722, 1136 AM PM	X		Outfall 008	L	4	X	L= Leachate	A910754
3/16/11	1136 AM PM		X	Outfall 008	L	2	X		1
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Matt Stewart	3/16/11 / 1830	Fed Ex # 9848 0467 6681
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/	
Received for Lab by: (Signature)	Date 3/17/11 Time 0810	Temp. 0.2 °C ROI: Yes / No

Laboratory use only

	Yes	No
Custody seals present/intact?	–	
Broken containers?		–
COC agree with sample labels?	–	
Correct containers for testing?	–	
Headspace issues acceptable?	–	
Holding time(s) acceptable?	–	
Preservative pH's acceptable?	–	
Was pH left unadjusted?	–	

Comments: * Short Hold
3/15/11 1136 1640
3/16/11 0722 1136
3/16/11 @ 1136
pH: 6.92 su, Cond: 5270 µs
Temp: 17.3°C, Turb: 28.08 NTU

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	17-MAR-11	A910754
	Completed	**PO Number**
	05-APR-11	4733-11001-8 (2011)
	Printed	**Sampled**
	05-APR-11	16-MAR-11 11:36

Report To	Bill To
JON WILKINSON HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 NORTH OUTER ROAD ST. CHARLES, MO 63304	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 61273
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
PERMIT: 830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: J. CROFFIE Analysis Date: 18-MAR-11 12:15 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	390	2	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: J. CROFFIE Analysis Date: 24-MAR-11 15:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	1400	20	mg/L

1:2 Dilution.

Sample exhibits high spike recovery. Spike analyzed twice.

Results for this sample are estimated.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: B. NDABAMBI Analysis Date: 28-MAR-11 11:00 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	12.6	5.0	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: S. BOXUM Analysis Date: 30-MAR-11 10:30 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		

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FINAL VOLUME	250		mL

The prep analyst decreased the initial weight/volume due to the matrix of the sample and/or a strong odor.

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 04-APR-11 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	170	2.5	mg/L

1:5 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: S. BOXUM Analysis Date: 22-MAR-11 13:00 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	33	1	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: K. KAMARA Analysis Date: 18-MAR-11 09:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 19-MAR-11 07:41 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 19-MAR-11 07:41 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	34	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 19-MAR-11 07:41 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	20	ug/L

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Sample ID: A910754 OUTFALL 008

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B, 19TH ED.			NELAC:Y
Analysis Date: 16-MAR-11	Instrument: FIELD		Test: G607.2.0
Parameter	Result	Det. Limit	Units
PH	6.92	0.1	Std. Units

FIELD TEMPERATURE SM 2550 B, 19TH ED.			NELAC:N
Analysis Date: 16-MAR-11	Instrument: FIELD		Test: G603.1.0
Parameter	Result	Det. Limit	Units
TEMPERATURE	17.3		Degrees C

FIELD SPECIFIC CONDUCTANCE EPA 120.1			NELAC:Y
Analysis Date: 16-MAR-11	Instrument: FIELD		Test: G604.1.0
Parameter	Result	Det. Limit	Units
CONDUCTIVITY	5270	1.0	umHOS/cm

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .2 C.
Sample chain of custody number 58082.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.
IL ELAP / NELAP Accreditation # 100401 Indiana SDWA Lab Accred. No. C-49-01

Approved by: CHRISTINE SARKAN 05-APR-11

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MSD 024179

Herst & Associates, Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F1C160545-001
Work Order: MFQAD
Matrix: WATER

Date Collected: 03/16/11 1136
Date Received: 03/16/11 1239

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 1075316	Yld % 64
Radium 228	1.8	U	1.4	1.0	2.3	03/16/11	03/31/11
Gross Alpha/Beta EPA 900				pCi/L		Batch # 1082407	Yld %
Gross Alpha	3	U	13	3	24	03/24/11	03/28/11
Gross Beta	**84**		**14**	4	12	03/24/11	03/28/11
Total Uranium by KPA ASTM 5174-91				ug/L		Batch # 1087193	Yld %
Total Uranium	16.8		2.3	50.0	15	03/28/11	03/30/11
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 1075317	Yld % 74
Radium (226)	4.6		1.1	1.0	0.7	03/16/11	03/31/11
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 1080310	Yld %
Cesium 137	0.3	U	6.0	20.0	12	03/21/11	03/28/11

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NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

FIC 160 545

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Herst & Associates, Inc.	Project Manager: Ward Herst	Date: 3/16/11	Chain of Custody Number: 127786
Address: 4631 N. St. Peters Parkway	Telephone Number (Area Code)/Fax Number: (636) 939-9111 / (636) 939-9757	Lab Number:	Page 1 of 1
City: St. Charles, State: MO, Zip Code: 63304	Site Contact: Dave Vasbinder	Lab Contact: Kay Clay	
Project Name and Location (State): Bridgeton IQ II Leachate	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Ra 226	Ra 228	Uranium	Gross Alpha	Gross Beta	Gross Gamma	Special Instructions/ Conditions of Receipt
Outfall 008	3/15-16/11	1136/1640 0712/1136		X					X				X	X	X	X	X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Std

QC Requirements (Specify):

1. Relinquished By: Matt Stewart	Date: 3/16/11	Time: 1239	1. Received By:	Date: 3/16/11	Time: 1239
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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Lot F1C160545

TestAmerica St. Louis

MSD 024181

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F1C160545

CONDITION UPON RECEIPT FORM

Client: Hearst + Ass
Quote No: 49794
COC/RFA No: 127786

Initiated By: AB Date: 3-16-11 21 Time: ~~0916~~ 12

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*		Sample Temperature (s):**	
1.	6.	1. 2	6.
2.	7.	2.	7.
3.	8.	3.	8.
4.	9.	4.	9.
5.	10.	5.	10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y N	Are there custody seals present on the cooler?	8.	Y N	Are there custody seals present on bottles?
2.	Y N N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N N/A	Do custody seals on bottles appear to be tampered with?
3.	Y N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	Y N	Sample received with Chain of Custody?	11.	Y N	Sample received in proper containers?
5.	Y N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y N	Was sample received broken?	13.	Y N N/A	Was Internal COC/Workshare received?
7.	Y N	Is sample volume sufficient for analysis?	14.	Y N N/A	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:
received 1x4LP w/ pH ~ 7
Add nitric Kea 03-16-11
added HNO_3 used lot 511046

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Corrective Action:
☐ Client Contact Name: _____ Informed by: _____
☐ Sample(s) processed "as is"
☐ Sample(s) on hold until: _____ If released, notify: _____
Project Management Review: K. Cly Date: 03-17-11

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.
ADMIN-0004, REVISED 10/21/08 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

2011

Bridgeton Landfill LLC
Monthly Leachate Outfall Report

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	2/4/2011	4,712,812	152,026	630,055.08	6,300.55
February	2/28/2011	4,496,670	159,570	661,319.52	6,613.20
March	4/1/2011	4,826,686	155,700	645,278.88	6,452.79
April					
May					
June					
July					
August					
September					
October					
November					
December					

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March Monthly Precipitation 4.74 Inches

4/1/2011

REPUBLIC SERVICES, INC.

MAM
1/21/2011

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

January 12, 2011

Dear Mr. Rehmer:

Fourth Quarter 2010 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-2

Enclosed please find the above-referenced quarterly report for your use. If you have any questions, please contact me at 314.744.8166.

Sincerely,

Dave Vasbinder
Environmental Manager

Enclosure

Cc: Herst & Associates, Inc (w/o)
Bridgeton Landfill Operating Record

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13570 ST. CHARLES ROCK ROAD
BRIDGETON, MO 63044
314.739.5099 • Fax 314.739.2588
www.republicservices.com

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Personal Attention

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

January 12, 2011

Dear Mr. Rehmer:

Fourth Quarter 2010 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-2

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the Fourth Quarter 2010 leachate sampling and analysis report for the Bridgeton Landfill. On November 16, 2010 and November 17, 2010, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-2. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Fourth Quarter 2010 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for October, November, and December 2010.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

for Matt Stewart
Staff Geologist

Ward E. Herst
Managing Partner

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4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

Cc: *David Vasbinder, Republic Services, Inc.*
John Haasis, St. Louis County Department of Health
Linda Wegrzyn, Missouri Department of Natural Resources

Attachments:
Attachment 1 – Metropolitan St. Louis Sewer District Industrial User Self Monitoring Reports
Attachment 2 – Calculation of Discharged Activity
Attachment 3 – Heritage Environmental Laboratories, LLC, Laboratory Analytical Report
Attachment 4 – TestAmerica, Inc. Laboratory Analytical Report
Attachment 5 – Monthly Leachate Discharge Volume Records Provided by Bridgeton Landfill

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MAM 1/21/2011

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: 0511559802-2 Effective Date: 12/1/2010 Expiration Date: 11/30/2015

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐(JAN-MAR) ☐(APR-JUNE) ☐(JULY-SEPT) ☒(OCT-DEC)

Samples Collected By: **Neil Kostelecky**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc.**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨			008					
DATES ON WHICH SAMPLES WERE COLLECTED ⇨			11/16/2010 and 11/17/2010					
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨			1335, 1745, 0855, 1330					
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW	***	E	139,229					GPD
Biochemical Oxygen Demand	***		260					mg/L
Chemical Oxygen Demand	***		980					mg/L
Oil and Grease	200		ND < 5.0					mg/L
pH Acidic (<7)	5.5							SU
pH Basic (≥7)	11.5		7.58					SU
Temperature	60		22.3					°C
Total Suspended Solids	***		22					mg/L
Ammonia (as N)	***		230					mg/L
Arsenic (Total)	0.4		NR					mg/L
Cadmium (Total)	0.7		NR					mg/L
Chromium (Total)	5.0		NR					mg/L
Copper (Total)	2.7		0.110					mg/L
Lead (Total)	0.4		NR					mg/L
Mercury (Total)	0.01		NR					mg/L
Nickel (Total)	2.3		0.020					mg/L
Zinc (Total)	3.0		0.170					mg/L
Total Toxic Organics	5.52		NR					mg/L
Gross Alpha	***		15 ± 10					pCi/L
Gross Beta	***		48.2 ± 9.7					pCi/L
Gross Gamma (as Cesium-137)	***		U					pCi/L
Radium – 226	10		4.31 ± 0.76					pCi/L
Radium – 228	30		1.02 ± 0.47					pCi/L
Uranium (Total)	***		U					µg/L

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Notes:
ND = Non-Detect
NR = Not required during this quarterly event
U = Result is less than sample detection limit

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS**.

NONE

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below:
	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.
	Print or type name of signing official: **David Vasbinder**
	Title: **Environmental Manager** Telephone: **314-744-8166**
	Signature: Date: 1/9/2011

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-2

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☐ (Apr-Jun) ☐ (July-Sept) ☒ (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	7.90×10^8
Gross Beta	2.54×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	2.27×10^8
Radium - 228	5.37×10^7
Total Activity Discharged :	3.61×10^9 Pci

= 3.61 mCi

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

☒ I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager

Telephone: 314-744-8166

Signature: [signature]

Date: 1/9/11

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.B.2 of the Bridgeton Landfill MSD Permit (Permit 0511559802-2), each quarterly discharge report shall specify the activity discharged to the sewer system by radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Fourth Quarter 2010 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\text{Discharged Activity} = \text{Activity Concentration} \times \text{Discharged Volume}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Fourth Quarter 2010 monitoring period.

Constituent	Result	Units
Gross Alpha	15 ± 10	pCi/L
Gross Beta	48.2 ± 9.7	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	4.31 ± 0.76	pCi/L
Radium – 228	1.02 ± 0.47	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Fourth Quarter 2010 monitoring period:

- October 2010: 4,755,891 gallons
- November 2010: 4,362,325 gallons
- December 2010: 4,791,330 gallons

Summation of the monthly volumes provides the total volume discharged during the Fourth Quarter 2010 period:

$$4{,}755{,}891\ gal + 4{,}362{,}325\ gal + 4{,}791{,}330\ gal = 13{,}909{,}546\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

$$13{,}909{,}546\ gal \times \frac{3.785\ L}{gal} = 52{,}647{,}632\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Alpha, multiply the activity concentration by the discharged volume:

$$\frac{15\ pCi}{L} \times 52{,}647{,}632\ L = 7.90 \times 10^{8}\ pCi$$

Similarly, for Gross Beta:

$$\frac{48.2\ pCi}{L} \times 52{,}647{,}632\ L = 2.54 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{4.31\ pCi}{L} \times 52{,}647{,}632\ L = 2.27 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{1.02\ pCi}{L} \times 52{,}647{,}632\ L = 5.37 \times 10^{7}\ pCi$$

Summation of the four (4) results yields the total discharged activity for the Fourth Quarter 2010 reporting period:

$$7.90 \times 10^{8}\ pCi + 2.54 \times 10^{9}\ pCi + 2.27 \times 10^{8}\ pCi + 5.37 \times 10^{7}\ pCi = 3.61 \times 10^{9}\ pCi$$

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ENVIRONMENTAL SERVICES

Quality Assurance Report Package # 60800

HERST AND ASSOCIATES

JON WILKINSON
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Project : MO-ALLIED-BRIDGETON LANDFILL
LEACHATE - BRIDGETON LANDFILL

Sampled : 17-NOV-10

Sample Range : A899603

Approved by: CHRISTOPHER BOYLE - Project Manager

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 West Morris Street
Indianapolis, Indiana 46231
Phone: (317) 243-8304
Fax : (317) 486-5095

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01065484

HERITAGE ENVIRONMENTAL SERVICES, LLC.

COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231

www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I - 75392

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MSD 024193

Customer name/number: Allied waste Systems | Submitter # 8945

Project Name: Bridgeton Landfill

Z Quote No: Z139877 (Given to you by your contact)

PO No. or Project/Activity ID: 4th qtr 2010 Leachate

PRINT HERITAGE TSR NAME:

CUSTOMER STATUS: New / Existing

If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Neil Kostelecky

Analyses Requested (Note special detection limits or methods)

Send Report To:

Co: Herst & Associates

Add: 4631 N. St. Peters Parkway, St. Charles MO 63304

Attn: Ward Herst

Phone: (636) 939-9111

Fax: (636) 939-9757

E-mail:

Sample Turn Around Time

Standard: X Rush Date ___/___/___ Mo Day Yr

(Accelerated TAT subject to Additional Charge) (Date must be Accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z139877	Remarks:	Lab use only Sample No.
11/16-11/17/10	1335 1745 AM 0855 1350 PM	X		Outfall 008	Leachate	6	X	short holds	A899603
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								

Relinquished by: (Signature)	Date/Time 11/17/10 1700	Received by: (Signature) 11/17/10 1700 FedEx# 9848 0967 1613	
Relinquished by: (Signature)	Date/Time /	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time /	Received by: (Signature)	
Received for Lab by: (Signature)		Date 11-18-10	Temp. 1-4 °C
		Time 0830	ROI: ~~Yes~~ / No

Laboratory use only	Yes	No
Custody seals present/intact?	—	
Broken containers?		—
COC agree with sample labels?	—	
Correct containers for testing?	—	
Headspace issues acceptable?	—	
Holding time(s) acceptable?	—	
Preservative pH's acceptable?	—	
Was pH left unadjusted?	—	

Comments:

ORIGINAL

HERITAGE
ENVIRONMENTAL SERVICES

CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	18-NOV-10	A899603
	Completed	**PO Number**
	07-DEC-10	4337-10001-31
	Printed	**Sampled**
	07-DEC-10	17-NOV-10 13:30

Report To	Bill To
JON WILKINSON HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 NORTH OUTER ROAD ST. CHARLES, MO 63304	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 60800
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
PERMIT: 830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED — NELAC:Y

Analyst: J. CROFFIE — Analysis Date: 19-NOV-10 10:40 — Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	260	2	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) — NELAC:Y

Analyst: J. CROFFIE — Analysis Date: 02-DEC-10 17:05 — Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	980	20	mg/L

1:2 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A — NELAC:Y

Analyst: B. NDABAMBI — Analysis Date: 22-NOV-10 15:00 — Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	BDL	5.0	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: T. DRIGGERS — Analysis Date: 29-NOV-10 07:30 — Instrument: PREP — Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	250		mL
FINAL VOLUME	250		mL

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Sample ID: A899603 OUTFALL 008

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 29-NOV-10 07:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	230	5.0	mg/L

1:50 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: S. BOXUM Analysis Date: 19-NOV-10 15:10 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	22	1	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: K. KAMARA Analysis Date: 19-NOV-10 09:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 20-NOV-10 16:49 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	110	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 20-NOV-10 16:49 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	20	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 20-NOV-10 16:49 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	170	20	ug/L

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature 1.4 C.
Sample chain of custody number 75392.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

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Sample ID: A899603 OUTFALL 008

Sample Comments	
IL ELAP / NELAP Accreditation # 100401	Indiana SDWA Lab Accred. No. C-49-01

Approved by: CHRISTINE SARKAN 07-DEC-10

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Quality Assurance Report

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07-DEC-10

Service Location	Submitter
Heritage Environmental Services, LLC Commercial Laboratory Operations 7901 West Morris Street Indianapolis, IN 46231 (317) 243-8304	JON WILKINSON HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 ST. CHARLES, MO 63304

Sample ID	Client ID	Date/Time Sampled	Date Received	Date Released
A899603	OUTFALL 008.....	17-Nov-10 13:30	18-Nov-10	07-Dec-2010
	DESCRIPTION :	QUARTERLY LEACHATE		
	LOCATION :	BRIDGETON LANDFILL		
	PERMIT :	830871		

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NICKEL ICP EPA 200.7 REV. 4.4 **M422.3**
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R574440 Prep — Analyst: K KAMARA — Reviewer: S ENDERSEN — Run Date: 19-Nov-10 — Review Date: 19-Nov-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2378247	NA	Analytical Run: R574525							
LCS	Q2378248	SPEX	Analytical Run: R574525							
DUP02	Q2378249	A899665	Analytical Run: R574525							
SPI02	Q2378250	A899665	Analytical Run: R574525							
SAMPLE	A899603	Rep: 0	Analytical Run: R574525							

R574525 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 20-Nov-10 — Review Date: 22-Nov-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2378692	PERKIN ELE	NICKEL	0.005			0.00498	mg/L	99.6	
ICV01	Q2378691	PERKIN ELM	NICKEL	1			1.02	mg/L	102.0	
CDL01	Q2378683	INORGANIC	NICKEL	10			9.93	mg/L	99.3	
ICS-AB	Q2378665	PERKIN ELM	NICKEL	1.00			0.954	mg/L	95.4	
LCCV	Q2378694	INORGANIC	NICKEL	0.005			0.00507	mg/L	101.4	
BLA02	Q2378247	NA	NICKEL			<	0.00200	mg/L		
LCS	Q2378248	SPEX	NICKEL	0.5			0.500	mg/L	100.0	
SER01	Q2378689	A899665	NICKEL	0.00694		CNA	0.00853	mg/L		
DUP02	Q2378249	A899665	NICKEL	0.00694		CNA	0.00747	mg/L		
SPI02	Q2378250	A899665	NICKEL	0.00694	0.500		0.511	mg/L	100.8	
CCV	Q2378675	INORGANIC	NICKEL	5.00			5.04	mg/L	100.8	
BLA01	Q2378661	NA	NICKEL			<	0.00200	mg/L		
SAMPLE	A899603		See Certificate of Analysis, Rep: 0							
CCV	Q2378676	INORGANIC	NICKEL	5.00			5.08	mg/L	101.6	
BLA01	Q2378662	NA	NICKEL			<	0.00200	mg/L		
CDL01	Q2378682	INORGANIC	NICKEL	0.005			0.00536	mg/L	107.2	
ICS-AB	Q2378666	PERKIN ELM	NICKEL	1.00			0.962	mg/L	96.2	

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A **G166.0**

R574605 Analytical — Analyst: B NDABAMBI — Reviewer: P SPENCE — Run Date: 22-Nov-10 — Review Date: 23-Nov-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2379500		HEM, TOTAL (OIL AND GREASE)			BDL	5.0	mg/L		
LFB01	Q2379501		HEM, TOTAL (OIL AND GREASE)	40.0			37.5	mg/L	93.8	
DLFB01	Q2379502		HEM, TOTAL (OIL AND GREASE)	40.0			40.9	mg/L	102.2	8.6
SAMPLE	A899603		See Certificate of Analysis, Rep: 0							
SPI01	Q2379503	A899604	HEM, TOTAL (OIL AND GREASE)	3.16	53.3		56.0	mg/L	99.1	

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BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED — G801.4

R574768 Analytical — Analyst: J CROFFIE — Reviewer: E SOTKIEWICZ — Run Date: 19-Nov-10 — Review Date: 29-Nov-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCV	Q2381130		BIOCHEMICAL OXYGEN DEMAND	198			190	mg/L	96.0	
DUP01	Q2381132	A899568	BIOCHEMICAL OXYGEN DEMAND	200			200	mg/L		0
BLA01	Q2381133		BIOCHEMICAL OXYGEN DEMAND			BDL	2	mg/L		
SAMPLE	A899603		See Certificate of Analysis, Rep: 0							
BLA01	Q2381134		BIOCHEMICAL OXYGEN DEMAND			BDL	2	mg/L		
CCV	Q2381135		BIOCHEMICAL OXYGEN DEMAND	198			190	mg/L	96.0	

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. — G403.8

R574560 Analytical — Analyst: S BOXUM — Reviewer: P SPENCE — Run Date: 19-Nov-10 — Review Date: 22-Nov-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2379047		SUSPENDED SOLIDS			BDL	1	mg/L		
LFB01	Q2379048		SUSPENDED SOLIDS	130			121	mg/L	93.1	
DUP01	Q2379051	A899473	SUSPENDED SOLIDS	0		BDL		mg/L		
SPI01	Q2379054	A899518	SUSPENDED SOLIDS	45.8	65		121	mg/L	115.7	
DPS01	Q2379055	A899518	SUSPENDED SOLIDS	45.8	65		114	mg/L	104.9	9.8
SAMPLE	A899603		See Certificate of Analysis, Rep: 0							
LFB01	Q2379056		SUSPENDED SOLIDS	130			126	mg/L	96.9	
BLA01	Q2379057		SUSPENDED SOLIDS			BDL	1	mg/L		

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) — G301.1

R575049 Analytical — Analyst: J CROFFIE — Reviewer: P SPENCE — Run Date: 02-Dec-10 — Review Date: 03-Dec-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2383595		CHEMICAL OXYGEN DEMAND	200			206	mg/L	103.0	
CCV	Q2383597		CHEMICAL OXYGEN DEMAND	500			521	mg/L	104.2	
BLA01	Q2383598		CHEMICAL OXYGEN DEMAND			BDL	8	mg/L		
SAMPLE	A899603		See Certificate of Analysis, Rep: 0							
SPI01	Q2383599	A899137	CHEMICAL OXYGEN DEMAND	891	500		1570	mg/L	135.8	
DPS01	Q2383600	A899137	CHEMICAL OXYGEN DEMAND	891	500		1630	mg/L	147.8	8.5
CCV	Q2383601		CHEMICAL OXYGEN DEMAND	500			513	mg/L	102.6	
BLA01	Q2383602		CHEMICAL OXYGEN DEMAND			BDL	8	mg/L		

Q2383599 1:5 Dilution.
Q2383599 Sample exhibits high spike recovery. Spike analyzed twice.
Q2383599 Results for this sample are estimated.
Q2383600 1:5 Dilution.
Q2383600 Sample exhibits high spike recovery. Spike analyzed twice.
Q2383600 Results for this sample are estimated.

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COPPER ICP EPA 200.7 REV. 4.4 **M412.3**
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R574440 Prep — Analyst: K KAMARA — Reviewer: S ENDERSEN — Run Date: 19-Nov-10 — Review Date: 19-Nov-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2378247	NA	Analytical Run: R574525							
LCS	Q2378248	SPEX	Analytical Run: R574525							
DUP02	Q2378249	A899665	Analytical Run: R574525							
SPI02	Q2378250	A899665	Analytical Run: R574525							
SAMPLE	A899603	Rep: 0	Analytical Run: R574525							

R574525 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 20-Nov-10 — Review Date: 22-Nov-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2378692	PERKIN ELE	COPPER	0.01			0.0102	mg/L	102.0	
ICV01	Q2378691	PERKIN ELM	COPPER	1			1.02	mg/L	102.0	
CDL01	Q2378683	INORGANIC	COPPER	10			9.95	mg/L	99.5	
ICS-AB	Q2378665	PERKIN ELM	COPPER	0.500			0.542	mg/L	108.4	
LCCV	Q2378694	INORGANIC	COPPER	0.01			0.0102	mg/L	102.0	
BLA02	Q2378247	NA	COPPER			<	0.00400	mg/L		
LCS	Q2378248	SPEX	COPPER	0.25			0.255	mg/L	102.0	
SER01	Q2378689	A899665	COPPER	0		BDL		mg/L		
DUP02	Q2378249	A899665	COPPER	0		BDL		mg/L		
SPI02	Q2378250	A899665	COPPER	0	0.250		0.276	mg/L	110.4	
CCV	Q2378675	INORGANIC	COPPER	5.00			5.09	mg/L	101.8	
BLA01	Q2378661	NA	COPPER			<	0.00400	mg/L		
SAMPLE	A899603		See Certificate of Analysis, Rep: 0							
CCV	Q2378676	INORGANIC	COPPER	5.00			5.14	mg/L	102.8	
BLA01	Q2378662	NA	COPPER			<	0.00400	mg/L		
CDL01	Q2378682	INORGANIC	COPPER	0.01			0.0106	mg/L	106.0	
ICS-AB	Q2378666	PERKIN ELM	COPPER	0.500			0.551	mg/L	110.2	

ZINC ICP EPA 200.7 REV. 4.4 **M439.3**
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R574440 Prep — Analyst: K KAMARA — Reviewer: S ENDERSEN — Run Date: 19-Nov-10 — Review Date: 19-Nov-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2378247	NA	Analytical Run: R574525							
LCS	Q2378248	SPEX	Analytical Run: R574525							
DUP02	Q2378249	A899665	Analytical Run: R574525							
SPI02	Q2378250	A899665	Analytical Run: R574525							
SAMPLE	A899603	Rep: 0	Analytical Run: R574525							

R574525 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 20-Nov-10 — Review Date: 22-Nov-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2378692	PERKIN ELE	ZINC	0.0200			0.0185	mg/L	92.5	
ICV01	Q2378691	PERKIN ELM	ZINC	1			1.03	mg/L	103.0	

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ZINC ICP EPA 200.7 REV. 4.4 **M439.3**
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R574525 Analyst: J KRAMER Run Date: 20-Nov-10
Analytical Reviewer: S ENDERSEN Review Date: 22-Nov-10 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CDL01	Q2378683	INORGANIC	ZINC	10			9.88	mg/L	98.8	
ICS-AB	Q2378665	PERKIN ELM	ZINC	1.00			0.979	mg/L	97.9	
LCCV	Q2378694	INORGANIC	ZINC	0.0200			0.0187	mg/L	93.5	
BLA02	Q2378247	NA	ZINC			<	0.00800	mg/L		
LCS	Q2378248	SPEX	ZINC	0.5			0.503	mg/L	100.6	
SER01	Q2378689	A899665	ZINC	0		BDL		mg/L		
DUP02	Q2378249	A899665	ZINC	0		BDL		mg/L		
SPI02	Q2378250	A899665	ZINC	0	0.500		0.521	mg/L	104.2	
CCV	Q2378675	INORGANIC	ZINC	5.00			4.96	mg/L	99.2	
BLA01	Q2378661	NA	ZINC			<	0.00800	mg/L		
SAMPLE	A899603		See Certificate of Analysis, Rep: 0							
CCV	Q2378676	INORGANIC	ZINC	5.00			5.02	mg/L	100.4	
BLA01	Q2378662	NA	ZINC			<	0.00800	mg/L		
CDL01	Q2378682	INORGANIC	ZINC	0.0200			0.0188	mg/L	94.0	
ICS-AB	Q2378666	PERKIN ELM	ZINC	1.00			0.953	mg/L	95.3	

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. **G203.8**
Prep : AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

R574885 Analyst: T DRIGGERS Run Date: 29-Nov-10 Instrument: PREP
Prep Reviewer: P SPENCE Review Date: 30-Nov-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2382223		Analytical Run: R574887							
LFB02	Q2382224		Analytical Run: R574887							
SPI02	Q2382225	A899568	Analytical Run: R574887							
DPS02	Q2382226	A899568	Analytical Run: R574887							
SAMPLE	A899603	Rep: 0	Analytical Run: R574887							
DUP02	Q2382229	A899683	Analytical Run: R574887							

Q2382225 1:5 Dilution.
Q2382226 1:5 Dilution.

R574887 Analyst: T DRIGGERS Run Date: 29-Nov-10
Analytical Reviewer: P SPENCE Review Date: 30-Nov-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CDL01	Q2382256		NITROGEN, AMMONIA	0.100			0.118	mg/L	118.0	
ICV01	Q2382257		NITROGEN, AMMONIA	3.00			2.99	mg/L	99.7	
BLA02	Q2382223		NITROGEN, AMMONIA			BDL	0.10	mg/L		
LFB02	Q2382224		NITROGEN, AMMONIA	5.00			4.25	mg/L	85.0	
SPI02	Q2382225	A899568	NITROGEN, AMMONIA	12.3	4		16.8	mg/L	112.5	
DPS02	Q2382226	A899568	NITROGEN, AMMONIA	12.3	4		16.2	mg/L	97.5	14.3
CCVL	Q2382258		NITROGEN, AMMONIA	1.00			0.967	mg/L	96.7	
BLA01	Q2382259		NITROGEN, AMMONIA			BDL	0.10	mg/L		
SAMPLE	A899603		See Certificate of Analysis, Rep: 0							
DUP02	Q2382229	A899683	NITROGEN, AMMONIA	1.54			1.43	mg/L		7.4
CCVH	Q2382260		NITROGEN, AMMONIA	5.00			4.78	mg/L	95.6	
BLA01	Q2382261		NITROGEN, AMMONIA			BDL	0.10	mg/L		

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AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. **G203.8**
Prep : AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

R574887	Analyst: T DRIGGERS	Run Date: 29-Nov-10	
Analytical	Reviewer: P SPENCE	Review Date: 30-Nov-10	Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
Q2382225	1:5 Dilution.									
Q2382226	1:5 Dilution.									

RQL	Result Qualifier Definition
<	Less Than
BDL	Below Detection Limit
CNA	RPD Calculation Not Applicable, < DL

QC Type	Definition
DUP02	PREPPED DUPLICATE SAMPLE ANALYSIS
ICS-AB	INTERFERENCE CHECK SAMPLE AB
BLA01	CALIBRATION (INSTRUMENT) BLANK
LFB01	LABORATORY FORTIFIED BLANK
BLA02	PREPPED (CALIBRATION) BLANK OR METHOD BLANK
LCCV	LOW LEVEL CONTINUING CALIBRATION VERIFICATION
LICV01	LOW LEVEL CALIBRATION VERIFICATION DIFFERENT SOURCE
SER01	ICP SERIAL DILUTION
DLFB01	DUPLICATE LABORATORY FORTIFIED BLANK
ICV01	INITIAL CALIBRATION VERIFICATION DIFFERENT SOURCE
CDL01	DETECTION LIMIT STANDARD
CCVL	LOW CONTINUING CALIBRATION VERIFICATION
LFB02	LABORATORY FORTIFIED BLANK PREPPED
SPI02	PREPPED MATRIX SPIKE
DPS01	DUPLICATE MATRIX SPIKE
LCS	LABORATORY CONTROL SAMPLE PREPPED
DPS02	PREPPED DUPLICATE MATRIX SPIKE
CCVH	HIGH CONTINUING CALIBRATION VERIFICATION
CCV	CONTINUING CALIBRATION VERIFICATION
SPI01	MATRIX SPIKE
DUP01	DUPLICATE SAMPLE ANALYSIS

Approved By : CHRISTINE SARKAN

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TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Bridgeton Landfill

Lot #: F0K170562

Ward Herst

Herst & Associates Inc
4630 South Hwy 94
North Outer Road
St Charles, MO 63304

TESTAMERICA LABORATORIES, INC.

Kay Clay
Project Manager

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December 7, 2010

13715 Rider Trail North Earth City, MO 63045 tel 314.298.8566 fax 314.298.8757 www.testamericainc.com

Case Narrative
LOT NUMBER: F0K170562

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on November 17, 2010. This sample is associated with your Bridgeton Landfill project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted below.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. **TestAmerica St. Louis' Florida certification number is E87689.** The case narrative is an integral part of this report.

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All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances
Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Radium 226/Radium 228 Method: 903.0 MOD, 904 MOD

Sample aliquot was reduced due to high solid content. Sample also had a strong sulfur-like odor.

Due to possible matrix interference, an LCS and LCSD were analyzed instead of a sample dupliucate for Radium 226 and 228.
Affected Sample:
F0K170562 (1): OUTFALL 008

Gross Alpha/Beta Method: 900.0 MOD

The Gross Alpha and/or Beta reporting limit was not met due to a reduction of sample size attributed to the sample's high residual mass. The analytical results are reported.
Affected Sample:
F0K170562 (1): OUTFALL 008

Uranium by KPA Method: 5174-91

Batch 0334183
The sample was analyzed at a dilution due to the presence of matrix interferences which caused low sample correlations. The reporting limit has been adjusted for the dilution.
Affected Sample:
F0K170562 (1): OUTFALL 008

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METHODS SUMMARY

F0K170562

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
Radium-226 by GFPC	EPA 903.0 MOD	
Radium-228 by GFPC	EPA 904 MOD	
Total Uranium By Laser Ph osphorimetry	ASTM 5174-91	

References:

ASTM Annual Book Of ASTM Standards.

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

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SAMPLE SUMMARY

F0K170562

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L97GD	001	OUTFALL 008	11/17/10	13:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

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Herst & Associates, Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F0K170562-001
Work Order: L97GD
Matrix: WATER

Date Collected: 11/17/10 1330
Date Received: 11/17/10 1445

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 0322288	Yld %
Cesium 137	2.6	U	7.0	20.0	12	11/18/10	11/29/10
Gross Alpha/Beta EPA 900				pCi/L		Batch # 0327096	Yld %
Gross Alpha	15		10	3	13	11/23/10	11/29/10
Gross Beta	48.2		9.7	4.0	9.2	11/23/10	11/29/10
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 0321299	Yld % 92
Radium (226)	4.31		0.76	1.00	0.38	11/17/10	12/03/10
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 0321300	Yld % 84
Radium 228	1.02		0.47	1.00	0.66	11/17/10	12/03/10
Total Uranium by KPA ASTM 5174-91				ug/L		Batch # 0334183	Yld %
Total Uranium	13.9	U	1.9	100	31	11/30/10	12/02/10

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NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F0K170562
Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC		Prep Date	Analysis Date	Lab Sample ID
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	Batch #	0322288	Yld %			F0K180000-288B
Cesium 137	5.8	U	8.0	20.0	13		11/18/10	11/30/10	
Gross Alpha/Beta EPA 900			pCi/L	Batch #	0327096	Yld %			F0K230000-096B
Gross Alpha	0.29	U	0.44	3.00	0.74		11/23/10	11/29/10	
Gross Beta	-0.03	U	0.53	4.00	0.94		11/23/10	11/29/10	
Radium 226 by EPA 903.0 MOD			pCi/L	Batch #	0321299	Yld %	109		F0K170000-299B
Radium (226)	-0.018	U	0.073	1.00	0.16		11/17/10	12/03/10	
Radium 228 by GFPC EPA 904 MOD			pCi/L	Batch #	0321300	Yld %	101		F0K170000-300B
Radium 228	0.09	U	0.16	1.00	0.28		11/17/10	12/03/10	
Total Uranium by KPA ASTM 5174-91			ug/L	Batch #	0334183	Yld %			F0K300000-183B
Total Uranium	-0.0434	U	0.0054	1.00	0.31		11/30/10	12/02/10	

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

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Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F0K170562
Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ+/-)	MDC	% Yld	% Rec	Lab Sample ID / QC Control Limits
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	901.1 MOD			F0K180000-288C
Americium 241	141000	145000	12000	600		103	(84 - 113)
Cesium 137	53100	54200	3100	300		102	(85 - 110)
Cobalt 60	87900	89300	5000	200		102	(84 - 110)
	Batch #:	0322288		Analysis Date:	11/30/10		
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			F0K230000-096C
Gross Alpha	49.4	54.5	6.3	1.2		110	(69 - 128)
Gross Beta	66.8	71.5	6.0	1.1		107	(74 - 128)
	Batch #:	0327096		Analysis Date:	11/29/10		
Total Uranium by KPA ASTM 5174-91			ug/L	5174-91			F0K300000-183C
Total Uranium	40.0	45.2	5.5	0.3		113	(90 - 120)
Total Uranium	8.00	8.77	0.92	0.31		110	(90 - 120)
	Batch #:	0334183		Analysis Date:	12/02/10		

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NOTE(S)

MDC is determined by instrument performance only
Calculations are performed before rounding to avoid round-off error in calculated results

Laboratory Control Sample/LCS Duplicate Report

Radiochemistry

Client Lot ID: F0K170562
Matrix: WATER

Parameter		Spike Amount	Result	Total Uncert. (2 σ+/-)	% Yld	% Rec	QC Control Limits	Precision
Radium 226 by EPA 903.0 MOD			pCi/L	903.0 MOD				Lab Sample ID F0K170000-299C
Radium (226)		11.3	13.5	1.3	104	120	(71 - 126)	
	Spk 2	11.3	12.0	1.2	108	107	(71 - 126)	%RPD
		Batch #:	0321299		Analysis Date:		12/03/10	
Radium 228 by GFPC EPA 904 MOD			pCi/L	904 MOD				F0K170000-300C
Radium 228		5.90	5.71	0.66	94	97	(66 - 140)	
	Spk 2	5.90	5.93	0.67	100	100	(66 - 140)	%RPD
		Batch #:	0321300		Analysis Date:		12/03/10	

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NOTE(S)

Calculations are performed before rounding to avoid round-off error in calculated results

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: F0K090460 Date Sampled: 11/05/10
Matrix: WATER Date Received: 11/09/10

Parameter	Spike Amount	Spike Result	Total Uncert. (2σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2σ +/-)	QC Sample ID %YLD	%REC	QC Control Limits
Gross Alpha/Beta EPA 900			pCi/L		900.0 MOD			F0K090460-001	
Gross Alpha	412	322	46		17	11		74	(35-150)
	Batch #:	0327096		Analysis Date:		11/29/10			
Gross Alpha/Beta EPA 900			pCi/L		900.0 MOD			F0K090460-001	
Gross Beta	557	601	51		16.8	6.3		105	(54-150)
	Batch #:	0327096		Analysis Date:		11/29/10			

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NOTE(S)

Data are incomplete without the case narrative.
Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: F0K170562 Date Sampled: 11/17/10 1330
Matrix: WATER Date Received: 11/17/10 1445

Parameter		Spike Amount	SPIKE Result	Total Uncert. (2 σ+/-)	Spike Yld	SAMPLE Result		Total Uncert. (2σ +/-)	QC Sample ID % Yld	%Rec	QC Control Limits
Total Uranium by KPA ASTM 5				ug/L		5174-91				F0K170562-001	
Total Uranium		40.0	55.4	6.2		13.9	U	1.9		104	(62 - 150)
	Spk2	40.0	59.3	6.7		13.9	U	1.9		114	(62 - 150)
									Precision:	7	%RPD

Batch #: 0334183 Analysis date: 12/02/10

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NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off error in calculated results

U Result is less than the sample detection limit.

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F0K170562
Matrix: WATER

Date Sampled: 11/17/10
Date Received: 11/17/10

Parameter	SAMPLE Result		Total Uncert. (2σ +/-)		% Yld	DUPLICATE Result		Total Uncert. (2 σ +/-)		% Yld	QC Sample ID Precision	
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		901.1 MOD					F0K170562-001	
Cesium 137	2.6	U	7.0			-2	U	17			857	%RPD
		Batch #:	0322288	(Sample)		0322288	(Duplicate)					
Gross Alpha/Beta EPA 900				pCi/L		900.0 MOD					F0K090460-001	
Gross Alpha	17		11			6.1	U	9.6			95	%RPD
Gross Beta	16.8		6.3			11.7		5.8			35	%RPD
		Batch #:	0327096	(Sample)		0327096	(Duplicate)					

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NOTE(S)

Data are incomplete without the case narrative.
Calculations are performed before rounding to avoid round-off error in calculated results

U Result is less than the sample detection limit.

Lot F0K170562

[redacted]

Chain of Custody Record

CuL 37

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Herst & Associates, Inc.	Project Manager: Ward Herst	Date: 11/17/10	Chain of Custody Number: 172270
Address: 4631 N. St. Peters Parkway	Telephone Number (Area Code)/Fax Number: 636-939-9111 / 636 939-9757	Lab Number: —	Page 1 of 1
City: St. Charles; State: MO; Zip Code: 63304	Site Contact: Dave Vaskinder	Lab Contact: Kay Clay	
Project Name and Location (State): Bridgeton 4th Qtr Leachate	Carrier/Waybill Number: —		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Ra 226	Ra 228	Uranium	Gross Alpha	Gross Beta	Gross Gamma	Special Instructions/ Conditions of Receipt
Outfall 008	11/16-11/17/10	1335 1745 / 1335 1330		X					2				X	X	X	X	X	X	2x4LP

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Std

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By	11/17/10	1445	1. Received By	11/17/10	1445
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

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DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

TestAmerica St. Louis

MSD 024214

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F0K170562

CONDITION UPON RECEIPT FORM

Client: HERST + ASSOCIATS

Quote No: 49794

37

COC/RFA No: 172270

Initiated By: NVO Date: 11/17/10 Time: 1445

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y (N)

Shipping # (s):*

1. N/A
2.
3.
4.
5.
6.
7.
8.
9.
10.

Sample Temperature (s):**

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	Y (N)	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N (N/A)	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	(Y) N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	(Y) N	Sample received in proper containers?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y (N)	Was sample received broken?	13.	Y N (N/A)	Was Internal COC/Workshare received?
7.	(Y) N	Is sample volume sufficient for analysis?	14.	Y N (N/A)	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

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Corrective Action:

- ☐ Client Contact Name: _____ Informed by: _____
- ☐ Sample(s) processed "as is"
- ☐ Sample(s) on hold until: _____ If released, notify: _____
- Project Management Review: K. Oy Date: 11-17-10

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

Brandon Killion

From: Meibaum, Randy [RMeibaum@republicservices.com]

Sent: Tuesday, January 04, 2011 2:17 PM

To: Brandon Killion; nkostelecky@herstassociates.com; rbartholomew@stlmsd.com; Michele Boussad; Lina Klein

Cc: Vasbinder, David

Subject: 4337 2010 December Out Fall.xls

Outfall levels for all of 2010 at Bridgeton Landfill

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	2/1/2010	8,580,591	276,793	1,147,137.83	11,471.38
February	3/2/2010	9,141,652	294,892	1,222,145.99	12,221.46
March	3/31/2010	9,986,820	322,155	1,335,136.36	13,351.36
April	5/3/2010	9,049,114	291,907	1,209,774.60	12,097.75
May	5/28/2010	6,628,277	213,815	886,123.29	8,861.33
June	7/2/2010	6,471,799	208,768	865,213.77	8,652.14
July	8/2/2010	5,718,990	184,484	764,570.86	7,645.71
August	9/1/2010	4,468,786	144,154	597,431.28	5,974.31
September	10/4/2010	4,754,715	153,378	635,657.09	6,356.57
October	11/1/2010	4,755,891	153,416	635,814.30	6,358.14
November	11/30/2010	4,362,325	140,720	583,198.53	5,831.99
December	1/3/2011	4,791,330	154,559	640,552.14	6,405.52

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Metropolitan Saint Louis Sewer District
2350 Market Street
Saint Louis, Missouri 63103-2555

BRIDGETON LANDFILL LLC
13570 St. Charles Rock Road
Bridgeton, MO 63044

Attn: David Vasbinder
Environmental Manager

INDUSTRIAL WASTEWATER DISCHARGE PERMIT NUMBER 0511559802.

ANNUAL PERMIT FEE NOTICE

For permits in effect as of 10/01/2010.

Fee will be included on the **next regular monthly bill** from the Metropolitan St. Louis Sewer District.

Explanation of Charges

Fee for Pretreatment Program Discharge Permit covering the period October 1, 2010 through September 30, 2011 issued in accordance with the Metropolitan St. Louis District Ordinance #12413 for the location at **13570 St. Charles Rock Road**.

Base charge @ $150.00 per permit			$150.00
Volume charge @ $0.72 per average daily Ccf	322.45	Ccf(s)	$232.16
Sample Point Charge @ $100.00 per sample point	2	Point(s)	$200.00
		Total Fee Due:	**$582.16**

For inquiries about the Annual Permit Fee, please call 314-436-8756. For inquiries about payment of the fee, which will appear on your upcoming monthly bill, please call 1-866-281-5737.

THIS IS NOT A BILL

DO NOT PAY NOW

FEE WILL BE INCLUDED ON MONTHLY BILL

HERST & ASSOCIATES, INC.®

Global Presence
Personal Attention

S

MAM
11/4/2010

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

October 18, 2010

Dear Mr. Rehmer:

Third Quarter 2010 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-1

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the Third Quarter 2010 leachate sampling and analysis report for the Bridgeton Landfill. On September 7, 2010 and September 8, 2010, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-1. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Third Quarter 2010 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for July, August, and September 2010.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Brandon Killion
Staff Environmental Scientist

Ward E. Herst, R.G.
Managing Partner

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4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-9141
Fax (636) 939-9757

Cc: *David Vasbinder, Republic Services, Inc.*
John Haasis, St. Louis County Department of Health
Linda Wegrzyn, Missouri Department of Natural Resources

Attachments: *Attachment 1 – Metropolitan St. Louis Sewer District Industrial User Self Monitoring Reports*
Attachment 2 – Calculation of Discharged Activity
Attachment 3 – Heritage Environmental Laboratories, LLC, Laboratory Analytical Report
Attachment 4 – TestAmerica, Inc. Laboratory Analytical Report
Attachment 5 – Monthly Leachate Discharge Volume Records Provided by Bridgeton Landfill

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

MAM 11/4/2010

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: 0511559802-1 Effective Date: 9/18/2007 Expiration Date: 11/30/2010

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐(JAN-MAR) ☐(APR-JUNE) ☒(JULY-SEPT) ☐(OCT-DEC)

Samples Collected By: **Brandon Killion**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc.**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨			008					
DATES ON WHICH SAMPLES WERE COLLECTED ⇨			9/7/2010 and 9/8/2010					
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨			1140, 1558, 0805, 1140					
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW	***	E	162,505					GPD
Biochemical Oxygen Demand	***		180					mg/L
Chemical Oxygen Demand	***		920					mg/L
Oil and Grease	200		ND < 5.0					mg/L
pH Acidic (<7)	5.5							SU
pH Basic (≥7)	11.5		7.35					SU
Temperature	60		29.9					°C
Total Suspended Solids	***		22					mg/L
Ammonia (as N)	***		170					mg/L
Arsenic (Total)	0.4		NR					mg/L
Cadmium (Total)	0.7		NR					mg/L
Chromium (Total)	5.0		NR					mg/L
Copper (Total)	2.7		ND < 0.020					mg/L
Lead (Total)	0.4		NR					mg/L
Mercury (Total)	0.01		NR					mg/L
Nickel (Total)	2.3		0.019					mg/L
Zinc (Total)	3.0		0.21					mg/L
Total Toxic Organics	5.52		NR					mg/L
Gross Alpha	***		U					pCi/L
Gross Beta	***		58 ± 13					pCi/L
Gross Gamma (as Cesium-137)	***		U					pCi/L
Radium – 226	10		2.81 ± 0.50					pCi/L
Radium – 228	30		1.46 ± 0.68					pCi/L
Uranium (Total)	***		16 ± 2.2					µg/L

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Notes:
ND = Non-Detect
NR = Not required during this quarterly event
U = Result is less than sample detection limit

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS**.

NONE

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below:
	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.
	Print or type name of signing official: **David Vasbinder**
	Title: **Environmental Manager** Telephone: **314-739-5099 x 4464**
	Signature: Date: 10/14/10

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☐ (Apr-Jun) ☒ (July-Sept) ☐ (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	Not Applicable – Constituent Not Detected
Gross Beta	3.28×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	1.58×10^8
Radium - 228	8.25×10^7
Total Activity Discharged :	3.52×10^9 pCi = 3.52 mCi

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

☒ I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager

Telephone: 314-739-5099 ext 4464

Signature: [signature]

Date: 10/14/10

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.A.2 of the Bridgeton Landfill MSD Permit (Permit 05115598-02), each quarterly discharge report shall specify the activity discharged to the sewer system by permitted radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Third Quarter 2010 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\begin{matrix}\textit{Discharged}\\ \textit{Activity}\end{matrix} = \begin{matrix}\textit{Activity}\\ \textit{Concentration}\end{matrix} \times \begin{matrix}\textit{Discharged}\\ \textit{Volume}\end{matrix}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Third Quarter 2010 monitoring period.

Constituent	Result	Units
Gross Alpha	U	pCi/L
Gross Beta	58 ± 13	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	2.81 ± 0.50	pCi/L
Radium – 228	1.46 ± 0.68	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Third Quarter 2010 monitoring period:

- July 2010: 5,718,990 gallons
- August 2010: 4,468,786 gallons
- September 2010: 4,754,715 gallons

Summation of the monthly volumes provides the total volume discharged during the Third Quarter 2010 period:

$$5{,}718{,}990\ gal + 4{,}468{,}786\ gal + 4{,}754{,}715\ gal = 14{,}942{,}491\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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4631 North St. Peters Parkway
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

$$14{,}942{,}491\ gal \times \frac{3.785\ L}{gal} = 56{,}557{,}328\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Beta, multiply the activity concentration by the discharged volume:

$$\frac{58\ pCi}{L} \times 56{,}557{,}328\ L = 3.28 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{2.81\ pCi}{L} \times 56{,}557{,}328\ L = 1.58 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{1.46\ pCi}{L} \times 56{,}557{,}328\ L = 8.25 \times 10^{7}\ pCi$$

Summation of the three (3) results yields the total discharged activity for the Third Quarter 2010 reporting period:

$$3.28 \times 10^{9}\ pCi + 1.58 \times 10^{8}\ pCi + 8.25 \times 10^{7}\ pCi = 3.52 \times 10^{9}\ pCi$$

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Quality Assurance Report Package # 60486

HERST AND ASSOCIATES

JON WILKINSON
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Project : MO-ALLIED-BRIDGETON LANDFILL
LEACHATE - BRIDGETON LANDFILL

Sampled : 08-SEP-10

Sample Range : A892706

Approved by: CHRISTOPHER BOYLE - Project Manager

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 West Morris Street
Indianapolis, Indiana 46231
Phone: (317) 243-8304
Fax : (317) 486-5095

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HERITAGE ENVIRONMENTAL SERVICES, LLC.

COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231

www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I - 73235

1 of 1

Customer name/number: (Allied Waste Systems) Submitter # 8945

Project Name: Leachate - Bridgeton Landfill 3810

Z Quote No: Z 139877 (Given to you by your contact)

PO No. or Project/Activity ID: —

PRINT HERITAGE TSR NAME: —

CUSTOMER STATUS: New / (Existing)

If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Brandon Killion

Analyses Requested (Note special detection limits or methods)

Send Report To:

Co: Herst & Associates, Inc

Add: 4631 N. St Peters Parkway St. Charles, MO 63304

Attn: Ward Herst

Phone: (636) 939-9111

Fax: (636) 939-9757 Yes ☒

E-mail: labdata@herstassociates.com

Sample Turn Around Time

Standard: ✓ Rush Date ___ / ___ / ___ Mo Day Yr

(Accelerated TAT subject to Additional Charge) (Date must be Accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z139877	Remarks:	Lab use only Sample No.
9/7-8/10	1140 1558 AM / 0805 1140 PM	X		Outfall 008	L	4	X	L = Leachate	A892706
9/8/10	1140 AM/PM		X	Outfall 008	L	2	X		1
	AM/PM								
	AM/PM								
	AM/PM								
	AM/PM								
	AM/PM								
	AM/PM								
	AM/PM								
	AM/PM								
	AM/PM								
	AM/PM								

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	9/8/10 1830	FedEx #9848 0966 7080
Relinquished by: (Signature)	/	Received by: (Signature)
Relinquished by: (Signature)	/	Received by: (Signature)
Received for Lab by: (Signature) [signature]	Date 9.8.10 Time 0850	Temp. 0.5 °C ROI: Yes / No

Laboratory use only	Yes	No
Custody seals present/intact?	–	
Broken containers?		–
COC agree with sample labels?	–	
Correct containers for testing?	–	
Headspace issues acceptable?	–	
Holding time(s) acceptable?	–	
Preservative pH's acceptable?	–	
Was pH left unadjusted?	–	

Comments: *Short Hold*
9/7/10 1140 1558
9/8/10 0805 1140
9/8/10@1140
pH: 7.35 su, Cond: 4430 umhos
Temp: 29.9 °C, Turb: 24.13 NTU

ORIGINAL

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	09-SEP-10	A892706
	Completed	**PO Number**
	17-SEP-10	4337-10001-22
	Printed	**Sampled**
	17-SEP-10	08-SEP-10 11:40

Report To	Bill To
JON WILKINSON HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 NORTH OUTER ROAD ST. CHARLES, MO 63304	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
PROJECT NAME: LEACHATE - BRIDGETON LANDFILL
DATA PACKAGE #: 60486
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
PERMIT: 830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: J. CROFFIE Analysis Date: 10-SEP-10 12:40 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	180	2	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: J. CROFFIE Analysis Date: 14-SEP-10 14:45 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	920	20	mg/L

1:2 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: B. NDABAMBI Analysis Date: 14-SEP-10 11:00 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	BDL	5.0	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: T. DRIGGERS Analysis Date: 16-SEP-10 08:00 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	250		mL
FINAL VOLUME	250		mL

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Sample ID: A892706 OUTFALL 008

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 16-SEP-10 08:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	170	5.0	mg/L

1:50 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: R. YOUNG Analysis Date: 10-SEP-10 12:15 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	22	1	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: K. KAMARA Analysis Date: 10-SEP-10 09:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 12-SEP-10 12:30 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	BDL	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 12-SEP-10 12:30 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	19	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 12-SEP-10 12:30 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	21	20	ug/L

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B, 19TH ED. NELAC:Y

Analysis Date: 08-SEP-10 Instrument: FIELD Test: G607.2.0

Parameter	Result	Det. Limit	Units
PH	7.35	0.1	Std. Units

FIELD TEMPERATURE SM 2550 B, 19TH ED. NELAC:N

Analysis Date: 08-SEP-10 Instrument: FIELD Test: G603.1.0

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Sample ID: A892706 OUTFALL 008

Parameter	Result	Det. Limit	Units
TEMPERATURE	29.9		Degrees C

FIELD SPECIFIC CONDUCTANCE EPA 120.1 NELAC:Y

Analysis Date: 08-SEP-10 Instrument: FIELD Test: G604.1.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	4430	1.0	umHOS/cm

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .5 C.
Sample chain of custody number 73235.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.
IL ELAP / NELAP Accreditation # 100401 Indiana SDWA Lab Accred. No. C-49-01

Approved by: CHRISTINE SARKAN 17-SEP-10

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Quality Assurance Report

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17-SEP-10

Service Location	Submitter
Heritage Environmental Services, LLC Commercial Laboratory Operations 7901 West Morris Street Indianapolis, IN 46231 (317) 243-8304	JON WILKINSON HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 ST. CHARLES, MO 63304

Sample ID	Client ID	Date/Time Sampled	Date Received	Date Released
A892706	OUTFALL 008.....	08-Sep-10 11:40	09-Sep-10	17-Sep-2010

DESCRIPTION : QUARTERLY LEACHATE
LOCATION : BRIDGETON LANDFILL
PERMIT : 830871

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FIELD TEMPERATURE SM 2550 B, 19TH ED. G603.1

R571646 Analytical — Analyst: — Reviewer: — Run Date: 08-Sep-10 — Review Date: 10-Sep-10 — Instrument: FIELD

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	A892706		See Certificate of Analysis, Rep: 0							

COPPER ICP EPA 200.7 REV. 4.4 M412.3
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R571626 Prep — Analyst: K KAMARA — Reviewer: S ENDERSEN — Run Date: 10-Sep-10 — Review Date: 10-Sep-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2353564	NA	Analytical Run: R571679							
LCS	Q2353565	SPEX	Analytical Run: R571679							
DUP02	Q2353566	A892665	Analytical Run: R571679							
SPI02	Q2353567	A892665	Analytical Run: R571679							
SAMPLE	A892706	Rep: 0	Analytical Run: R571679							

R571679 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 11-Sep-10 — Review Date: 13-Sep-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2354057	PERKIN ELE	COPPER	0.01			0.00974	mg/L	97.4	
ICV01	Q2354056	PERKIN ELM	COPPER	1			1.00	mg/L	100.0	
LCCV	Q2354059	INORGANIC	COPPER	0.01			0.00997	mg/L	99.7	
CDL01	Q2354035	PERKIN ELM	COPPER	0.050			0.0505	mg/L	101.0	
ICS-AB	Q2353993	PERKIN ELM	COPPER	0.500			0.543	mg/L	108.6	
BLA02	Q2353564	NA	COPPER			<	0.00400	mg/L		
LCS	Q2353565	SPEX	COPPER	0.25			0.247	mg/L	98.8	
SER01	Q2354049	A892665	COPPER	0.187		CNA	0.199	mg/L		
DUP02	Q2353566	A892665	COPPER	0.187			0.220	mg/L		16.2
SPI02	Q2353567	A892665	COPPER	0.187	0.250		0.403	mg/L	86.4	
CCV	Q2354021	INORGANIC	COPPER	5.00			4.90	mg/L	98.0	
BLA01	Q2353985	NA	COPPER			<	0.00400	mg/L		
SAMPLE	A892706		See Certificate of Analysis, Rep: 0							
CCV	Q2354022	INORGANIC	COPPER	5.00			4.91	mg/L	98.2	
BLA01	Q2353986	NA	COPPER			<	0.00400	mg/L		
SER01	Q2354050	A892677	COPPER	0		BDL		mg/L		
CDL01	Q2354039	INORGANIC	COPPER	0.01			0.00984	mg/L	98.4	
ICS-AB	Q2353994	PERKIN ELM	COPPER	0.500			0.528	mg/L	105.6	

Q2354049 1:5 Dilution.
Q2354049 There was possible matrix interference for K
Q2354049 as indicated by the serial dilution results.

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CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) G301.1

R571900 Analyst: J CROFFIE Run Date: 14-Sep-10
Analytical Reviewer: P SPENCE Review Date: 16-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2355739		CHEMICAL OXYGEN DEMAND			BDL	8	mg/L		
ICV01	Q2355740		CHEMICAL OXYGEN DEMAND	200			187	mg/L	93.5	
CCV	Q2355741		CHEMICAL OXYGEN DEMAND	500			488	mg/L	97.6	
SAMPLE	A892706		See Certificate of Analysis, Rep: 0							
DUP01	Q2355742	A892706	CHEMICAL OXYGEN DEMAND	922			926	mg/L		0.4
CCV	Q2355745		CHEMICAL OXYGEN DEMAND	500			499	mg/L	99.8	
BLA01	Q2355746		CHEMICAL OXYGEN DEMAND			BDL	8	mg/L		
SPI01	Q2355747	A892802	CHEMICAL OXYGEN DEMAND	244	100		343	mg/L	99.0	
DPS01	Q2355748	A892802	CHEMICAL OXYGEN DEMAND	244	100		344	mg/L	100.0	1.0

Q2355742 1:2 Dilution.

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B, 19TH ED. G607.2

R571646 Analyst: Run Date: 08-Sep-10 Instrument: FIELD
Analytical Reviewer: Review Date: 10-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	A892706		See Certificate of Analysis, Rep: 0							

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A G166.0

R571770 Analyst: B NDABAMBI Run Date: 14-Sep-10
Analytical Reviewer: P SPENCE Review Date: 14-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2354606		HEM, TOTAL (OIL AND GREASE)			BDL	1.5	mg/L		
LFB01	Q2354607		HEM, TOTAL (OIL AND GREASE)	40.0			41.8	mg/L	104.5	
DLFB01	Q2354608		HEM, TOTAL (OIL AND GREASE)	40.0			39.0	mg/L	97.5	6.9
SAMPLE	A892706		See Certificate of Analysis, Rep: 0							
SPI01	Q2354609	A892903	HEM, TOTAL (OIL AND GREASE)	0	42.1		32.9	mg/L	78.1	

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. G403.8

R571725 Analyst: R YOUNG Run Date: 10-Sep-10
Analytical Reviewer: P SPENCE Review Date: 15-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2354333		SUSPENDED SOLIDS			BDL	1	mg/L		
LFB01	Q2354334		SUSPENDED SOLIDS	130			119	mg/L	91.5	
SPI01	Q2354335	A892755	SUSPENDED SOLIDS	3	65		64	mg/L	93.8	
DPS01	Q2354336	A892755	SUSPENDED SOLIDS	3	65		66	mg/L	96.9	3.2
SAMPLE	A892706		See Certificate of Analysis, Rep: 0							
LFB01	Q2354337		SUSPENDED SOLIDS	130			128	mg/L	98.5	
BLA01	Q2354338		SUSPENDED SOLIDS			BDL	1	mg/L		

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FIELD SPECIFIC CONDUCTANCE EPA 120.1 G604.1

R571646 Analyst: Run Date: 08-Sep-10 Instrument: FIELD
Analytical Reviewer: Review Date: 10-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	A892706		See Certificate of Analysis, Rep: 0							

ZINC ICP EPA 200.7 REV. 4.4 M439.3
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R571626 Analyst: K KAMARA Run Date: 10-Sep-10 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2353564	NA	Analytical Run: R571679							
LCS	Q2353565	SPEX	Analytical Run: R571679							
DUP02	Q2353566	A892665	Analytical Run: R571679							
SPI02	Q2353567	A892665	Analytical Run: R571679							
SAMPLE	A892706	Rep: 0	Analytical Run: R571679							

R571679 Analyst: J KRAMER Run Date: 11-Sep-10 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 13-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2354057	PERKIN ELE	ZINC	0.0200			0.0184	mg/L	92.0	
ICV01	Q2354056	PERKIN ELM	ZINC	1			1.00	mg/L	100.0	
LCCV	Q2354059	INORGANIC	ZINC	0.0200			0.0187	mg/L	93.5	
CDL01	Q2354035	PERKIN ELM	ZINC	0.040			0.0374	mg/L	93.5	
ICS-AB	Q2353993	PERKIN ELM	ZINC	1.00			1.00	mg/L	100.0	
BLA02	Q2353564	NA	ZINC			<	0.00800	mg/L		
LCS	Q2353565	SPEX	ZINC	0.5			0.534	mg/L	106.8	
SER01	Q2354049	A892665	ZINC	0.113		CNA	0.115	mg/L		
DUP02	Q2353566	A892665	ZINC	0.113			0.129	mg/L		13.2
SPI02	Q2353567	A892665	ZINC	0.113	0.500		0.596	mg/L	96.6	
CCV	Q2354021	INORGANIC	ZINC	5.00			5.24	mg/L	104.8	
BLA01	Q2353985	NA	ZINC			<	0.00800	mg/L		
SAMPLE	A892706		See Certificate of Analysis, Rep: 0							
CCV	Q2354022	INORGANIC	ZINC	5.00			5.26	mg/L	105.2	
BLA01	Q2353986	NA	ZINC			<	0.00800	mg/L		
SER01	Q2354050	A892677	ZINC	0		BDL		mg/L		
CDL01	Q2354039	INORGANIC	ZINC	0.0200			0.0191	mg/L	95.5	
ICS-AB	Q2353994	PERKIN ELM	ZINC	1.00			0.998	mg/L	99.8	

Q2354049 1:5 Dilution.
Q2354049 There was possible matrix interference for K
Q2354049 as indicated by the serial dilution results.

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AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. **G203.8**
Prep : AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

R571893 Analyst: T DRIGGERS Run Date: 16-Sep-10 Instrument: PREP
Prep Reviewer: P SPENCE Review Date: 16-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2355695		Analytical Run: R571894							
LFB02	Q2355696		Analytical Run: R571894							
SPI02	Q2355698	A893245	Analytical Run: R571894							
DPS02	Q2355699	A893245	Analytical Run: R571894							
SAMPLE	A892706	Rep: 0	Analytical Run: R571894							

Q2355698 1:5 Dilution.
Q2355699 1:5 Dilution.

R571894 Analyst: T DRIGGERS Run Date: 16-Sep-10
Analytical Reviewer: P SPENCE Review Date: 17-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CDL01	Q2355703		NITROGEN, AMMONIA	0.100			0.121	mg/L	121.0	
ICV01	Q2355704		NITROGEN, AMMONIA	3.00			2.83	mg/L	94.3	
BLA02	Q2355695		NITROGEN, AMMONIA			BDL	0.10	mg/L		
LFB02	Q2355696		NITROGEN, AMMONIA	5.00			4.99	mg/L	99.8	
SPI02	Q2355698	A893245	NITROGEN, AMMONIA	18.8	4		23.0	mg/L	105.0	
DPS02	Q2355699	A893245	NITROGEN, AMMONIA	18.8	4		23.9	mg/L	127.5	19.4
CCVL	Q2355707		NITROGEN, AMMONIA	1.00			0.990	mg/L	99.0	
BLA01	Q2355708		NITROGEN, AMMONIA			BDL	0.10	mg/L		
SAMPLE	A892706		See Certificate of Analysis, Rep: 0							
CCVH	Q2355711		NITROGEN, AMMONIA	5.00			4.79	mg/L	95.8	
BLA01	Q2355712		NITROGEN, AMMONIA			BDL	0.10	mg/L		

Q2355698 1:5 Dilution.
Q2355699 1:5 Dilution.

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED **G801.4**

R571858 Analyst: J CROFFIE Run Date: 10-Sep-10
Analytical Reviewer: P SPENCE Review Date: 16-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCV	Q2355365		BIOCHEMICAL OXYGEN DEMAND	198			180	mg/L	90.9	
BLA01	Q2355367		BIOCHEMICAL OXYGEN DEMAND			BDL	2	mg/L		
SAMPLE	A892706		See Certificate of Analysis, Rep: 0							
CCV	Q2355369		BIOCHEMICAL OXYGEN DEMAND	198			191	mg/L	96.5	
BLA01	Q2355370		BIOCHEMICAL OXYGEN DEMAND			BDL	2	mg/L		
DUP01	Q2355373	A892862	BIOCHEMICAL OXYGEN DEMAND	14			13	mg/L		7.4

NICKEL ICP EPA 200.7 REV. 4.4 **M422.3**
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R571626 Analyst: K KAMARA Run Date: 10-Sep-10 Instrument: PREP
Prep Reviewer: S ENDERSEN Review Date: 10-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2353564	NA	Analytical Run: R571679							
LCS	Q2353565	SPEX	Analytical Run: R571679							
DUP02	Q2353566	A892665	Analytical Run: R571679							

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NICKEL ICP EPA 200.7 REV. 4.4 **M422.3**
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R571626 Analyst: K KAMARA Run Date: 10-Sep-10
Prep Reviewer: S ENDERSEN Review Date: 10-Sep-10 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI02	Q2353567	A892665	Analytical Run: R571679							
SAMPLE	A892706	Rep: 0	Analytical Run: R571679							

R571679 Analyst: J KRAMER Run Date: 11-Sep-10 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 13-Sep-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2354057	PERKIN ELE	NICKEL	0.005			0.00431	mg/L	86.2	
ICV01	Q2354056	PERKIN ELM	NICKEL	1			0.993	mg/L	99.3	
LCCV	Q2354059	INORGANIC	NICKEL	0.005			0.00420	mg/L	84.0	
CDL01	Q2354035	PERKIN ELM	NICKEL	0.080			0.0791	mg/L	98.9	
ICS-AB	Q2353993	PERKIN ELM	NICKEL	1.00			0.933	mg/L	93.3	
BLA02	Q2353564	NA	NICKEL			<	0.00200	mg/L		
LCS	Q2353565	SPEX	NICKEL	0.5			0.493	mg/L	98.6	
SER01	Q2354049	A892665	NICKEL	0.00590		CNA	0.00702	mg/L		
DUP02	Q2353566	A892665	NICKEL	0.00590		CNA	0.00652	mg/L		
SPI02	Q2353567	A892665	NICKEL	0.00590	0.500		0.447	mg/L	88.2	
CCV	Q2354021	INORGANIC	NICKEL	5.00			4.86	mg/L	97.2	
BLA01	Q2353985	NA	NICKEL			<	0.00200	mg/L		
SAMPLE	A892706		See Certificate of Analysis, Rep: 0							
CCV	Q2354022	INORGANIC	NICKEL	5.00			4.86	mg/L	97.2	
BLA01	Q2353986	NA	NICKEL			<	0.00200	mg/L		
SER01	Q2354050	A892677	NICKEL	0		BDL		mg/L		
CDL01	Q2354039	INORGANIC	NICKEL	0.005			0.00503	mg/L	100.6	
ICS-AB	Q2353994	PERKIN ELM	NICKEL	1.00			0.914	mg/L	91.4	

Q2354049 1:5 Dilution.
Q2354049 There was possible matrix interference for K
Q2354049 as indicated by the serial dilution results.

RQL	Result Qualifier Definition
<	Less Than
BDL	Below Detection Limit
CNA	RPD Calculation Not Applicable, < DL

QC Type	Definition
LFB02	LABORATORY FORTIFIED BLANK PREPPED
CCVH	HIGH CONTINUING CALIBRATION VERIFICATION
LICV01	LOW LEVEL CALIBRATION VERIFICATION DIFFERENT SOURCE
SER01	ICP SERIAL DILUTION
CCVL	LOW CONTINUING CALIBRATION VERIFICATION
ICV01	INITIAL CALIBRATION VERIFICATION DIFFERENT SOURCE
DPS01	DUPLICATE MATRIX SPIKE
DUP02	PREPPED DUPLICATE SAMPLE ANALYSIS
SPI02	PREPPED MATRIX SPIKE
CDL01	DETECTION LIMIT STANDARD
CCV	CONTINUING CALIBRATION VERIFICATION
LCCV	LOW LEVEL CONTINUING CALIBRATION VERIFICATION

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QC Type	Definition
ICS-AB	INTERFERENCE CHECK SAMPLE AB
LCS	LABORATORY CONTROL SAMPLE PREPPED
LFB01	LABORATORY FORTIFIED BLANK
DUP01	DUPLICATE SAMPLE ANALYSIS
SPI01	MATRIX SPIKE
DLFB01	DUPLICATE LABORATORY FORTIFIED BLANK
BLA01	CALIBRATION (INSTRUMENT) BLANK
DPS02	PREPPED DUPLICATE MATRIX SPIKE
BLA02	PREPPED (CALIBRATION) BLANK OR METHOD BLANK

Approved By : CHRISTINE SARKAN

ENTERED

TestAmerica
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TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Bridgeton Landfill

Lot #: F0I080494

Ward Herst

Herst & Associates Inc
4630 South Hwy 94
North Outer Road
St Charles, MO 63304

TESTAMERICA LABORATORIES, INC.

Kay Clay
Project Manager

September 28, 2010

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13715 Rider Trail North Earth City, MO 63045 tel 314.298.8566 fax 314.298.8757 www.testamericainc.com

Case Narrative
LOT NUMBER: F0I080494

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on September 8, 2010. This sample is associated with your Bridgeton Landfill project.

The analytical results included in this report meet all applicable quality control procedure requirements, except as noted below.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. **TestAmerica St. Louis' Florida certification number is E87689.** The case narrative is an integral part of this report.

This report shall not be reproduced, except in full, without the written approval of the laboratory.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances
Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Gross Alpha/Beta (EPA 900.0 MOD)

The Gross Alpha and Beta reporting limit was not met due to a reduction of sample size attributed to the sample's high residual mass.
Affected Samples:
F0I080494 (1): OUTFALL 008

Total Uranium by laser pH Osphorimetry (ASTM 5174-91)

The samples were analyzed at a dilution due to the presence of matrix interferences which caused the samples to have low sample correlations. The reporting limit has been adjusted for the dilution.
Affected Samples:
F0I080494 (1): OUTFALL 008

METHODS SUMMARY

F0I080494

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
Radium-226 by GFPC	EPA 903.0 MOD	
Radium-228 by GFPC	EPA 904 MOD	
Total Uranium By Laser Ph osphorimetry	ASTM 5174-91	

References:

ASTM Annual Book Of ASTM Standards.

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

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SAMPLE SUMMARY

F0I080494

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L6NA0	001	OUTFALL 008	09/08/10	11:40

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Herst & Associates, Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F0I080494-001
Work Order: L6NA0
Matrix: WATER

Date Collected: 09/08/10 1140
Date Received: 09/08/10 1219

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 0251285	Yld % 40
Radium 228	1.46		0.68	1.00	0.98	09/08/10	09/24/10
Gross Alpha/Beta EPA 900				pCi/L		Batch # 0257229	Yld %
Gross Alpha	9	U	13	3	22	09/14/10	09/18/10
Gross Beta	58		13	4	13	09/14/10	09/18/10
Total Uranium by KPA ASTM 5174-91				ug/L		Batch # 0265101	Yld %
Total Uranium	16.0		2.2	50.0	15	09/22/10	09/24/10
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 0251284	Yld % 44
Radium (226)	2.81		0.50	1.00	0.23	09/08/10	09/25/10
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 0252307	Yld %
Cesium 137	0.6	U	7.9	20.0	15	09/09/10	09/14/10

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NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F0I080494
Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC		Prep Date	Analysis Date	Lab Sample ID
Total Uranium by KPA ASTM 5174-91			ug/L	Batch #	0265101	Yld %			F0I220000-101B
Total Uranium	0.423		0.050	1.00	0.31		09/22/10	09/24/10	
Radium 228 by GFPC EPA 904 MOD			pCi/L	Batch #	0251285	Yld %	104		F0I080000-285B
Radium 228	0.06	U	0.21	1.00	0.36		09/08/10	09/24/10	
Radium 226 by EPA 903.0 MOD			pCi/L	Batch #	0251284	Yld %	109		F0I080000-284B
Radium (226)	0.063	U	0.068	1.00	0.10		09/08/10	09/25/10	
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	Batch #	0252307	Yld %			F0I090000-307B
Cesium 137	5.2	U	9.4	20.0	16		09/09/10	09/14/10	
Gross Alpha/Beta EPA 900			pCi/L	Batch #	0257229	Yld %			F0I140000-229B
Gross Alpha	0.05	U	0.40	2.00	0.79		09/14/10	09/18/10	
Gross Beta	0.09	U	0.66	4.00	1.1		09/14/10	09/18/10	

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

Laboratory Control Sample Report

Radiochemistry

Client Lot ID: F0I080494
Matrix: WATER

Parameter	Spike Amount	Result	Total Uncert. (2 σ+/-)	MDC	% Yld	% Rec	Lab Sample ID / QC Control Limits
Radium 226 by EPA 903.0 MOD			pCi/L	903.0 MOD			F0I080000-284C
Radium (226)	11.3	11.6	1.1	0.1	107	103	(71 - 126)
	Batch #:	0251284		Analysis Date:	09/25/10		
Radium 228 by GFPC EPA 904 MOD			pCi/L	904 MOD			F0I080000-285C
Radium 228	6.04	5.71	0.67	0.37	103	95	(66 - 140)
	Batch #:	0251285		Analysis Date:	09/24/10		
Gamma Cs-137 & Hits by EPA 901.1 MOD			pCi/L	901.1 MOD			F0I090000-307C
Americium 241	141000	133000	11000	500		94	(84 - 113)
Cesium 137	53100	48800	2800	200		92	(85 - 110)
Cobalt 60	87900	79200	4400	200		90	(84 - 110)
	Batch #:	0252307		Analysis Date:	09/14/10		
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			F0I140000-229C
Gross Beta	67.1	70.5	6.0	1.2		105	(74 - 128)
	Batch #:	0257229		Analysis Date:	09/18/10		
Gross Alpha/Beta EPA 900			pCi/L	900.0 MOD			F0I140000-229C
Gross Alpha	49.4	51.3	5.8	1.2		104	(69 - 128)
	Batch #:	0257229		Analysis Date:	09/18/10		
Total Uranium by KPA ASTM 5174-91			ug/L	5174-91			F0I220000-101C
Total Uranium	40.0	44.1	5.3	0.3		110	(90 - 120)
	Batch #:	0265101		Analysis Date:	09/24/10		
Total Uranium by KPA ASTM 5174-91			ug/L	5174-91			F0I220000-101C
Total Uranium	8.00	8.82	0.91	0.31		110	(90 - 120)
	Batch #:	0265101		Analysis Date:	09/24/10		

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NOTE(S)

MDC is determined by instrument performance only
Calculations are performed before rounding to avoid round-off error in calculated results

MATRIX SPIKE REPORT

Radiochemistry

Client Lot Id: F0I140437
Matrix: WATER

Date Sampled: 09/10/10
Date Received: 09/14/10

Parameter	Spike Amount	Spike Result	Total Uncert. (2σ +/-)	Spike Yld.	Sample Result	Total Uncert. (2 σ +/-)	QC Sample ID %YLD	QC Sample ID %REC	QC Control Limits
Gross Alpha/Beta EPA 900			**pCi/L**		**900.0 MOD**			**F0I140437-001**	
Gross Beta	67.1	80.8	6.8		12.5	1.7		102	(54 - 150)
	Batch #:	0257229		Analysis Date:		09/18/10			
Gross Alpha/Beta EPA 900			**pCi/L**		**900.0 MOD**			**F0I140437-001**	
Gross Alpha	49.4	36.7	5.9		-0.2	1.2		75	(35 - 150)
	Batch #:	0257229		Analysis Date:		09/18/10			

NOTE(S)

Data are incomplete without the case narrative.

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE REPORT

Radiochemistry

Client Lot ID: F0I080494 Date Sampled: 09/08/10 1140
Matrix: WATER Date Received: 09/08/10 1219

Parameter		Spike Amount	SPIKE Result	Total Uncert. (2 σ+/-)	Spike Yld	SAMPLE Result	Total Uncert. (2σ +/-)	QC Sample ID % Yld	%Rec	QC Control Limits
Total Uranium by KPA ASTM 5				ug/L		5174-91			F0I080494-001	
Total Uranium		40.0	48.2	5.0		16.0	2.2		81	(62 - 150)
	Spk2	40.0	59.0	6.2		16.0	2.2		108	(62 - 150)
								Precision:	20	%RPD

Batch #: 0265101 **Analysis date:** 09/24/10

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NOTE(S)
Data are incomplete without the case narrative.
Calculations are performed before rounding to avoid round-off error in calculated results

DUPLICATE EVALUATION REPORT

Radiochemistry

Client Lot ID: F0I080494 Date Sampled: 09/08/10
Matrix: WATER Date Received: 09/08/10

Parameter	SAMPLE Result		Total Uncert. (2σ+/-)	% Yld	DUPLICATE Result		Total Uncert. (2 σ+/-)	% Yld	QC Sample ID Precision	
Radium 228 by GFPC EPA 904 MOD				pCi/L	904 MOD				F0I080494-001	
Radium 228	1.46		0.68	40	0.69	U	0.61	41	71	%RPD
	Batch #:		0251285	(Sample)	0251285		(Duplicate)			
Radium 226 by EPA 903.0 MOD				pCi/L	903.0 MOD				F0I080494-001	
Radium (226)	2.81		0.50	44	2.73		0.50	44	3	%RPD
	Batch #:		0251284	(Sample)	0251284		(Duplicate)			
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	901.1 MOD				F0I080494-001	
Cesium 137	0.6	U	7.9		-1.6	U	8.1		428	%RPD
	Batch #:		0252307	(Sample)	0252307		(Duplicate)			
Gross Alpha/Beta EPA 900				pCi/L	900.0 MOD				F0I140437-001	
Gross Alpha	-0.2	U	1.2		0.1	U	1.2		492	%RPD
Gross Beta	12.5		1.7		11.5		1.6		9	%RPD
	Batch #:		0257229	(Sample)	0257229		(Duplicate)			

NOTE(S)

Data are incomplete without the case narrative.
Calculations are performed before rounding to avoid round-off error in calculated results

U Result is less than the sample detection limit.

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

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cx 185
F0I080494

TAL-4124 (1007)

Client: Herst & Associates, Inc	Project Manager: Ward Herst	Date: 9-8-10	Chain of Custody Number: 171702
Address: 4631 N. St. Peters Parkway	Telephone Number (Area Code)/Fax Number: 636-939-9111/636-939-9757	Lab Number: —	Page 1 of 1
City: St. Charles; State: MO; Zip Code: 63304	Site Contact: Dave Vanbinder; Lab Contact: Kay Clay		
Project Name and Location (State): Bridgeton 3Q10 Leachate	Carrier/Waybill Number: —		
Contract/Purchase Order/Quote No.: —			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Ra226	Ra228	Uranium	Gross Alpha	Gross Beta	Gross Gamma	Special Instructions/ Conditions of Receipt
Outfall 008	9/7-8/10	1140 1558 0805 1140		X					2				X	X	X	X	X	X	2x4Lp

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	9-8-10	1219	1. Received By: [signature]	9-8-10	1219
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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Lot #(s): FOI080494

CONDITION UPON RECEIPT FORM

Client: Hearst

Quote No: 49794

185

COC/RFA No: 171702

Initiated By: [signature] Date: 9.8.10 Time: 12:19

Shipping Information

Shipper: FedEx UPS DHL Courier (Client) Other: _____ Multiple Packages: Y (N)

Shipping # (s):*		Sample Temperature (s):**	
1.	6.	1. 18	6.
2.	7.	2.	7.
3.	8.	3.	8.
4.	9.	4.	9.
5.	10.	5.	10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	(Y) N	Are there custody seals present on the cooler?	8.	Y (N)	Are there custody seals present on bottles?
2.	Y (N) N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N (N/A)	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	(Y) N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	(Y) N	Sample received in proper containers?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y (N)	Was sample received broken?	13.	Y N (N/A)	Was Internal COC/Workshare received?
7.	(Y) N	Is sample volume sufficient for analysis?	14.	Y N (N/A)	Was pH taken by original TestAmerica lab?

[1] For DOB-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Samples arrived on ice - composite just collected

Corrective Action:

- ☐ Client Contact Name: _____ Informed by: _____
- ☐ Sample(s) processed "as is"
- ☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: Jayna Pohl Date: 9.11.10

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

Brandon Killion

From: Meibaum, Randy [RMeibaum@republicservices.com]
Sent: Monday, October 04, 2010 11:08 AM
To: mbrown@stlmsd.com; Brandon Killion
Cc: Vasbinder, David
Subject: 4337 2010 Sept. Out Fall.xls

Here is the Outfall report for September 2010 for Bridgeton Landfill.

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	2/1/2010	8,580,591	276,793	1,147,137.83	11,471.38
February	3/2/2010	9,141,652	294,892	1,222,145.99	12,221.46
March	3/31/2010	9,986,820	322,155	1,335,136.36	13,351.36
April	5/3/2010	9,049,114	291,907	1,209,774.60	12,097.75
May	5/28/2010	6,628,277	213,815	886,123.29	8,861.33
June	7/2/2010	6,471,799	208,768	865,213.77	8,652.14
July	8/2/2010	5,718,990	184,484	764,570.86	7,645.71
August	9/1/2010	4,468,786	144,154	597,431.28	5,974.31
September	10/4/2010	4,754,715	153,378	635,657.09	6,356.57
October					
November					
December					

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ACCOUNT NUMBER: 05115598-02

COMPANY NAME: BRIDGETON LANDFILL LLC

CORRESPONDENCE

FROM 01-26-09 THRU 07-27-10

X	CORRESPONDANCE LOCATED IN OVERFLOW FILE

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08/27/2010
MAM
CALL BACK
FOR

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

July 26, 2010

Dear Mr. Rehmer:

Second Quarter 2010 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-1

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the Second Quarter 2010 leachate sampling and analysis report for the Bridgeton Landfill. On May 24, 2010 and May 25, 2010, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-1. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Second Quarter 2010 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for April, May, and June 2010.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Brandon Killion
Staff Environmental Scientist

Ward E. Herst, R.G.
Managing Partner

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

Cc: *David Vasbinder, Republic Services, Inc.*
John Haasis, St. Louis County Department of Health
Linda Wegrzyn, Missouri Department of Natural Resources

Attachments:
Attachment 1 – Metropolitan St. Louis Sewer District Industrial User Self Monitoring Reports
Attachment 2 – Calculation of Discharged Activity
Attachment 3 – Heritage Environmental Laboratories, LLC, Laboratory Analytical Report
Attachment 4 – TestAmerica, Inc. Laboratory Analytical Report
Attachment 5 – Monthly Leachate Discharge Volume Records Provided by Bridgeton Landfill

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09/27/2010

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: 0511559802-1 Effective Date: 9/18/2007 Expiration Date: 11/30/2010

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐(JAN-MAR) ■(APR-JUNE) ☐(JULY-SEPT) ☐(OCT-DEC)

Samples Collected By: **Brandon Killion**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc.**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨			008					
DATES ON WHICH SAMPLES WERE COLLECTED ⇨			5/24/2010 and 5/25/2010					
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨			1125, 1540, 0745, 1125					
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW	***	E	247,595					GPD
Biochemical Oxygen Demand	***		910					mg/L
Chemical Oxygen Demand	***		1700					mg/L
Oil and Grease	200		8.9					mg/L
pH Acidic (<7)	5.5		6.35					SU
pH Basic (≥7)	11.5							SU
Temperature	60		28.3					°C
Total Suspended Solids	***		62					mg/L
Ammonia (as N)	***		350					mg/L
Arsenic (Total)	0.4		0.032					mg/L
Cadmium (Total)	0.7		ND < 0.0050					mg/L
Chromium (Total)	5.0		0.027					mg/L
Copper (Total)	2.7		0.057					mg/L
Lead (Total)	0.4		ND < 0.010					mg/L
Mercury (Total)	0.01		ND < 0.00020					mg/L
Nickel (Total)	2.3		0.029					mg/L
Zinc (Total)	3.0		0.20					mg/L
Total Toxic Organics	5.52		1.941					mg/L
Gross Alpha 225.0	***		U					pCi/L
Gross Beta	***		14 ± 09					pCi/L
Gross Gamma (as Cesium-137)	***		4.15 U					pCi/L
Radium – 226	10		3.24 ± 0.34					pCi/L
Radium – 228	30		2.18 ± 0.26					pCi/L
Uranium (Total)	***		0.705 ± 0.041					µg/L

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Notes:
ND = Non-Detect
NR = Not required during this quarterly event
U = Result is less than sample detection limit

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS**.

NONE

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below:
	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.
	Print or type name of signing official: **David Vasbinder**
	Title: **Environmental Manager** Telephone: **314-739-5099 x 4464**
	Signature: D. V Date: 7/22/10

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☒ (Apr-Jun) ☐ (July-Sept) ☐ (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	Not Applicable – Constituent Not Detected
Gross Beta	9.56×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	2.72×10^8
Radium - 228	1.83×10^8
Total Activity Discharged :	1.00×10^{10}

= 10 mCi

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

☒ I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager

Telephone: 314-739-5099 ext 4464

Signature: [signature]

Date: 7/22/10

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.A.2 of the Bridgeton Landfill MSD Permit (Permit 05115598-02), each quarterly discharge report shall specify the activity discharged to the sewer system by permitted radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Second Quarter 2010 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\begin{matrix}\textit{Discharged}\\ \textit{Activity}\end{matrix} = \begin{matrix}\textit{Activity}\\ \textit{Concentration}\end{matrix} \times \begin{matrix}\textit{Discharged}\\ \textit{Volume}\end{matrix}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Second Quarter 2010 monitoring period.

Constituent	Result	Units
Gross Alpha	U	pCi/L
Gross Beta	114 ± 9	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	3.24 ± 0.34	pCi/L
Radium – 228	2.18 ± 0.26	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Second Quarter 2010 monitoring period:

- April 2010: 9,049,114 gallons
- May 2010: 6,628,277 gallons
- June 2010: 6,471,799 gallons

Summation of the monthly volumes provides the total volume discharged during the Second Quarter 2010 period:

$$9{,}049{,}114\ gal + 6{,}628{,}277\ gal + 6{,}471{,}799\ gal = 22{,}149{,}190\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9797

$$22{,}149{,}190\ gal \times \frac{3.785\ L}{gal} = 83{,}834{,}684\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Beta, multiply the activity concentration by the discharged volume:

$$\frac{114\ pCi}{L} \times 83{,}834{,}684\ L = 9.56 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{3.24\ pCi}{L} \times 83{,}834{,}684\ L = 2.72 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{2.18\ pCi}{L} \times 83{,}834{,}684\ L = 1.83 \times 10^{8}\ pCi$$

Summation of the three (3) results yields the total discharged activity for the Second Quarter 2010 reporting period:

$$9.56 \times 10^{9}\ pCi + 2.72 \times 10^{8}\ pCi + 1.83 \times 10^{8}\ pCi = 1.00 \times 10^{10}\ pCi$$

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Quality Assurance Report Package # 60022

HERST AND ASSOCIATES

WARD HERST
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Project : MO-ALLIED-BRIDGETON LANDFILL

Sampled : 25-MAY-10

Sample Range : A882797

Approved by: CHRISTOPHER BOYLE - Project Manager

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 West Morris Street
Indianapolis, Indiana 46231
Phone: (317) 243-8304
Fax : (317) 486-5095

01063015

HERITAGE ENVIRONMENTAL SERVICES, LLC.

COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231

www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I - 72780

1 of 1

Customer name/number: Allied Waste Systems Submitter # 8945

Project Name: Bridgeton 2010 Leachate

Z Quote No: Z1403016 (Given to you by your contact)

PO No. or Project/Activity ID: —

PRINT HERITAGE TSR NAME: —

CUSTOMER STATUS: New / Existing

If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Brandon Killian & Leslie Kunze

Analyses Requested (Note special detection limits or methods)

Send Report To:

Co: Hirst & Associates

Add: 4630 S. Hwy 94 N. Outer Rd St. Charles MO 63304

Attn: Ward Hirst

Phone: (636) 939-9111

Fax: (636) 939-9757 Yes ☒

E-mail: bobbie@hirstassociates.com

Sample Turn Around Time

Standard: ✓ Rush Date ___/___/___ Mo Day Yr

(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z1403016	Remarks:	Lab use only Sample No.
5/24-25/10	1125 1540 AM 0745 1125 PM	X		Outfall 008	L	8	X	L = Leachate	A882797 I
5/25/10	1125 PM		X	Outfall 008	L	6	X		
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								

Relinquished by: (Signature) [signature] Date/Time 5/25/10 1830

Received by: (Signature) FedEx # 9848 0966 2739

Relinquished by: (Signature) Date/Time /

Received by: (Signature)

Relinquished by: (Signature) Date/Time /

Received by: (Signature)

Received for Lab by: (Signature) [signature]

Date 5-26-10 Temp. 5.4 °C

Time 0840 ROI: Yes / ~~No~~

Emp

Laboratory use only	Yes	No
Custody seals present/intact?	—	
Broken containers?		—
COC agree with sample labels?	—	
Correct containers for testing?	—	
Headspace issues acceptable?	—	
Holding time(s) acceptable?	—	
Preservative pH's acceptable?	—	
Was pH left unadjusted?	—	

Comments: * Short Hold *

5/24/10 1125 1540

5/25/10 0745 1125

5/25/10 @ 1125

pH: 6.35su, Cond: 5490 µs

Temp: 28.3°C, Turb: 159 NTU

ORIGINAL

MSD 024259

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CERTIFICATE OF ANALYSIS

Service Location	Received	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	26-MAY-10	A882797
	Completed	**PO Number**
	14-JUN-10	4337-10001-10
	Printed	**Sampled**
	14-JUN-10	25-MAY-10 11:25

Report To	Bill To
WARD HERST HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 NORTH OUTER ROAD ST. CHARLES, MO 63304	DAVE VASBINDER ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER: 8945 - MO-ALLIED-BRIDGETON LANDFILL
DATA PACKAGE #: 60022
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: ANNUAL LEACHATE
830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: S. BOXUM Analysis Date: 26-MAY-10 15:24 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	910	20	mg/L

1:10 Dilution.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: J. CROFFIE Analysis Date: 03-JUN-10 09:15 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	1700	20	mg/L

1:2 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: S. BOXUM Analysis Date: 27-MAY-10 12:10 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	62	1	mg/L

Filtered less sample due to sample matrix.

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: J. CROFFIE Analysis Date: 10-JUN-10 13:00 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	250		mL

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FINAL VOLUME	250		mL

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 11-JUN-10 09:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	350	5.0	mg/L

1:50 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: B. NDABAMBI Analysis Date: 02-JUN-10 22:00 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	8.9	5.0	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: C. VAUGHN Analysis Date: 01-JUN-10 09:30 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 02-JUN-10 11:22 Instrument: ICP Test: M403.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.032	0.010	mg/L

CADMIUM ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 02-JUN-10 11:22 Instrument: ICP Test: M408.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 02-JUN-10 11:22 Instrument: ICP Test: M410.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
CHROMIUM	0.027	0.010	mg/L

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 02-JUN-10 11:22 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units

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COPPER	0.057	0.010	mg/L

LEAD ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 02-JUN-10 11:22 Instrument: ICP Test: M416.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
LEAD	BDL	0.010	mg/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 02-JUN-10 11:22 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	0.029	0.0050	mg/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 02-JUN-10 11:22 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	0.20	0.020	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 NELAC:Y

Analyst: S. O'NEAL Analysis Date: 01-JUN-10 17:00 Instrument: PREP Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1 REV. 3.0 NELAC:Y

Analyst: S. O'NEAL Analysis Date: 03-JUN-10 12:55 Instrument: CVAA Test: M420.2.0

Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

Analyst: C. WILLHITE Analysis Date: 31-MAY-10 13:15 Instrument: PREP Test: P243.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 04-JUN-10 01:04 Instrument: GC/MS SVOA Test: O501.3.0

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
2,4,6-TRICHLOROPHENOL	BDL	10	ug/L

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Sample ID: A882797 OUTFALL 008

4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L
2,4-DIMETHYLPHENOL	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
4-NITROPHENOL	BDL	10	ug/L
2,4-DINITROPHENOL	BDL	20	ug/L
4,6-DINITRO-O-CRESOL	BDL	10	ug/L
PENTACHLOROPHENOL	BDL	10	ug/L
PHENOL	EX	10	ug/L
ACENAPHTHENE	BDL	10	ug/L
BENZIDINE	BDL	20	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	10	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	10	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	10	ug/L
3,3'-DICHLOROBENZIDINE	BDL	10	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
FLUORANTHENE	BDL	10	ug/L
4-CHLOROPHENYL-PHENYLETHER	BDL	10	ug/L
4-BROMODIPHENYL ETHER	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
NAPHTHALENE	15	10	ug/L
NITROBENZENE	BDL	10	ug/L
N-NITROSODIMETHYLAMINE	BDL	10	ug/L
N-NITROSO-DIPROPYLAMINE	BDL	10	ug/L
N-NITROSODIPHENYLAMINE	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
(BENZYLBUTYLPHTHALATE) BUTYLBENZYLPHTHALATE	BDL	10	ug/L
DI-N-BUTYLPHTHALATE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L

HERITAGE ENVIRONMENTAL SERVICES

Sample ID: A882797 OUTFALL 008

DIMETHYLPHTHALATE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L
BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
PHENANTHRENE	BDL	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
PYRENE	BDL	10	ug/L
1,2-DIPHENYLHYDRAZINE	BDL	10	ug/L
2-METHYLPHENOL (O-CRESOL)	46	10	ug/L
3-METHYLPHENOL (M-CRESOL)	*	10	ug/L
4-METHYLPHENOL (P-CRESOL)	EX	10	ug/L
...			
SURROGATE RECOVERY			

2-FLUOROPHENOL	70		% Rec
PHENOL-D5	40		% Rec
NITROBENZENE-D5	79		% Rec
2-FLUOROBIPHENYL	72		% Rec
2,4,6-TRIBROMOPHENOL	91		% Rec
TERPHENYL-D14	47		% Rec

DUE TO LABORATORY INSTRUMENT CONSTRAINTS, BENZIDINE AND 2,4-DINITROPHENOL ARE REPORTED AT DETECTION LIMITS OF 20 UG/L INSTEAD OF 10 UG/L

*NOTE: 3-Methylphenol and 4-Methylphenol co-elute.

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: C. WILLHITE Analysis Date: 04-JUN-10 19:02 Instrument: GC/MS SVOA Test: O501.3.1

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
PHENOL	650	100	ug/L
3-METHYLPHENOL (M-CRESOL)	*	100	ug/L
4-METHYLPHENOL (P-CRESOL)	* 480	100	ug/L
...			
SURROGATE RECOVERY			

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Sample ID: A882797 OUTFALL 008

2-FLUOROPHENOL	69		% Rec
PHENOL-D5	53		% Rec
NITROBENZENE-D5	84		% Rec
2-FLUOROBIPHENYL	73		% Rec
2,4,6-TRIBROMOPHENOL	81		% Rec
TERPHENYL-D14	35		% Rec

Dilution necessary due to high concentration of target analytes.

1:10 Dilution

*NOTE: 3-Methylphenol and 4-Methylphenol co-elute.

VOLATILE PRIORITY POLLUTANTS EPA 624 NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 27-MAY-10 00:42 Instrument: GC/MS VOA Test: O502.3.0

Parameter	Result	Det. Limit	Units
ACROLEIN	BDL	500	ug/L
ACRYLONITRILE	BDL	700	ug/L
BENZENE	BDL	50	ug/L
BROMOFORM	BDL	50	ug/L
CARBON TETRACHLORIDE	BDL	50	ug/L
CHLOROBENZENE	BDL	50	ug/L
CHLOROETHANE	BDL	50	ug/L
2-CHLOROETHYLVINYLETHER	BDL	50	ug/L
CHLOROFORM	BDL	50	ug/L
DIBROMOCHLOROMETHANE	BDL	50	ug/L
BROMODICHLOROMETHANE	BDL	50	ug/L
1,1-DICHLOROETHANE	BDL	50	ug/L
1,2-DICHLOROETHANE	BDL	50	ug/L
1,1-DICHLOROETHENE	BDL	50	ug/L
1,2-DICHLOROPROPANE	BDL	50	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	50	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	50	ug/L
ETHYL BENZENE	BDL	50	ug/L
BROMOMETHANE	BDL	50	ug/L
CHLOROMETHANE	BDL	50	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	50	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	50	ug/L
TETRACHLOROETHENE	BDL	50	ug/L
TOLUENE	BDL	50	ug/L
1,2-DICHLOROETHENE (CIS AND TRANS)	BDL	50	ug/L
1,1,1-TRICHLOROETHANE	BDL	50	ug/L
1,1,2-TRICHLOROETHANE	BDL	50	ug/L
TRICHLOROETHENE	BDL	50	ug/L

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Sample ID: A882797 OUTFALL 008

TRICHLOROFLUOROMETHANE	BDL	50	ug/L
VINYL CHLORIDE	BDL	50	ug/L
2-BUTANONE	750	50	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	98		% Rec
TOLUENE-D8	97		% Rec
4-BROMOFLUOROBENZENE	113		% Rec

DILUTION 1:10

PH6

Acrolein & Acrylonitrile reported only for screening purposes. Results should be considered estimated.

Unable to analyze sample at lower dilution due to high concentration of non-target analytes.

Unable to analyze at lower dilution due to sample matrix. Sample foamed.

ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

Analyst: T. PINCKERT Analysis Date: 27-MAY-10 Instrument: PREP Test: P223.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	10		mL

ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 NELAC:Y

Analyst: A. DUKES Analysis Date: 01-JUN-10 22:39 Instrument: GC/ECD Test: O305.0.0

Prep: ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608 P223.1.0

Parameter	Result	Det. Limit	Units
ALPHA-BHC	BDL	10	ug/L
BETA-BHC	BDL	10	ug/L
DELTA-BHC	BDL	10	ug/L
GAMMA-BHC (LINDANE)	BDL	10	ug/L
HEPTACHLOR	BDL	10	ug/L
ALDRIN	BDL	10	ug/L
HEPTACHLOR EPOXIDE	BDL	10	ug/L
ENDOSULFAN I	BDL	10	ug/L
DIELDRIN	BDL	10	ug/L
4,4'-DDE	BDL	10	ug/L
ENDRIN	BDL	10	ug/L
ENDOSULFAN II	BDL	10	ug/L
4,4'-DDD	BDL	10	ug/L

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Sample ID: A882797 OUTFALL 008

ENDOSULFAN SULFATE	BDL	10	ug/L
4,4'-DDT	BDL	10	ug/L
METHOXYCHLOR	BDL	10	ug/L
ENDRIN ALDEHYDE	BDL	10	ug/L
ALPHA-CHLORDANE	BDL	10	ug/L
GAMMA-CHLORDANE	BDL	10	ug/L
CHLORDANE	BDL	10	ug/L
TOXAPHENE	BDL	10	ug/L
PCB AROCLOR 1016	BDL	10	ug/L
PCB AROCLOR 1221	BDL	10	ug/L
PCB AROCLOR 1232	BDL	10	ug/L
PCB AROCLOR 1242	BDL	10	ug/L
PCB AROCLOR 1248	BDL	10	ug/L
PCB AROCLOR 1254	BDL	10	ug/L
PCB AROCLOR 1260	BDL	10	ug/L
...			
SURROGATE RECOVERY			

DECACHLOROBIPHENYL (DCB)	53.1		% Rec

Sample Comments

* See Note for Parameter
BDL Below Detection Limit
EX Exceeds calibration range. See Replicate

Sample was not received on ice at temperature 5.4 C.
Sample chain of custody number 72780.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.
IL ELAP / NELAP Accreditation # 100401 Indiana SDWA Lab Accred. No. C-49-01

Approved by: CHRISTINE SARKAN 14-JUN-10

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Quality Assurance Report

60022

14-JUN-10

Service Location	Submitter
Heritage Environmental Services, LLC Commercial Laboratory Operations 7901 West Morris Street Indianapolis, IN 46231 (317) 243-8304	WARD HERST HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 ST. CHARLES, MO 63304

Sample ID	Client ID	Date/Time Sampled	Date Received	Date Released
A882797	OUTFALL 008.....	25-May-10 11:25	26-May-10	14-Jun-2010
	DESCRIPTION :	ANNUAL LEACHATE		
	LOCATION :	BRIDGETON LANDFILL		
	:	830871		

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06/14/2010 04:19 PM
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ARSENIC ICP EPA 200.7 REV. 4.4 — M403.3
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R567475 Prep — Analyst: C VAUGHN — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317777	NA	Analytical Run: R567550							
LCS	Q2317778	SPEX	Analytical Run: R567550							
SAMPLE	A882797	Rep: 0	Analytical Run: R567550							
BLA02	Q2317948	NA	Analytical Run: R567615							
LCS	Q2317949	INORGANIC	Analytical Run: R567615							
DUP02	Q2317950	A882705	Analytical Run: R567615							
SPI02	Q2317951	A882705	Analytical Run: R567615							

R567550 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2318373	PERKIN ELE	ARSENIC	0.01			0.0126	mg/L	126.0	
ICV01	Q2318372	PERKIN ELM	ARSENIC	1			1.01	mg/L	101.0	
CDL01	Q2318357	PERKIN ELM	ARSENIC	0.02			0.0223	mg/L	111.5	
ICS-AB	Q2318334	PERKIN ELM	ARSENIC	0.1			0.113	mg/L	113.0	
BLA02	Q2317777	NA	ARSENIC			<	0.00400	mg/L		
LCS	Q2317778	SPEX	ARSENIC	2			2.07	mg/L	103.5	
SER01	Q2318489	A882705	ARSENIC	0		CNA	0.0256	mg/L		
CCV	Q2318480	INORGANIC	ARSENIC	2			2.00	mg/L	100.0	
BLA01	Q2318470	NA	ARSENIC			<	0.00400	mg/L		
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
CCV	Q2318481	INORGANIC	ARSENIC	2			2.02	mg/L	101.0	
BLA01	Q2318471	NA	ARSENIC				0.00420	mg/L		
CDL01	Q2318487	INORGANIC	ARSENIC	0.01			0.0121	mg/L	121.0	
ICS-AB	Q2318475	PERKIN ELM	ARSENIC	0.1			0.110	mg/L	110.0	

Q2318489 1:5 Dilution.

R567615 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 02-Jun-10 — Review Date: 03-Jun-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317948	NA	ARSENIC			<	0.00200	mg/L		
LCS	Q2317949	INORGANIC	ARSENIC	2			2.10	mg/L	105.0	
DUP02	Q2317950	A882705	ARSENIC	0		BDL		mg/L		
SPI02	Q2317951	A882705	ARSENIC	0	2		2.12	mg/L	106.0	

LEAD ICP EPA 200.7 REV. 4.4 — M416.3
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R567475 Prep — Analyst: C VAUGHN — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317777	NA	Analytical Run: R567550							
LCS	Q2317778	SPEX	Analytical Run: R567550							
SAMPLE	A882797	Rep: 0	Analytical Run: R567550							

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LEAD ICP EPA 200.7 REV. 4.4
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

M416.3

R567475 Prep — Analyst: C VAUGHN — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317948	NA	Analytical Run: R567615							
LCS	Q2317949	INORGANIC	Analytical Run: R567615							
DUP02	Q2317950	A882705	Analytical Run: R567615							
SPI02	Q2317951	A882705	Analytical Run: R567615							

R567550 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2318373	PERKIN ELE	LEAD	0.01			0.00846	mg/L	84.6	
ICV01	Q2318372	PERKIN ELM	LEAD	1			1.01	mg/L	101.0	
LCCV	Q2318375	INORGANIC	LEAD	0.01			0.00972	mg/L	97.2	
CDL01	Q2318357	PERKIN ELM	LEAD	0.100			0.104	mg/L	104.0	
ICS-AB	Q2318334	PERKIN ELM	LEAD	1.00			0.954	mg/L	95.4	
BLA02	Q2317777	NA	LEAD			<	0.00200	mg/L		
LCS	Q2317778	SPEX	LEAD	0.5			0.483	mg/L	96.6	
SER01	Q2318489	A882705	LEAD	0		BDL		mg/L		
CCV	Q2318480	INORGANIC	LEAD	5.00			4.84	mg/L	96.8	
BLA01	Q2318470	NA	LEAD			<	0.00200	mg/L		
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
CCV	Q2318481	INORGANIC	LEAD	5.00			4.84	mg/L	96.8	
BLA01	Q2318471	NA	LEAD			<	0.00200	mg/L		
CDL01	Q2318487	INORGANIC	LEAD	0.01			0.00903	mg/L	90.3	
ICS-AB	Q2318475	PERKIN ELM	LEAD	1.00			0.935	mg/L	93.5	
Q2318489	1:5 Dilution.									

R567615 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 02-Jun-10 — Review Date: 03-Jun-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317948	NA	LEAD			<	0.00200	mg/L		
LCS	Q2317949	INORGANIC	LEAD	0.5			0.518	mg/L	103.6	
DUP02	Q2317950	A882705	LEAD	0		BDL		mg/L		
SPI02	Q2317951	A882705	LEAD	0	0.5		0.512	mg/L	102.4	

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED.

G403.8

R567429 Analytical — Analyst: S BOXUM — Reviewer: P SPENCE — Run Date: 27-May-10 — Review Date: 01-Jun-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2317312		SUSPENDED SOLIDS			BDL	1	mg/L		
LFB01	Q2317313		SUSPENDED SOLIDS	130			128	mg/L	98.5	
SPI01	Q2317315	A882764	SUSPENDED SOLIDS	37	65		101	mg/L	96.5	
DPS01	Q2317316	A882764	SUSPENDED SOLIDS	37	65		106	mg/L	106.2	7.5
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							

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TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. G403.8

R567429 Analyst: S BOXUM Run Date: 27-May-10
Analytical Reviewer: P SPENCE Review Date: 01-Jun-10 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DUP01	Q2317317	A882826	SUSPENDED SOLIDS	4			3	mg/L		28.6
LFB01	Q2317326		SUSPENDED SOLIDS	130			139	mg/L	106.9	
BLA01	Q2317327		SUSPENDED SOLIDS			BDL	1	mg/L		

Q2317317 Duplicate is acceptable. At concentrations less than ten times the
Q2317317 detection limit, +/- the detection limit is the acceptance criteria
Q2317317 for the difference in concentration.

MERCURY CVAA EPA 245.1 REV. 3.0 M420.2
Prep : MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0

R567553 Analyst: S O'NEAL Run Date: 01-Jun-10 Instrument: PREP
Prep Reviewer: W WATNESS Review Date: 02-Jun-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS	Q2318382	LEEMAN	Analytical Run: R567653							
BLA02	Q2318383	NA	Analytical Run: R567653							
SPI02	Q2318384	A882764	Analytical Run: R567653							
DPS02	Q2318385	A882764	Analytical Run: R567653							
SAMPLE	A882797	Rep: 0	Analytical Run: R567653							

R567653 Analyst: S O'NEAL Run Date: 03-Jun-10 Instrument: CVAA
Analytical Reviewer: S ENDERSEN Review Date: 03-Jun-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
ICV01	Q2319196	LEEMAN	MERCURY	0.002			0.00201	mg/L	100.5	
CDL01	Q2319230	SPEX	MERCURY	0.0002			0.000185	mg/L	92.5	
LCS	Q2318382	LEEMAN	MERCURY	0.002			0.00204	mg/L	102.0	
BLA02	Q2318383	NA	MERCURY			<	0.000080	mg/L		
SPI02	Q2318384	A882764	MERCURY	0	0.001		0.00112	mg/L	112.0	
DPS02	Q2318385	A882764	MERCURY	0	0.001		0.00111	mg/L	111.0	0.9
CCV	Q2319203	SPEX	MERCURY	0.003			0.00302	mg/L	100.7	
BLA01	Q2319220	NA	MERCURY			<	0.000080	mg/L		
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
CCV	Q2319204	SPEX	MERCURY	0.003			0.00302	mg/L	100.7	
BLA01	Q2319221	NA	MERCURY			<	0.000080	mg/L		
CDL01	Q2319231	SPEX	MERCURY	0.0002			0.000164	mg/L	82.0	

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A G166.0

R567606 Analyst: B NDABAMBI Run Date: 02-Jun-10
Analytical Reviewer: P SPENCE Review Date: 03-Jun-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2318780		HEM, TOTAL (OIL AND GREASE)			BDL	5.0	mg/L		
LFB01	Q2318781		HEM, TOTAL (OIL AND GREASE)	40.0			34.7	mg/L	86.8	
DLFB01	Q2318782		HEM, TOTAL (OIL AND GREASE)	40.0			34.7	mg/L	86.8	0
SPI01	Q2318788	A882619	HEM, TOTAL (OIL AND GREASE)	6.02	43.0		43.5	mg/L	87.2	
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							

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COPPER ICP EPA 200.7 REV. 4.4
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

M412.3

R567475 Prep — Analyst: C VAUGHN — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317777	NA	Analytical Run: R567550							
LCS	Q2317778	SPEX	Analytical Run: R567550							
DUP02	Q2317779	A882705	Analytical Run: R567550							
SPI02	Q2317780	A882705	Analytical Run: R567550							
SAMPLE	A882797	Rep: 0	Analytical Run: R567550							

R567550 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2318373	PERKIN ELE	COPPER	0.01			0.0104	mg/L	104.0	
ICV01	Q2318372	PERKIN ELM	COPPER	1			1.03	mg/L	103.0	
LCCV	Q2318375	INORGANIC	COPPER	0.01			0.0102	mg/L	102.0	
CDL01	Q2318357	PERKIN ELM	COPPER	0.050			0.0534	mg/L	106.8	
ICS-AB	Q2318334	PERKIN ELM	COPPER	0.500			0.560	mg/L	112.0	
BLA02	Q2317777	NA	COPPER			<	0.00400	mg/L		
LCS	Q2317778	SPEX	COPPER	0.25			0.253	mg/L	101.2	
SER01	Q2318489	A882705	COPPER	0.0292		CNA	0.0307	mg/L		
DUP02	Q2317779	A882705	COPPER	0.0292		CNA	0.0292	mg/L		
SPI02	Q2317780	A882705	COPPER	0.0292	0.250		0.286	mg/L	102.7	
CCV	Q2318480	INORGANIC	COPPER	5.00			5.03	mg/L	100.6	
BLA01	Q2318470	NA	COPPER			<	0.00400	mg/L		
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
CCV	Q2318481	INORGANIC	COPPER	5.00			5.05	mg/L	101.0	
BLA01	Q2318471	NA	COPPER			<	0.00400	mg/L		
CDL01	Q2318487	INORGANIC	COPPER	0.01			0.0104	mg/L	104.0	
ICS-AB	Q2318475	PERKIN ELM	COPPER	0.500			0.566	mg/L	113.2	
Q2318489	1:5 Dilution.									

CADMIUM ICP EPA 200.7 REV. 4.4
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

M408.3

R567475 Prep — Analyst: C VAUGHN — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317777	NA	Analytical Run: R567550							
LCS	Q2317778	SPEX	Analytical Run: R567550							
SAMPLE	A882797	Rep: 0	Analytical Run: R567550							
BLA02	Q2317948	NA	Analytical Run: R567615							
LCS	Q2317949	INORGANIC	Analytical Run: R567615							
DUP02	Q2317950	A882705	Analytical Run: R567615							
SPI02	Q2317951	A882705	Analytical Run: R567615							

R567550 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD

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MSD 024272

CADMIUM ICP EPA 200.7 REV. 4.4 **M408.3**
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R567550 Analyst: J KRAMER Run Date: 01-Jun-10
Analytical Reviewer: S ENDERSEN Review Date: 02-Jun-10 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2318373	PERKIN ELE	CADMIUM	0.0050			0.00494	mg/L	98.8	
ICV01	Q2318372	PERKIN ELM	CADMIUM	1			1.02	mg/L	102.0	
LCCV	Q2318375	INORGANIC	CADMIUM	0.0050			0.00479	mg/L	95.8	
CDL01	Q2318357	PERKIN ELM	CADMIUM	0.010			0.0102	mg/L	102.0	
ICS-AB	Q2318334	PERKIN ELM	CADMIUM	1.00			1.10	mg/L	110.0	
BLA02	Q2317777	NA	CADMIUM			<	0.000400	mg/L		
LCS	Q2317778	SPEX	CADMIUM	0.05			0.0489	mg/L	97.8	
SER01	Q2318489	A882705	CADMIUM	0		CNA	0.00160	mg/L		
CCV	Q2318480	INORGANIC	CADMIUM	5.00			4.99	mg/L	99.8	
BLA01	Q2318470	NA	CADMIUM			<	0.000400	mg/L		
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
CCV	Q2318481	INORGANIC	CADMIUM	5.00			4.99	mg/L	99.8	
BLA01	Q2318471	NA	CADMIUM			<	0.000400	mg/L		
CDL01	Q2318487	INORGANIC	CADMIUM	0.0050			0.00486	mg/L	97.2	
ICS-AB	Q2318475	PERKIN ELM	CADMIUM	1.00			1.09	mg/L	109.0	

Q2318489 1:5 Dilution.

R567615 Analyst: J KRAMER Run Date: 02-Jun-10 Instrument: ICP
Analytical Reviewer: S ENDERSEN Review Date: 03-Jun-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317948	NA	CADMIUM			<	0.000400	mg/L		
LCS	Q2317949	INORGANIC	CADMIUM	0.05			0.0519	mg/L	103.8	
DUP02	Q2317950	A882705	CADMIUM	0		BDL		mg/L		
SPI02	Q2317951	A882705	CADMIUM	0	0.05		0.0519	mg/L	103.8	

ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 **O305.0**
Prep : ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

R567169 Analyst: T PINCKERT Run Date: 27-May-10 Instrument: PREP
Prep Reviewer: E WERNZ Review Date: 28-May-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DLCS	Q2315314	INDY	Analytical Run: R567386							
SPI02	Q2315315	A882382	Analytical Run: R567386							
BLA02	Q2316760		Analytical Run: R567574							
LCS	Q2316761		Analytical Run: R567574							
SAMPLE	A882797	Rep: 0	Analytical Run: R567574							

Q2315314 EDRIN ALDEHYDE , RSD is outside limits, however individual recoveries are within
Q2315314 reporting limits.

R567386 Analyst: A DUKES Run Date: 24-May-10 Instrument: GC/ECD
Analytical Reviewer: E WERNZ Review Date: 26-May-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DLCS	Q2315314	INDY	ALPHA-BHC	0.20			0.162	ug/L	81.0	1.8
DLCS	Q2315314	INDY	BETA-BHC	0.20			0.180	ug/L	90.0	5.4

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ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 **O305.0**
Prep : ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

R567386 Analyst: A DUKES Run Date: 24-May-10
Analytical Reviewer: E WERNZ Review Date: 26-May-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DLCS	Q2315314	INDY	DELTA-BHC	0.20			0.180	ug/L	90.0	9.9
DLCS	Q2315314	INDY	GAMMA-BHC (LINDANE)	0.20			0.175	ug/L	87.5	1.7
DLCS	Q2315314	INDY	HEPTACHLOR	0.20			0.080	ug/L	40.0	1.2
DLCS	Q2315314	INDY	ALDRIN	0.20			0.161	ug/L	80.5	7.8
DLCS	Q2315314	INDY	HEPTACHLOR EPOXIDE	0.20			0.188	ug/L	94.0	4.7
DLCS	Q2315314	INDY	ENDOSULFAN I	0.20			0.199	ug/L	99.5	2.0
DLCS	Q2315314	INDY	DIELDRIN	0.40			0.394	ug/L	98.5	1.7
DLCS	Q2315314	INDY	4,4'-DDE	0.40			0.402	ug/L	100.5	3.3
DLCS	Q2315314	INDY	ENDRIN	0.40			0.405	ug/L	101.2	2.7
DLCS	Q2315314	INDY	ENDOSULFAN II	0.40			0.407	ug/L	101.8	2.8
DLCS	Q2315314	INDY	4,4'-DDD	0.40			0.383	ug/L	95.8	3.5
DLCS	Q2315314	INDY	ENDOSULFAN SULFATE	0.40			0.327	ug/L	81.8	3.7
DLCS	Q2315314	INDY	4,4'-DDT	0.40			0.390	ug/L	97.5	4.7
DLCS	Q2315314	INDY	METHOXYCHLOR	2.00			2.112	ug/L	105.6	4.4
DLCS	Q2315314	INDY	ENDRIN ALDEHYDE	0.40			0.324	ug/L	81.0	38.2
DLCS	Q2315314	INDY	ALPHA-CHLORDANE	0.20			0.177	ug/L	88.5	1.1
DLCS	Q2315314	INDY	GAMMA-CHLORDANE	0.20			0.200	ug/L	100.0	1.5
SPI02	Q2315315	A882382	ALPHA-BHC	0	0.20		0.137	ug/L	68.5	
SPI02	Q2315315	A882382	BETA-BHC	0	0.20		0.139	ug/L	69.5	
SPI02	Q2315315	A882382	DELTA-BHC	0	0.20		0.183	ug/L	91.5	
SPI02	Q2315315	A882382	GAMMA-BHC (LINDANE)	0	0.20		0.176	ug/L	88.0	
SPI02	Q2315315	A882382	HEPTACHLOR	0	0.20		0.080	ug/L	40.0	
SPI02	Q2315315	A882382	ALDRIN	0	0.20		0.165	ug/L	82.5	
SPI02	Q2315315	A882382	HEPTACHLOR EPOXIDE	0	0.20		0.243	ug/L	121.5	
SPI02	Q2315315	A882382	ENDOSULFAN I	0	0.20		0.211	ug/L	105.5	
SPI02	Q2315315	A882382	DIELDRIN	0	0.40		0.394	ug/L	98.5	
SPI02	Q2315315	A882382	4,4'-DDE	0	0.40		0.345	ug/L	86.2	
SPI02	Q2315315	A882382	ENDRIN	0	0.40		0.553	ug/L	138.2	
SPI02	Q2315315	A882382	ENDOSULFAN II	0	0.40		0.393	ug/L	98.2	
SPI02	Q2315315	A882382	4,4'-DDD	0	0.40		0.397	ug/L	99.2	
SPI02	Q2315315	A882382	ENDOSULFAN SULFATE	0	0.40		0.330	ug/L	82.5	
SPI02	Q2315315	A882382	4,4'-DDT	0	0.40		0.507	ug/L	126.8	
SPI02	Q2315315	A882382	METHOXYCHLOR	0	2.00		2.788	ug/L	139.4	
SPI02	Q2315315	A882382	ENDRIN ALDEHYDE	0	0.40		0.302	ug/L	75.5	
SPI02	Q2315315	A882382	ALPHA-CHLORDANE	0	0.20		0.152	ug/L	76.0	
SPI02	Q2315315	A882382	GAMMA-CHLORDANE	0	0.20		0.177	ug/L	88.5	

Q2315314 EDRIN ALDEHYDE , RSD is outside limits, however individual recoveries are within
Q2315314 reporting limits.

R567574 Analyst: A DUKES Run Date: 01-Jun-10 Instrument: GC/ECD
Analytical Reviewer: E WERNZ Review Date: 02-Jun-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2319654		ALPHA-BHC			LIN				1.000
CAL01	Q2319654		BETA-BHC	73300000						6.83
CAL01	Q2319654		DELTA-BHC			LIN				0.999
CAL01	Q2319654		GAMMA-BHC (LINDANE)			LIN				0.996
CAL01	Q2319654		HEPTACHLOR	12400000						9.01

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ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 **O305.0**
Prep : ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

R567574 Analyst: A DUKES
Analytical Reviewer: E WERNZ

Run Date: 01-Jun-10
Review Date: 02-Jun-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
				0						
CAL01	Q2319654		ALDRIN	19300000						2.97
				0						
CAL01	Q2319654		HEPTACHLOR EPOXIDE	14800000						5.86
				0						
CAL01	Q2319654		ENDOSULFAN I	16300000						5.95
				0						
CAL01	Q2319654		DIELDRIN	14300000						5.79
				0						
CAL01	Q2319654		4,4'-DDE	16000000						7.01
				0						
CAL01	Q2319654		ENDRIN	10200000						7.32
				0						
CAL01	Q2319654		ENDOSULFAN II	10500000						9.30
				0						
CAL01	Q2319654		4,4'-DDD	10300000						7.52
				0						
CAL01	Q2319654		ENDOSULFAN SULFATE	84800000						9.22
CAL01	Q2319654		4,4'-DDT			LIN				0.99
CAL01	Q2319654		METHOXYCHLOR			LIN				0.997
CAL01	Q2319654		ENDRIN ALDEHYDE	88900000						9.90
CAL01	Q2319654		ALPHA-CHLORDANE	14700000						4.86
				0						
CAL01	Q2319654		GAMMA-CHLORDANE	15400000						4.12
				0						
CAL01	Q2319654		DECACHLOROBIPHENYL (DCB)	14600000						10.24
				0						
ICV01	Q2319655		ALPHA-BHC	50.0			52.2	ug/L	104.4	
ICV01	Q2319655		BETA-BHC	50.0			56.1	ug/L	112.2	
ICV01	Q2319655		DELTA-BHC	50.0			54.5	ug/L	109.0	
ICV01	Q2319655		GAMMA-BHC (LINDANE)	50.0			52.6	ug/L	105.2	
ICV01	Q2319655		HEPTACHLOR	50.0			53.4	ug/L	106.8	
ICV01	Q2319655		ALDRIN	50.0			52.6	ug/L	105.2	
ICV01	Q2319655		HEPTACHLOR EPOXIDE	50.0			49.7	ug/L	99.4	
ICV01	Q2319655		ENDOSULFAN I	50.0			50.7	ug/L	101.4	
ICV01	Q2319655		DIELDRIN	50.0			51.2	ug/L	102.4	
ICV01	Q2319655		4,4'-DDE	50.0			50.2	ug/L	100.4	
ICV01	Q2319655		ENDRIN	50.0			58.0	ug/L	116.0	
ICV01	Q2319655		ENDOSULFAN II	50.0			55.6	ug/L	111.2	
ICV01	Q2319655		4,4'-DDD	50.0			52.6	ug/L	105.2	
ICV01	Q2319655		ENDOSULFAN SULFATE	50.0			60.0	ug/L	120.0	
ICV01	Q2319655		4,4'-DDT	50.0			61.6	ug/L	123.2	
ICV01	Q2319655		ENDRIN ALDEHYDE	50.0			57.3	ug/L	114.6	
ICV01	Q2319655		ALPHA-CHLORDANE	50.0			49.7	ug/L	99.4	
ICV01	Q2319655		GAMMA-CHLORDANE	50.0			49.1	ug/L	98.2	
BLA02	Q2316760		ALPHA-BHC			BDL	0.05	ug/L		
BLA02	Q2316760		BETA-BHC			BDL	0.05	ug/L		
BLA02	Q2316760		DELTA-BHC			BDL	0.05	ug/L		
BLA02	Q2316760		GAMMA-BHC (LINDANE)			BDL	0.05	ug/L		
BLA02	Q2316760		HEPTACHLOR			BDL	0.05	ug/L		
BLA02	Q2316760		ALDRIN			BDL	0.05	ug/L		
BLA02	Q2316760		HEPTACHLOR EPOXIDE			BDL	0.05	ug/L		
BLA02	Q2316760		ENDOSULFAN I			BDL	0.05	ug/L		

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ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 **O305.0**
Prep : ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

R567574 Analyst: A DUKES
Analytical Reviewer: E WERNZ
Run Date: 01-Jun-10
Review Date: 02-Jun-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2316760		DIELDRIN			BDL	0.1	ug/L		
BLA02	Q2316760		4,4'-DDE			BDL	0.1	ug/L		
BLA02	Q2316760		ENDRIN			BDL	0.1	ug/L		
BLA02	Q2316760		ENDOSULFAN II			BDL	0.1	ug/L		
BLA02	Q2316760		4,4'-DDD			BDL	0.1	ug/L		
BLA02	Q2316760		ENDOSULFAN SULFATE			BDL	0.1	ug/L		
BLA02	Q2316760		4,4'-DDT			BDL	0.1	ug/L		
BLA02	Q2316760		ENDRIN ALDEHYDE			BDL	0.1	ug/L		
BLA02	Q2316760		ALPHA-CHLORDANE			BDL	0.5	ug/L		
BLA02	Q2316760		GAMMA-CHLORDANE			BDL	0.5	ug/L		
BLA02	Q2316760		CHLORDANE			BDL	0.5	ug/L		
BLA02	Q2316760		TOXAPHENE			BDL	1	ug/L		
BLA02	Q2316760		PCB AROCLOR 1016			BDL	0.5	ug/L		
BLA02	Q2316760		PCB AROCLOR 1232			BDL	0.5	ug/L		
BLA02	Q2316760		PCB AROCLOR 1242			BDL	0.5	ug/L		
BLA02	Q2316760		PCB AROCLOR 1248			BDL	0.5	ug/L		
BLA02	Q2316760		PCB AROCLOR 1254			BDL	0.5	ug/L		
BLA02	Q2316760		PCB AROCLOR 1260			BDL	0.5	ug/L		
BLA02	Q2316760		DECACHLOROBIPHENYL (DCB)				43.4		86.8	
LCS	Q2316761		ALPHA-BHC	0.20			0.183	ug/L	91.5	
LCS	Q2316761		BETA-BHC	0.20			0.196	ug/L	98.0	
LCS	Q2316761		DELTA-BHC	0.20			0.166	ug/L	83.0	
LCS	Q2316761		GAMMA-BHC (LINDANE)	0.20			0.185	ug/L	92.5	
LCS	Q2316761		HEPTACHLOR	0.20			0.185	ug/L	92.5	
LCS	Q2316761		ALDRIN	0.20			0.194	ug/L	97.0	
LCS	Q2316761		HEPTACHLOR EPOXIDE	0.20			0.213	ug/L	106.5	
LCS	Q2316761		ENDOSULFAN I	0.20			0.198	ug/L	99.0	
LCS	Q2316761		DIELDRIN	0.40			0.396	ug/L	99.0	
LCS	Q2316761		4,4'-DDE	0.40			0.429	ug/L	107.2	
LCS	Q2316761		ENDRIN	0.40			0.458	ug/L	114.5	
LCS	Q2316761		ENDOSULFAN II	0.40			0.397	ug/L	99.2	
LCS	Q2316761		4,4'-DDD	0.40			0.397	ug/L	99.2	
LCS	Q2316761		ENDOSULFAN SULFATE	0.40			0.444	ug/L	111.0	
LCS	Q2316761		4,4'-DDT	0.40			0.515	ug/L	128.8	
LCS	Q2316761		METHOXYCHLOR	2.00			2.948	ug/L	147.4	
LCS	Q2316761		ENDRIN ALDEHYDE	0.40			0.415	ug/L	103.8	
LCS	Q2316761		ALPHA-CHLORDANE	0.20			0.181	ug/L	90.5	
LCS	Q2316761		GAMMA-CHLORDANE	0.20			0.186	ug/L	93.0	
LCS	Q2316761		DECACHLOROBIPHENYL (DCB)	50			44.4		88.8	
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
CCV	Q2319656		ALPHA-BHC	20.0			21.1	ug/L	105.5	
CCV	Q2319656		BETA-BHC	20.0			21.0	ug/L	105.0	
CCV	Q2319656		DELTA-BHC	20.0			20.7	ug/L	103.5	
CCV	Q2319656		GAMMA-BHC (LINDANE)	20.0			21.4	ug/L	107.0	
CCV	Q2319656		HEPTACHLOR	20.0			22.8	ug/L	114.0	
CCV	Q2319656		ALDRIN	20.0			21.5	ug/L	107.5	
CCV	Q2319656		HEPTACHLOR EPOXIDE	20.0			22.4	ug/L	112.0	

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ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 — O305.0
Prep : ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

R567574 Analytical — Analyst: A DUKES — Reviewer: E WERNZ — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCV	Q2319656		ENDOSULFAN I	20.0			21.3	ug/L	106.5	
CCV	Q2319656		DIELDRIN	40.0			43.8	ug/L	109.5	
CCV	Q2319656		4,4'-DDE	40.0			43.5	ug/L	108.8	
CCV	Q2319656		ENDRIN	40.0			42.7	ug/L	106.8	
CCV	Q2319656		ENDOSULFAN II	40.0			44.0	ug/L	110.0	
CCV	Q2319656		4,4'-DDD	40.0			43.3	ug/L	108.2	
CCV	Q2319656		ENDOSULFAN SULFATE	40.0			48.7	ug/L	121.8	
CCV	Q2319656		4,4'-DDT	40.0			46.7	ug/L	116.8	
CCV	Q2319656		METHOXYCHLOR	200.0			240.7	ug/L	120.4	
CCV	Q2319656		ENDRIN ALDEHYDE	40.0			43.3	ug/L	108.2	
CCV	Q2319656		ALPHA-CHLORDANE	20.0			21.1	ug/L	105.5	
CCV	Q2319656		GAMMA-CHLORDANE	20.0			21.1	ug/L	105.5	
CCV	Q2319656		DECACHLOROBIPHENYL (DCB)	50			42.0		84.0	

VOLATILE PRIORITY POLLUTANTS EPA 624 — O502.3

R567497 Analytical — Analyst: H WILLIAMS — Reviewer: L SMITH — Run Date: 26-May-10 — Review Date: 02-Jun-10 — Instrument: GC/MS VOA

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2315275		Analysis Date/Time: 19-May-10 07:57							
CAL01	Q2315275		ACROLEIN			LIN				0.997
CAL01	Q2315275		ACRYLONITRILE	0.1117						6.5
CAL01	Q2315275		BENZENE	1.0234						4.6
CAL01	Q2315275		BROMOFORM			LIN				0.996
CAL01	Q2315275		CARBON TETRACHLORIDE	0.2941						8.9
CAL01	Q2315275		CHLOROBENZENE	1.8248						1.9
CAL01	Q2315275		CHLOROETHANE	0.1758						14.3
CAL01	Q2315275		2-CHLOROETHYLVINYLETHER			LIN				0.999
CAL01	Q2315275		CHLOROFORM	0.4298						5.2
CAL01	Q2315275		DIBROMOCHLOROMETHANE	0.4422						13.8
CAL01	Q2315275		BROMODICHLOROMETHANE	0.2516						11.6
CAL01	Q2315275		1,1-DICHLOROETHANE	0.5890						3.9
CAL01	Q2315275		1,2-DICHLOROETHANE	0.4647						4.8
CAL01	Q2315275		1,1-DICHLOROETHENE	0.2189						2.8
CAL01	Q2315275		1,2-DICHLOROPROPANE	0.3186						4.7
CAL01	Q2315275		CIS-1,3-DICHLOROPROPENE			LIN				0.999
CAL01	Q2315275		TRANS-1,3-DICHLOROPROPENE			LIN				0.998
CAL01	Q2315275		ETHYL BENZENE	0.9791						3.4
CAL01	Q2315275		BROMOMETHANE	0.1200						11.7
CAL01	Q2315275		CHLOROMETHANE	0.5099						4.8
CAL01	Q2315275		DICHLOROMETHANE (METHYLENE CHLORIDE)			LIN				1.000
CAL01	Q2315275		1,1,2,2-TETRACHLOROETHANE	0.8089						3.1
CAL01	Q2315275		TETRACHLOROETHENE	0.7945						5.2
CAL01	Q2315275		TOLUENE	1.0227						5.2
CAL01	Q2315275		1,1,1-TRICHLOROETHANE	0.3537						7.6
CAL01	Q2315275		1,1,2-TRICHLOROETHANE	0.1954						3.4

HERITAGE ENVIRONMENTAL SERVICES

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VOLATILE PRIORITY POLLUTANTS EPA 624

O502.3

R567497 Analytical
Analyst: H WILLIAMS
Reviewer: L SMITH
Run Date: 26-May-10
Review Date: 02-Jun-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2315275		TRICHLOROETHENE	0.2479						3
CAL01	Q2315275		TRICHLOROFLUOROMETHANE	0.3428						5.8
CAL01	Q2315275		VINYL CHLORIDE	0.3373						5.4
CAL01	Q2315275		2-BUTANONE	0.0371						6.5
CAL01	Q2315275		DICHLOROETHANE-D4	0.3767						1.5
CAL01	Q2315275		TOLUENE-D8	0.9027						2.7
CAL01	Q2315275		4-BROMOFLUOROBENZENE	0.7630						2.2
CCVN	Q2317846		Analysis Date/Time: 26-May-10 05:37							
CCVN	Q2317846		ACROLEIN	200		LIN	222.			
CCVN	Q2317846		ACRYLONITRILE	200			246.			
CCVN	Q2317846		BENZENE	20			19.1			
CCVN	Q2317846		BROMOFORM	20		LIN	19.9			
CCVN	Q2317846		CARBON TETRACHLORIDE	20			20.6			
CCVN	Q2317846		CHLOROBENZENE	20			19.4			
CCVN	Q2317846		CHLOROETHANE	20			21.			
CCVN	Q2317846		2-CHLOROETHYLVINYLETHER	20		LIN	18.9			
CCVN	Q2317846		CHLOROFORM	20			19.1			
CCVN	Q2317846		DIBROMOCHLOROMETHANE	20			22.2			
CCVN	Q2317846		BROMODICHLOROMETHANE	20			21.			
CCVN	Q2317846		1,1-DICHLOROETHANE	20			19.6			
CCVN	Q2317846		1,2-DICHLOROETHANE	20			19.5			
CCVN	Q2317846		1,1-DICHLOROETHENE	20			19.1			
CCVN	Q2317846		1,2-DICHLOROPROPANE	20			19.6			
CCVN	Q2317846		CIS-1,3-DICHLOROPROPENE	20		LIN	19.2			
CCVN	Q2317846		TRANS-1,3-DICHLOROPROPENE	20		LIN	18.7			
CCVN	Q2317846		ETHYL BENZENE	20			19.9			
CCVN	Q2317846		BROMOMETHANE	20			20.6			
CCVN	Q2317846		CHLOROMETHANE	20			17.6			
CCVN	Q2317846		DICHLOROMETHANE (METHYLENE CHLORIDE)	20		LIN	19.6			
CCVN	Q2317846		1,1,2,2-TETRACHLOROETHANE	20			19.9			
CCVN	Q2317846		TETRACHLOROETHENE	20			18.9			
CCVN	Q2317846		TOLUENE	20			19.6			
CCVN	Q2317846		1,1,1-TRICHLOROETHANE	20			20.			
CCVN	Q2317846		1,1,2-TRICHLOROETHANE	20			19.5			
CCVN	Q2317846		TRICHLOROETHENE	20			19.3			
CCVN	Q2317846		TRICHLOROFLUOROMETHANE	20			20.6			
CCVN	Q2317846		VINYL CHLORIDE	20			18.6			
CCVN	Q2317846		2-BUTANONE	100			99.			
CCVN	Q2317846		DICHLOROETHANE-D4						101	
CCVN	Q2317846		TOLUENE-D8						101	
CCVN	Q2317846		4-BROMOFLUOROBENZENE						102	
BLA01	Q2317847		Analysis Date/Time: 26-May-10 06:14							
BLA01	Q2317847		ACROLEIN			BDL	20	ug/L		
BLA01	Q2317847		ACRYLONITRILE			BDL	5.0	ug/L		
BLA01	Q2317847		BENZENE			BDL	1.0	ug/L		
BLA01	Q2317847		BROMOFORM			BDL	1.0	ug/L		
BLA01	Q2317847		CARBON TETRACHLORIDE			BDL	1.0	ug/L		

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HERITAGE ENVIRONMENTAL SERVICES

60022

VOLATILE PRIORITY POLLUTANTS EPA 624

O502.3

R567497 Analyst: H WILLIAMS
Analytical Reviewer: L SMITH

Run Date: 26-May-10
Review Date: 02-Jun-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2317847		CHLOROBENZENE			BDL	1.0	ug/L		
BLA01	Q2317847		CHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q2317847		2-CHLOROETHYLVINYLETHER			BDL	1.0	ug/L		
BLA01	Q2317847		CHLOROFORM			BDL	1.0	ug/L		
BLA01	Q2317847		DIBROMOCHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q2317847		BROMODICHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q2317847		1,1-DICHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q2317847		1,2-DICHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q2317847		1,1-DICHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q2317847		1,2-DICHLOROPROPANE			BDL	1.0	ug/L		
BLA01	Q2317847		CIS-1,3-DICHLOROPROPENE			BDL	1.0	ug/L		
BLA01	Q2317847		TRANS-1,3-DICHLOROPROPENE			BDL	1.0	ug/L		
BLA01	Q2317847		ETHYL BENZENE			BDL	1.0	ug/L		
BLA01	Q2317847		BROMOMETHANE			BDL	1.0	ug/L		
BLA01	Q2317847		CHLOROMETHANE			BDL	1.0	ug/L		
BLA01	Q2317847		DICHLOROMETHANE (METHYLENE CHLORIDE)			BDL	1.0	ug/L		
BLA01	Q2317847		1,1,2,2-TETRACHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q2317847		TETRACHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q2317847		TOLUENE			BDL	1.0	ug/L		
BLA01	Q2317847		1,1,1-TRICHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q2317847		1,1,2-TRICHLOROETHANE			BDL	1.0	ug/L		
BLA01	Q2317847		TRICHLOROETHENE			BDL	1.0	ug/L		
BLA01	Q2317847		TRICHLOROFLUOROMETHANE			BDL	1.0	ug/L		
BLA01	Q2317847		VINYL CHLORIDE			BDL	1.0	ug/L		
BLA01	Q2317847		2-BUTANONE			BDL	5.0	ug/L		
BLA01	Q2317847		DICHLOROETHANE-D4						101	
BLA01	Q2317847		TOLUENE-D8						96	
BLA01	Q2317847		4-BROMOFLUOROBENZENE						105	
LCS01	Q2317848	SUPELCO	Analysis Date/Time: 26-May-10 16:55							
LCS01	Q2317848	SUPELCO	ACROLEIN	200			117	ug/L	58.5	
LCS01	Q2317848	SUPELCO	ACRYLONITRILE	200			221	ug/L	110.5	
LCS01	Q2317848	SUPELCO	BENZENE	20.0			18.8	ug/L	94	
LCS01	Q2317848	SUPELCO	BROMOFORM	20.0			19.9	ug/L	99.5	
LCS01	Q2317848	SUPELCO	CARBON TETRACHLORIDE	20.0			18.1	ug/L	90.5	
LCS01	Q2317848	SUPELCO	CHLOROBENZENE	20.0			20.7	ug/L	103.5	
LCS01	Q2317848	SUPELCO	CHLOROETHANE	20.0			23.5	ug/L	117.5	
LCS01	Q2317848	SUPELCO	2-CHLOROETHYLVINYLETHER	20.0			17	ug/L	85	
LCS01	Q2317848	SUPELCO	CHLOROFORM	20.0			18.7	ug/L	93.5	
LCS01	Q2317848	SUPELCO	DIBROMOCHLOROMETHANE	20.0			23.3	ug/L	116.5	
LCS01	Q2317848	SUPELCO	BROMODICHLOROMETHANE	20.0			19.7	ug/L	98.5	
LCS01	Q2317848	SUPELCO	1,1-DICHLOROETHANE	20.0			18.9	ug/L	94.5	
LCS01	Q2317848	SUPELCO	1,2-DICHLOROETHANE	20.0			19.2	ug/L	96	
LCS01	Q2317848	SUPELCO	1,1-DICHLOROETHENE	20.0			17.7	ug/L	88.5	
LCS01	Q2317848	SUPELCO	1,2-DICHLOROPROPANE	20.0			18.8	ug/L	94	
LCS01	Q2317848	SUPELCO	TRANS-1,3-DICHLOROPROPENE	20.0			17.6	ug/L	88	
LCS01	Q2317848	SUPELCO	ETHYL BENZENE	20.0			20.9	ug/L	104.5	
LCS01	Q2317848	SUPELCO	BROMOMETHANE	20.0			20.4	ug/L	102	

HERITAGE ENVIRONMENTAL SERVICES

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VOLATILE PRIORITY POLLUTANTS EPA 624

O502.3

R567497 Analytical
Analyst: H WILLIAMS
Reviewer: L SMITH
Run Date: 26-May-10
Review Date: 02-Jun-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LCS01	Q2317848	SUPELCO	CHLOROMETHANE	20.0			19.8	ug/L	99	
LCS01	Q2317848	SUPELCO	DICHLOROMETHANE (METHYLENE CHLORIDE)	20.0			18.8	ug/L	94	
LCS01	Q2317848	SUPELCO	1,1,2,2-TETRACHLOROETHANE	20.0			22	ug/L	110	
LCS01	Q2317848	SUPELCO	TETRACHLOROETHENE	20.0			19.5	ug/L	97.5	
LCS01	Q2317848	SUPELCO	TOLUENE	20.0			18.1	ug/L	90.5	
LCS01	Q2317848	SUPELCO	1,1,1-TRICHLOROETHANE	20.0			19.1	ug/L	95.5	
LCS01	Q2317848	SUPELCO	1,1,2-TRICHLOROETHANE	20.0			18.7	ug/L	93.5	
LCS01	Q2317848	SUPELCO	TRICHLOROETHENE	20.0			17.7	ug/L	88.5	
LCS01	Q2317848	SUPELCO	TRICHLOROFLUOROMETHANE	20.0			19	ug/L	95	
LCS01	Q2317848	SUPELCO	VINYL CHLORIDE	20.0			20.7	ug/L	103.5	
SPI01	Q2317850	A882669	Analysis Date/Time: 26-May-10 23:25							
SPI01	Q2317850	A882669	ACROLEIN	0	200		36.3	ug/L	18.2	
SPI01	Q2317850	A882669	ACRYLONITRILE	0	200		209	ug/L	104.5	
SPI01	Q2317850	A882669	BENZENE	0	20.0		20.7	ug/L	103.5	
SPI01	Q2317850	A882669	BROMOFORM	0	20.0		21.8	ug/L	109	
SPI01	Q2317850	A882669	CARBON TETRACHLORIDE	0	20.0		21.3	ug/L	106.5	
SPI01	Q2317850	A882669	CHLOROBENZENE	0	20.0		22.7	ug/L	113.5	
SPI01	Q2317850	A882669	CHLOROETHANE	0	20.0		22	ug/L	110	
SPI01	Q2317850	A882669	2-CHLOROETHYLVINYLETHER	0	20.0		19.1	ug/L	95.5	
SPI01	Q2317850	A882669	CHLOROFORM	0	20.0		19.7	ug/L	98.5	
SPI01	Q2317850	A882669	DIBROMOCHLOROMETHANE	0	20.0		25	ug/L	125	
SPI01	Q2317850	A882669	BROMODICHLOROMETHANE	0	20.0		22.6	ug/L	113	
SPI01	Q2317850	A882669	1,1-DICHLOROETHANE	0	20.0		20.7	ug/L	103.5	
SPI01	Q2317850	A882669	1,2-DICHLOROETHANE	0	20.0		20.5	ug/L	102.5	
SPI01	Q2317850	A882669	1,1-DICHLOROETHENE	0	20.0		20.3	ug/L	101.5	
SPI01	Q2317850	A882669	1,2-DICHLOROPROPANE	0	20.0		20.7	ug/L	103.5	
SPI01	Q2317850	A882669	TRANS-1,3-DICHLOROPROPENE	0	20.0		18.1	ug/L	90.5	
SPI01	Q2317850	A882669	ETHYL BENZENE	0	20.0		23.1	ug/L	115.5	
SPI01	Q2317850	A882669	BROMOMETHANE	0	20.0		21.4	ug/L	107	
SPI01	Q2317850	A882669	CHLOROMETHANE	0	20.0		18.6	ug/L	93	
SPI01	Q2317850	A882669	DICHLOROMETHANE (METHYLENE CHLORIDE)	0	20.0		20.5	ug/L	102.5	
SPI01	Q2317850	A882669	1,1,2,2-TETRACHLOROETHANE	0	20.0		22.8	ug/L	114	
SPI01	Q2317850	A882669	TETRACHLOROETHENE	0	20.0		24.5	ug/L	122.5	
SPI01	Q2317850	A882669	TOLUENE	0	20.0		20.7	ug/L	103.5	
SPI01	Q2317850	A882669	1,1,1-TRICHLOROETHANE	0	20.0		21.1	ug/L	105.5	
SPI01	Q2317850	A882669	1,1,2-TRICHLOROETHANE	0	20.0		20.4	ug/L	102	
SPI01	Q2317850	A882669	TRICHLOROETHENE	0	20.0		20.3	ug/L	101.5	
SPI01	Q2317850	A882669	TRICHLOROFLUOROMETHANE	0	20.0		20.5	ug/L	102.5	
SPI01	Q2317850	A882669	VINYL CHLORIDE	0	20.0		19.8	ug/L	99	
DPS01	Q2317851	A882669	Analysis Date/Time: 26-May-10 23:51							
DPS01	Q2317851	A882669	ACROLEIN	0	200		0	ug/L	0	200
DPS01	Q2317851	A882669	ACRYLONITRILE	0	200		10.4	ug/L	5.2	181
DPS01	Q2317851	A882669	BENZENE	0	20.0		19.6	ug/L	[illegible]	5.5
DPS01	Q2317851	A882669	BROMOFORM	0	20.0		21.8	ug/L	109	[illegible]
DPS01	Q2317851	A882669	CARBON TETRACHLORIDE	0	20.0		20.4	ug/L	102	4.2
DPS01	Q2317851	A882669	CHLOROBENZENE	0	20.0		21.6	ug/L	[illegible]	[illegible]

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VOLATILE PRIORITY POLLUTANTS EPA 624

O502.3

R567497 Analyst: H WILLIAMS
Analytical Reviewer: L SMITH

Run Date: 26-May-10
Review Date: 02-Jun-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DPS01	Q2317851	A882669	CHLOROETHANE	0	20.0		21.8	ug/L	109	1.1
DPS01	Q2317851	A882669	2-CHLOROETHYLVINYLETHER	0	20.0		19.1	ug/L	95.5	0.3
DPS01	Q2317851	A882669	CHLOROFORM	0	20.0		19.1	ug/L	95.5	3.1
DPS01	Q2317851	A882669	DIBROMOCHLOROMETHANE	0	20.0		24.9	ug/L	124.5	0.2
DPS01	Q2317851	A882669	BROMODICHLOROMETHANE	0	20.0		21.5	ug/L	107.5	5.2
DPS01	Q2317851	A882669	1,1-DICHLOROETHANE	0	20.0		19.9	ug/L	99.5	4.2
DPS01	Q2317851	A882669	1,2-DICHLOROETHANE	0	20.0		19.4	ug/L	97	5.2
DPS01	Q2317851	A882669	1,1-DICHLOROETHENE	0	20.0		19.5	ug/L	97.5	4.2
DPS01	Q2317851	A882669	1,2-DICHLOROPROPANE	0	20.0		19.7	ug/L	98.5	5
DPS01	Q2317851	A882669	TRANS-1,3-DICHLOROPROPENE	0	20.0		18.2	ug/L	91	0.6
DPS01	Q2317851	A882669	ETHYL BENZENE	0	20.0		21.9	ug/L	109.5	5.2
DPS01	Q2317851	A882669	BROMOMETHANE	0	20.0		21.1	ug/L	105.5	1.4
DPS01	Q2317851	A882669	CHLOROMETHANE	0	20.0		17.5	ug/L	87.5	6.2
DPS01	Q2317851	A882669	DICHLOROMETHANE (METHYLENE CHLORIDE)	0	20.0		19.2	ug/L	96	6.9
DPS01	Q2317851	A882669	1,1,2,2-TETRACHLOROETHANE	0	20.0		21.5	ug/L	107.5	5.8
DPS01	Q2317851	A882669	TETRACHLOROETHENE	0	20.0		23.8	ug/L	119	2.9
DPS01	Q2317851	A882669	TOLUENE	0	20.0		20.1	ug/L	100.5	2.9
DPS01	Q2317851	A882669	1,1,1-TRICHLOROETHANE	0	20.0		20.2	ug/L	101	4.2
DPS01	Q2317851	A882669	1,1,2-TRICHLOROETHANE	0	20.0		20.4	ug/L	102	0.1
DPS01	Q2317851	A882669	TRICHLOROETHENE	0	20.0		19.2	ug/L	96	5.3
DPS01	Q2317851	A882669	TRICHLOROFLUOROMETHANE	0	20.0		20.2	ug/L	101	1.6
DPS01	Q2317851	A882669	VINYL CHLORIDE	0	20.0		18.6	ug/L	93	5.9
SAMPLE	A882797		Analysis Date/Time: 27-May-10 00:42							
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							

Q2315275 Value reported for analytes calibrated by linear (LIN) or
Q2315275 quadratic (QDR) equations is r2 (Coef. of Determination).
Q2317846 Value reported for analytes calibrated by linear (LIN) or quadratic (QDR)
Q2317846 equations is concentration (UG/L).
Q2317847 Analytes present greater than 1/2 of the detection limit are reported.

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625
Prep : SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

O501.3

R567048 Analyst: C WILLHITE
Analytical Reviewer: L SMITH

Run Date: 19-May-10
Review Date: 20-May-10

Instrument: GC/MS SVOA

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI02	Q2313362	A881442	Analysis Date/Time: 20-May-10 02:45							
SPI02	Q2313362	A881442	2,4,6-TRICHLOROPHENOL	0	100		65.6	ug/L	65.6	
SPI02	Q2313362	A881442	4-CHLORO-3-METHYLPHENOL (P-CHLORO-M-CRESOL)	0	100		66.3	ug/L	66.3	
SPI02	Q2313362	A881442	2-CHLOROPHENOL	0	100		67.7	ug/L	67.7	
SPI02	Q2313362	A881442	2,4-DICHLOROPHENOL	0	100		67.9	ug/L	67.9	
SPI02	Q2313362	A881442	2,4-DIMETHYLPHENOL	0	100		46.9	ug/L	46.9	
SPI02	Q2313362	A881442	2-NITROPHENOL	0	100		70.3	ug/L	70.3	
SPI02	Q2313362	A881442	4-NITROPHENOL	0	100		22.1	ug/L	22.1	
SPI02	Q2313362	A881442	2,4-DINITROPHENOL	0	100		29.3	ug/L	29.3	
SPI02	Q2313362	A881442	4,6-DINITRO-O-CRESOL(2-METHYL-4,6-DINITROPHEN	0	100		44.3	ug/L	44.3	

HERITAGE ENVIRONMENTAL SERVICES

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SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 **O501.3**
Prep : SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

R567048 Analyst: C WILLHITE Run Date: 19-May-10
Analytical Reviewer: L SMITH Review Date: 20-May-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI02	Q2313362	A881442	PENTACHLOROPHENOL	0	100		28.9	ug/L	28.9	
SPI02	Q2313362	A881442	PHENOL	0	100		28.9	ug/L	28.9	
SPI02	Q2313362	A881442	ACENAPHTHENE	0	100		86.1	ug/L	86.1	
SPI02	Q2313362	A881442	BENZIDINE	0	100		69.5	ug/L	69.5	
SPI02	Q2313362	A881442	1,2,4-TRICHLOROBENZENE	0	100		84.7	ug/L	84.7	
SPI02	Q2313362	A881442	HEXACHLOROBENZENE	0	100		91.2	ug/L	91.2	
SPI02	Q2313362	A881442	HEXACHLOROETHANE	0	100		77.9	ug/L	77.9	
SPI02	Q2313362	A881442	BIS(2-CHLOROETHYL)ETHER	0	100		79	ug/L	79	
SPI02	Q2313362	A881442	2-CHLORONAPHTHALENE	0	100		86.9	ug/L	86.9	
SPI02	Q2313362	A881442	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	100		83.9	ug/L	83.9	
SPI02	Q2313362	A881442	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	0	100		83	ug/L	83	
SPI02	Q2313362	A881442	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	100		83.4	ug/L	83.4	
SPI02	Q2313362	A881442	3,3'-DICHLOROBENZIDINE	0	100		90.6	ug/L	90.6	
SPI02	Q2313362	A881442	2,4-DINITROTOLUENE	0	100		91.8	ug/L	91.8	
SPI02	Q2313362	A881442	2,6-DINITROTOLUENE	0	100		92.4	ug/L	92.4	
SPI02	Q2313362	A881442	FLUORANTHENE	0	100		79.3	ug/L	79.3	
SPI02	Q2313362	A881442	4-CHLOROPHENYL-PHENYLETHER	0	100		88.6	ug/L	88.6	
SPI02	Q2313362	A881442	4-BROMODIPHENYL ETHER	0	100		88.7	ug/L	88.7	
SPI02	Q2313362	A881442	BIS(2-CHLOROISOPROPYL)ETHER	0	100		82.2	ug/L	82.2	
SPI02	Q2313362	A881442	BIS(2-CHLOROETHOXY)METHANE	0	100		86.7	ug/L	86.7	
SPI02	Q2313362	A881442	HEXACHLOROBUTADIENE	0	100		80	ug/L	80	
SPI02	Q2313362	A881442	HEXACHLOROCYCLOPENTADIENE	0	100		75.7	ug/L	75.7	
SPI02	Q2313362	A881442	ISOPHORONE	0	100		86.1	ug/L	86.1	
SPI02	Q2313362	A881442	NAPHTHALENE	0	100		85	ug/L	85	
SPI02	Q2313362	A881442	NITROBENZENE	0	100		87.1	ug/L	87.1	
SPI02	Q2313362	A881442	N-NITROSODIMETHYLAMINE	0	100		54.8	ug/L	54.8	
SPI02	Q2313362	A881442	N-NITROSO-DIPROPYLAMINE	0	100		92.2	ug/L	92.2	
SPI02	Q2313362	A881442	N-NITROSODIPHENYLAMINE	0	100		86.1	ug/L	86.1	
SPI02	Q2313362	A881442	BIS(2-ETHYLHEXYL)PHTHALATE	0	100		86.1	ug/L	86.1	
SPI02	Q2313362	A881442	BENZYLBUTYLPHTHALATE (BUTYLBENZYLPHTHALATE)	0	100		85.1	ug/L	85.1	
SPI02	Q2313362	A881442	DI-N-BUTYLPHTHALATE	0	100		83.2	ug/L	83.2	
SPI02	Q2313362	A881442	DI-N-OCTYLPHTHALATE	0	100		84.7	ug/L	84.7	
SPI02	Q2313362	A881442	DIETHYLPHTHALATE	0	100		89.4	ug/L	89.4	
SPI02	Q2313362	A881442	DIMETHYLPHTHALATE	0	100		83.9	ug/L	83.9	
SPI02	Q2313362	A881442	BENZO(A)ANTHRACENE [(BENZO(A)ANTHRACENE]	0	100		87.1	ug/L	87.1	
SPI02	Q2313362	A881442	BENZO(A)PYRENE	0	100		86.9	ug/L	86.9	
SPI02	Q2313362	A881442	BENZO(B)FLUORANTHENE (3,4-BENZOFLUORANTHENE)	0	100		87.2	ug/L	87.2	
SPI02	Q2313362	A881442	BENZO(K)FLUORANTHENE	0	100		80.5	ug/L	80.5	
SPI02	Q2313362	A881442	CHRYSENE	0	100		89.9	ug/L	89.9	
SPI02	Q2313362	A881442	ACENAPHTHYLENE	0	100		86.1	ug/L	86.1	
SPI02	Q2313362	A881442	ANTHRACENE	0	100		86.4	ug/L	86.4	
SPI02	Q2313362	A881442	BENZO(G,H,I)PERYLENE	0	100		99.7	ug/L	99.7	
SPI02	Q2313362	A881442	FLUORENE	0	100		86.9	ug/L	86.9	
SPI02	Q2313362	A881442	PHENANTHRENE	0	100		86.9	ug/L	86.9	

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SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 **O501.3**
Prep : SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

R567048 Analyst: C WILLHITE Run Date: 19-May-10
Analytical Reviewer: L SMITH Review Date: 20-May-10 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SPI02	Q2313362	A881442	DIBENZ(A,H)ANTHRACENE	0	100		97.8	ug/L	97.8	
SPI02	Q2313362	A881442	INDENO(1,2,3-CD)PYRENE	0	100		98.4	ug/L	98.4	
SPI02	Q2313362	A881442	PYRENE	0	100		85.9	ug/L	85.9	
DPS02	Q2313363	A881442	Analysis Date/Time: 20-May-10 03:23							
DPS02	Q2313363	A881442	2,4,6-TRICHLOROPHENOL	0	100		76.9	ug/L	76.9	15.9
DPS02	Q2313363	A881442	4-CHLORO-3-METHYLPHENOL (P-CHLORO-M-CRESOL)	0	100		77.9	ug/L	77.9	16.1
DPS02	Q2313363	A881442	2-CHLOROPHENOL	0	100		80.1	ug/L	80.1	16.8
DPS02	Q2313363	A881442	2,4-DICHLOROPHENOL	0	100		80.3	ug/L	80.3	16.7
DPS02	Q2313363	A881442	2,4-DIMETHYLPHENOL	0	100		48.3	ug/L	48.3	2.9
DPS02	Q2313363	A881442	2-NITROPHENOL	0	100		81.7	ug/L	81.7	15
DPS02	Q2313363	A881442	4-NITROPHENOL	0	100		24.4	ug/L	24.4	9.9
DPS02	Q2313363	A881442	2,4-DINITROPHENOL	0	100		39.2	ug/L	39.2	28.9
DPS02	Q2313363	A881442	4,6-DINITRO-O-CRESOL(2-METHYL-4,6-DINITROPHEN	0	100		59.8	ug/L	59.8	29.8
DPS02	Q2313363	A881442	PENTACHLOROPHENOL	0	100		40.6	ug/L	40.6	33.7
DPS02	Q2313363	A881442	PHENOL	0	100		34	ug/L	34	16.2
DPS02	Q2313363	A881442	ACENAPHTHENE	0	100		92.9	ug/L	92.9	7.6
DPS02	Q2313363	A881442	BENZIDINE	0	100		56.1	ug/L	56.1	21.3
DPS02	Q2313363	A881442	1,2,4-TRICHLOROBENZENE	0	100		91.6	ug/L	91.6	7.8
DPS02	Q2313363	A881442	HEXACHLOROBENZENE	0	100		101	ug/L	101	10.2
DPS02	Q2313363	A881442	HEXACHLOROETHANE	0	100		84.6	ug/L	84.6	8.2
DPS02	Q2313363	A881442	BIS(2-CHLOROETHYL)ETHER	0	100		85.6	ug/L	85.6	8
DPS02	Q2313363	A881442	2-CHLORONAPHTHALENE	0	100		93.4	ug/L	93.4	7.2
DPS02	Q2313363	A881442	1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	0	100		90.7	ug/L	90.7	7.8
DPS02	Q2313363	A881442	1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	0	100		90.6	ug/L	90.6	8.8
DPS02	Q2313363	A881442	1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	0	100		90.3	ug/L	90.3	7.9
DPS02	Q2313363	A881442	3,3'-DICHLOROBENZIDINE	0	100		91.3	ug/L	91.3	0.8
DPS02	Q2313363	A881442	2,4-DINITROTOLUENE	0	100		98.5	ug/L	98.5	7
DPS02	Q2313363	A881442	2,6-DINITROTOLUENE	0	100		99.2	ug/L	99.2	7.1
DPS02	Q2313363	A881442	FLUORANTHENE	0	100		82.9	ug/L	82.9	4.4
DPS02	Q2313363	A881442	4-CHLOROPHENYL-PHENYLETHER	0	100		94.8	ug/L	94.8	6.8
DPS02	Q2313363	A881442	4-BROMODIPHENYL ETHER	0	100		98.7	ug/L	98.7	10.7
DPS02	Q2313363	A881442	BIS(2-CHLOROISOPROPYL)ETHER	0	100		87.7	ug/L	87.7	6.5
DPS02	Q2313363	A881442	BIS(2-CHLOROETHOXY)METHANE	0	100		93.5	ug/L	93.5	7.5
DPS02	Q2313363	A881442	HEXACHLOROBUTADIENE	0	100		85.7	ug/L	85.7	6.9
DPS02	Q2313363	A881442	HEXACHLOROCYCLOPENTADIENE	0	100		81.2	ug/L	81.2	7
DPS02	Q2313363	A881442	ISOPHORONE	0	100		93.3	ug/L	93.3	8
DPS02	Q2313363	A881442	NAPHTHALENE	0	100		91.4	ug/L	91.4	7.3
DPS02	Q2313363	A881442	NITROBENZENE	0	100		94.3	ug/L	94.3	7.9
DPS02	Q2313363	A881442	N-NITROSODIMETHYLAMINE	0	100		57.2	ug/L	57.2	4.3
DPS02	Q2313363	A881442	N-NITROSO-DIPROPYLAMINE	0	100		101	ug/L	101.1	9.2
DPS02	Q2313363	A881442	N-NITROSODIPHENYLAMINE	0	100		95.5	ug/L	95.5	10.4
DPS02	Q2313363	A881442	BIS(2-ETHYLHEXYL)PHTHALATE	0	100		92.2	ug/L	92.2	6.8
DPS02	Q2313363	A881442	BENZYLBUTYLPHTHALATE (BUTYLBENZYLPHTHALATE)	0	100		92.1	ug/L	92.1	7.9
DPS02	Q2313363	A881442	DI-N-BUTYLPHTHALATE	0	100		86.9	ug/L	86.9	4.4

HERITAGE ENVIRONMENTAL SERVICES

60022

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 **O501.3**
Prep : SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

R567048 Analytical — Analyst: C WILLHITE — Reviewer: L SMITH — Run Date: 19-May-10 — Review Date: 20-May-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DPS02	Q2313363	A881442	DI-N-OCTYLPHTHALATE	0	100		90.6	ug/L	90.6	6.7
DPS02	Q2313363	A881442	DIETHYLPHTHALATE	0	100		93.9	ug/L	93.9	4.9
DPS02	Q2313363	A881442	DIMETHYLPHTHALATE	0	100		88.7	ug/L	88.7	5.6
DPS02	Q2313363	A881442	BENZO(A)ANTHRACENE [(BENZO(A)ANTHRACENE]	0	100		94.1	ug/L	94.1	7.7
DPS02	Q2313363	A881442	BENZO(A)PYRENE	0	100		93.2	ug/L	93.2	7
DPS02	Q2313363	A881442	BENZO(B)FLUORANTHENE (3,4-BENZOFLUORANTHENE)	0	100		90.2	ug/L	90.2	3.4
DPS02	Q2313363	A881442	BENZO(K)FLUORANTHENE	0	100		92	ug/L	92	13.3
DPS02	Q2313363	A881442	CHRYSENE	0	100		96.3	ug/L	96.3	6.9
DPS02	Q2313363	A881442	ACENAPHTHYLENE	0	100		92.5	ug/L	92.5	7.2
DPS02	Q2313363	A881442	ANTHRACENE	0	100		94	ug/L	94	8.4
DPS02	Q2313363	A881442	BENZO(G,H,I)PERYLENE	0	100		106	ug/L	105.9	6
DPS02	Q2313363	A881442	FLUORENE	0	100		93.8	ug/L	93.8	7.6
DPS02	Q2313363	A881442	PHENANTHRENE	0	100		93.7	ug/L	93.7	7.5
DPS02	Q2313363	A881442	DIBENZ(A,H)ANTHRACENE	0	100		103	ug/L	103.3	5.5
DPS02	Q2313363	A881442	INDENO(1,2,3-CD)PYRENE	0	100		104	ug/L	104.1	5.6
DPS02	Q2313363	A881442	PYRENE	0	100		97.6	ug/L	97.6	12.8

R567485 Prep — Analyst: C WILLHITE — Reviewer: L SMITH — Run Date: 31-May-10 — Review Date: 01-Jun-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
SAMPLE	A882797	Rep: 0	Analytical Run: R567717							
SAMPLE	A882797	Rep: 1	Analytical Run: R567748							
SPI02	Q2313362	A881442	Analytical Run: R567048							
DPS02	Q2313363	A881442	Analytical Run: R567048							

R567717 Analytical — Analyst: C WILLHITE — Reviewer: L SMITH — Run Date: 03-Jun-10 — Review Date: 07-Jun-10 — Instrument: GC/MS SVOA

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2318112		Analysis Date/Time: 27-May-10 05:37							
CAL01	Q2318112		2,4,6-TRICHLOROPHENOL	0.3543						5.4
CAL01	Q2318112		4-CHLORO-3-METHYLPHENOL (P-CHLORO-M-CRESOL)	0.2457						2.5
CAL01	Q2318112		2-CHLOROPHENOL	1.2971						7.1
CAL01	Q2318112		2,4-DICHLOROPHENOL	0.2709						2.8
CAL01	Q2318112		2,4-DIMETHYLPHENOL	0.3130						4.3
CAL01	Q2318112		2-NITROPHENOL	0.1964						3.1
CAL01	Q2318112		4-NITROPHENOL	0.0974						7.5
CAL01	Q2318112		2,4-DINITROPHENOL			LIN				0.999
CAL01	Q2318112		4,6-DINITRO-O-CRESOL(2-METHYL-4,6-DINITROPHEN	0.1450						5.2
CAL01	Q2318112		PENTACHLOROPHENOL			LIN				0.997
CAL01	Q2318112		PHENOL	1.5344						9.9
CAL01	Q2318112		ACENAPHTHENE	1.0003						2.9
CAL01	Q2318112		BENZIDINE	0.3417						6.6
CAL01	Q2318112		1,2,4-TRICHLOROBENZENE	0.3142						1.8
CAL01	Q2318112		HEXACHLOROBENZENE	0.2274						1.2

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60022

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 O501.3
Prep : SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

R567717 Analyst: C WILLHITE
Analytical Reviewer: L SMITH
Run Date: 03-Jun-10
Review Date: 07-Jun-10
Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2318112		HEXACHLOROETHANE	0.5808						2.8
CAL01	Q2318112		BIS(2-CHLOROETHYL)ETHER	1.4170						4.4
CAL01	Q2318112		2-CHLORONAPHTHALENE	1.0696						2.4
CAL01	Q2318112		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	1.4633						3.7
CAL01	Q2318112		1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	1.5400						2.2
CAL01	Q2318112		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	1.5428						2.7
CAL01	Q2318112		3,3'-DICHLOROBENZIDINE	0.2946						6.4
CAL01	Q2318112		2,4-DINITROTOLUENE	0.3412						5.7
CAL01	Q2318112		2,6-DINITROTOLUENE	0.2805						3.3
CAL01	Q2318112		FLUORANTHENE	1.0384						6
CAL01	Q2318112		4-CHLOROPHENYL-PHENYLETHER	0.5632						2
CAL01	Q2318112		4-BROMODIPHENYL ETHER	0.2322						1.1
CAL01	Q2318112		BIS(2-CHLOROISOPROPYL)ETHER	1.7310						6.6
CAL01	Q2318112		BIS(2-CHLOROETHOXY)METHANE	0.3748						2.8
CAL01	Q2318112		HEXACHLOROBUTADIENE	0.1863						1
CAL01	Q2318112		HEXACHLOROCYCLOPENTADIENE	0.3685						5.3
CAL01	Q2318112		ISOPHORONE	0.5730						3.1
CAL01	Q2318112		NAPHTHALENE	0.9448						4.6
CAL01	Q2318112		NITROBENZENE	0.4074						11.9
CAL01	Q2318112		N-NITROSODIMETHYLAMINE	0.6038						0.7
CAL01	Q2318112		N-NITROSO-DIPROPYLAMINE	0.8505						8.2
CAL01	Q2318112		N-NITROSODIPHENYLAMINE	0.5598						6.2
CAL01	Q2318112		BIS(2-ETHYLHEXYL)PHTHALATE	0.7568						4.5
CAL01	Q2318112		BENZYLBUTYLPHTHALATE (BUTYLBENZYLPHTHALATE)	0.5636						3.5
CAL01	Q2318112		DI-N-BUTYLPHTHALATE	1.1464						7
CAL01	Q2318112		DI-N-OCTYLPHTHALATE	1.5820						4.4
CAL01	Q2318112		DIETHYLPHTHALATE	1.0525						3.5
CAL01	Q2318112		DIMETHYLPHTHALATE	1.1472						2.4
CAL01	Q2318112		BENZO(A)ANTHRACENE [(BENZO(A)ANTHRACENE]	1.0633						2.3
CAL01	Q2318112		BENZO(A)PYRENE	0.9323						2.7
CAL01	Q2318112		BENZO(B)FLUORANTHENE (3,4-BENZOFLUORANTHENE)	1.2274						7.2
CAL01	Q2318112		BENZO(K)FLUORANTHENE	1.1176						6.1
CAL01	Q2318112		CHRYSENE	1.0916						1.9
CAL01	Q2318112		ACENAPHTHYLENE	1.6536						4.2
CAL01	Q2318112		ANTHRACENE	1.0694						4.5
CAL01	Q2318112		BENZO(G,H,I)PERYLENE	0.6496						10.1
CAL01	Q2318112		FLUORENE	1.1408						2.2
CAL01	Q2318112		PHENANTHRENE	1.0848						2
CAL01	Q2318112		DIBENZ(A,H)ANTHRACENE	0.7110						7.5
CAL01	Q2318112		INDENO(1,2,3-CD)PYRENE	0.8342						8.7
CAL01	Q2318112		PYRENE	1.4416						4.3
CAL01	Q2318112		2-METHYLPHENOL (O-CRESOL)	1.1472						8.1
CAL01	Q2318112		4-METHYLPHENOL (P-CRESOL)	1.1507						8.1
CAL01	Q2318112		2-FLUOROPHENOL	1.3042						2.6

HERITAGE ENVIRONMENTAL SERVICES

60022

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 O501.3
Prep : SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

R567717 Analyst: C WILLHITE Run Date: 03-Jun-10
Analytical Reviewer: L SMITH Review Date: 07-Jun-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2318112		PHENOL-D5	1.6709						9.1
CAL01	Q2318112		NITROBENZENE-D5	0.3872						3.7
CAL01	Q2318112		2-FLUOROBIPHENYL	1.4064						3.7
CAL01	Q2318112		2,4,6-TRIBROMOPHENOL	0.1014						7.9
CAL01	Q2318112		TERPHENYL-D14	1.0367						4.8
CCVD	Q2319887		Analysis Date/Time: 03-Jun-10 12:13							
CCVD	Q2319887		2,4,6-TRICHLOROPHENOL	0.3543			0.3670			3.6
CCVD	Q2319887		4-CHLORO-3-METHYLPHENOL (P-CHLORO-M-CRESOL)	0.2457			0.2491			1.4
CCVD	Q2319887		2-CHLOROPHENOL	1.2971			1.3591			4.8
CCVD	Q2319887		2,4-DICHLOROPHENOL	0.2709			0.2898			7
CCVD	Q2319887		2,4-DIMETHYLPHENOL	0.3130			0.3315			5.9
CCVD	Q2319887		2-NITROPHENOL	0.1964			0.2028			3.3
CCVD	Q2319887		4-NITROPHENOL	0.0974			0.0956			1.8
CCVD	Q2319887		2,4-DINITROPHENOL	50.000		LIN	49.006			2
CCVD	Q2319887		4,6-DINITRO-O-CRESOL(2-METHYL-4,6-DINITROPHEN	0.1450			0.1443			0.5
CCVD	Q2319887		PENTACHLOROPHENOL	50.000		LIN	49.240			1.5
CCVD	Q2319887		PHENOL	1.5344			1.6595			8.2
CCVD	Q2319887		ACENAPHTHENE	1.0003			0.9946			0.6
CCVD	Q2319887		BENZIDINE	0.3417			0.3066			10.3
CCVD	Q2319887		1,2,4-TRICHLOROBENZENE	0.3142			0.3117			0.8
CCVD	Q2319887		HEXACHLOROBENZENE	0.2274			0.2207			2.9
CCVD	Q2319887		HEXACHLOROETHANE	0.5808			0.5878			1.2
CCVD	Q2319887		BIS(2-CHLOROETHYL)ETHER	1.4170			1.3784			2.7
CCVD	Q2319887		2-CHLORONAPHTHALENE	1.0696			1.0701			0
CCVD	Q2319887		1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	1.4633			1.4681			0.3
CCVD	Q2319887		1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	1.5400			1.5289			0.7
CCVD	Q2319887		1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	1.5428			1.5483			0.4
CCVD	Q2319887		3,3'-DICHLOROBENZIDINE	0.2946			0.3213			9.1
CCVD	Q2319887		2,4-DINITROTOLUENE	0.3412			0.3423			0.3
CCVD	Q2319887		2,6-DINITROTOLUENE	0.2805			0.2742			2.2
CCVD	Q2319887		FLUORANTHENE	1.0384			1.0393			0.1
CCVD	Q2319887		4-CHLOROPHENYL-PHENYLETHER	0.5632			0.5660			0.5
CCVD	Q2319887		4-BROMODIPHENYL ETHER	0.2322			0.2304			0.8
CCVD	Q2319887		BIS(2-CHLOROISOPROPYL)ETHER	1.7310			1.7762			2.6
CCVD	Q2319887		BIS(2-CHLOROETHOXY)METHANE	0.3748			0.3906			4.2
CCVD	Q2319887		HEXACHLOROBUTADIENE	0.1863			0.1855			0.4
CCVD	Q2319887		HEXACHLOROCYCLOPENTADIENE	0.3685			0.3289			10.7
CCVD	Q2319887		ISOPHORONE	0.5730			0.5956			3.9
CCVD	Q2319887		NAPHTHALENE	0.9448			0.9468			0.2
CCVD	Q2319887		NITROBENZENE	0.4074			0.3597			11.7
CCVD	Q2319887		N-NITROSODIMETHYLAMINE	0.6038			0.6281			4
CCVD	Q2319887		N-NITROSO-DIPROPYLAMINE	0.8505			0.9096			6.9
CCVD	Q2319887		N-NITROSODIPHENYLAMINE	0.5598			0.5827			4.1
CCVD	Q2319887		BIS(2-ETHYLHEXYL)PHTHALATE	0.7568			0.7792			3
CCVD	Q2319887		BENZYLBUTYLPHTHALATE	0.5636			0.5765			2.3

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SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 **O501.3**
Prep : SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

R567717 Analyst: C WILLHITE Run Date: 03-Jun-10
Analytical Reviewer: L SMITH Review Date: 07-Jun-10 Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
			(BUTYLBENZYLPHTHALATE)							
CCVD	Q2319887		DI-N-BUTYLPHTHALATE	1.1464			1.1993			4.6
CCVD	Q2319887		DI-N-OCTYLPHTHALATE	1.5820			1.4774			6.6
CCVD	Q2319887		DIETHYLPHTHALATE	1.0525			1.0975			4.3
CCVD	Q2319887		DIMETHYLPHTHALATE	1.1472			1.1434			0.3
CCVD	Q2319887		BENZO(A)ANTHRACENE [(BENZO(A)ANTHRACENE]	1.0633			1.0317			3
CCVD	Q2319887		BENZO(A)PYRENE	0.9323			0.9159			1.8
CCVD	Q2319887		BENZO(B)FLUORANTHENE (3,4-BENZOFLUORANTHENE)	1.2274			1.1662			5
CCVD	Q2319887		BENZO(K)FLUORANTHENE	1.1176			1.0371			7.2
CCVD	Q2319887		CHRYSENE	1.0916			1.0733			1.7
CCVD	Q2319887		ACENAPHTHYLENE	1.6536			1.6651			0.7
CCVD	Q2319887		ANTHRACENE	1.0694			1.0876			1.7
CCVD	Q2319887		BENZO(G,H,I)PERYLENE	0.6496			0.6393			1.6
CCVD	Q2319887		FLUORENE	1.1408			1.1503			0.8
CCVD	Q2319887		PHENANTHRENE	1.0848			1.0935			0.8
CCVD	Q2319887		DIBENZ(A,H)ANTHRACENE	0.7110			0.6909			2.8
CCVD	Q2319887		INDENO(1,2,3-CD)PYRENE	0.8342			0.8039			3.6
CCVD	Q2319887		PYRENE	1.4416			1.4715			2.1
CCVD	Q2319887		2-METHYLPHENOL (O-CRESOL)	1.1472			1.2156			6
CCVD	Q2319887		4-METHYLPHENOL (P-CRESOL)	1.1507			1.2497			8.6
CCVD	Q2319887		2-FLUOROPHENOL	1.3042			1.3651			4.7
CCVD	Q2319887		PHENOL-D5	1.6709			1.6722			0.1
CCVD	Q2319887		NITROBENZENE-D5	0.3872			0.4068			5.1
CCVD	Q2319887		2-FLUOROBIPHENYL	1.4064			1.4246			1.3
CCVD	Q2319887		2,4,6-TRIBROMOPHENOL	0.1014			0.1034			2
CCVD	Q2319887		TERPHENYL-D14	1.0367			1.0513			1.4
SAMPLE	A882797		Analysis Date/Time: 04-Jun-10 01:04							
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							

Q2318112 Value reported for analytes calibrated by linear (LIN) or
Q2318112 quadratic (QDR) equations is r2 (Coef. of Determination).
Q2319887 Value reported for analytes calibrated by linear (LIN) or quadratic (QDR)
Q2319887 equations is concentration (ug/ml).

R567748 Analyst: C WILLHITE Run Date: 04-Jun-10 Instrument: GC/MS SVOA
Analytical Reviewer: L SMITH Review Date: 06-Jun-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CAL01	Q2318112		Analysis Date/Time: 27-May-10 05:37							
CAL01	Q2318112		PHENOL	1.5344						9.9
CAL01	Q2318112		4-METHYLPHENOL (P-CRESOL)	1.1507						8.1
CAL01	Q2318112		2-FLUOROPHENOL	1.3042						2.6
CAL01	Q2318112		PHENOL-D5	1.6709						9.1
CAL01	Q2318112		NITROBENZENE-D5	0.3872						3.7
CAL01	Q2318112		2-FLUOROBIPHENYL	1.4064						3.7
CAL01	Q2318112		2,4,6-TRIBROMOPHENOL	0.1014						7.9
CAL01	Q2318112		TERPHENYL-D14	1.0367						4.8
CCVD	Q2320109		Analysis Date/Time: 04-Jun-10 15:50							

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SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 **O501.3**
Prep : SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

R567748 Analyst: C WILLHITE
Analytical Reviewer: L SMITH
Run Date: 04-Jun-10
Review Date: 06-Jun-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CCVD	Q2320109		PHENOL	1.5344			1.6859			9.9
CCVD	Q2320109		4-METHYLPHENOL (P-CRESOL)	1.1507			1.3058			13.5
CCVD	Q2320109		2-FLUOROPHENOL	1.3042			1.3508			3.6
CCVD	Q2320109		PHENOL-D5	1.6709			1.8112			8.4
CCVD	Q2320109		NITROBENZENE-D5	0.3872			0.3933			1.6
CCVD	Q2320109		2-FLUOROBIPHENYL	1.4064			1.3407			4.7
CCVD	Q2320109		2,4,6-TRIBROMOPHENOL	0.1014			0.0969			4.4
CCVD	Q2320109		TERPHENYL-D14	1.0367			1.0113			2.5
SAMPLE	A882797		Analysis Date/Time: 04-Jun-10 19:02							
SAMPLE	A882797		See Certificate of Analysis, Rep: 1							

Q2318112 Value reported for analytes calibrated by linear (LIN) or
Q2318112 quadratic (QDR) equations is r2 (Coef. of Determination).
Q2320109 Value reported for analytes calibrated by linear (LIN) or quadratic (QDR)
Q2320109 equations is concentration (ug/ml).

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. **G203.8**
Prep : AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

R568097 Analyst: J CROFFIE
Prep Reviewer: P SPENCE
Run Date: 10-Jun-10 Instrument: PREP
Review Date: 14-Jun-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2323512		Analytical Run: R568099							
LFB02	Q2323513		Analytical Run: R568099							
SAMPLE	A882797	Rep: 0	Analytical Run: R568099							
SPI02	Q2323515	A883661	Analytical Run: R568099							
DPS02	Q2323516	A883661	Analytical Run: R568099							
DUP02	Q2323517	A883871	Analytical Run: R568099							

Q2323515 1:5 Dilution.
Q2323516 1:5 Dilution.

R568099 Analyst: T DRIGGERS
Analytical Reviewer: P SPENCE
Run Date: 11-Jun-10
Review Date: 14-Jun-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
CDL01	Q2323521		NITROGEN, AMMONIA	0.100			0.088	mg/L	88.0	
ICV01	Q2323522		NITROGEN, AMMONIA	3.00			3.11	mg/L	103.7	
BLA02	Q2323512		NITROGEN, AMMONIA			BDL	0.10	mg/L		
LFB02	Q2323513		NITROGEN, AMMONIA	5.00			5.75	mg/L	115.0	
CCVL	Q2323523		NITROGEN, AMMONIA	1.00			0.910	mg/L	91.0	
BLA01	Q2323524		NITROGEN, AMMONIA			BDL	0.10	mg/L		
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
SPI02	Q2323515	A883661	NITROGEN, AMMONIA	9.13	4		12.7	mg/L	89.2	
DPS02	Q2323516	A883661	NITROGEN, AMMONIA	9.13	4		12.2	mg/L	76.8	14.9
BLA01	Q2323526		NITROGEN, AMMONIA			BDL	0.10	mg/L		
DUP02	Q2323517	A883871	NITROGEN, AMMONIA	0.177			0.170	mg/L		4.0
CCVH	Q2323527		NITROGEN, AMMONIA	1.00			0.948	mg/L	94.8	

Q2323515 1:5 Dilution.
Q2323516 1:5 Dilution.

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MSD 024288

CHROMIUM ICP EPA 200.7 REV. 4.4 — M410.3
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R567475 Prep — Analyst: C VAUGHN — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317777	NA	Analytical Run: R567550							
LCS	Q2317778	SPEX	Analytical Run: R567550							
SAMPLE	A882797	Rep: 0	Analytical Run: R567550							
BLA02	Q2317948	NA	Analytical Run: R567615							
LCS	Q2317949	INORGANIC	Analytical Run: R567615							
DUP02	Q2317950	A882705	Analytical Run: R567615							
SPI02	Q2317951	A882705	Analytical Run: R567615							

R567550 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2318373	PERKIN ELE	CHROMIUM	0.0100			0.0104	mg/L	104.0	
ICV01	Q2318372	PERKIN ELM	CHROMIUM	1			1.02	mg/L	102.0	
LCCV	Q2318375	INORGANIC	CHROMIUM	0.0100			0.0102	mg/L	102.0	
CDL01	Q2318357	PERKIN ELM	CHROMIUM	0.020			0.0208	mg/L	104.0	
ICS-AB	Q2318334	PERKIN ELM	CHROMIUM	0.500			0.509	mg/L	101.8	
BLA02	Q2317777	NA	CHROMIUM			<	0.000800	mg/L		
LCS	Q2317778	SPEX	CHROMIUM	0.2			0.200	mg/L	100.0	
SER01	Q2318489	A882705	CHROMIUM	0.00217		CNA	0.00303	mg/L		
CCV	Q2318480	INORGANIC	CHROMIUM	5.00			4.94	mg/L	98.8	
BLA01	Q2318470	NA	CHROMIUM			<	0.000800	mg/L		
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
CCV	Q2318481	INORGANIC	CHROMIUM	5.00			4.95	mg/L	99.0	
BLA01	Q2318471	NA	CHROMIUM			<	0.000800	mg/L		
CDL01	Q2318487	INORGANIC	CHROMIUM	0.0100			0.0101	mg/L	101.0	
ICS-AB	Q2318475	PERKIN ELM	CHROMIUM	0.500			0.506	mg/L	101.2	

Q2318489 1:5 Dilution.

R567615 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 02-Jun-10 — Review Date: 03-Jun-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317948	NA	CHROMIUM			<	0.000800	mg/L		
LCS	Q2317949	INORGANIC	CHROMIUM	0.2			0.209	mg/L	104.5	
DUP02	Q2317950	A882705	CHROMIUM	0		BDL		mg/L		
SPI02	Q2317951	A882705	CHROMIUM	0	0.2		0.210	mg/L	105.0	

ZINC ICP EPA 200.7 REV. 4.4 — M439.3
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R567475 Prep — Analyst: C VAUGHN — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317777	NA	Analytical Run: R567550							
LCS	Q2317778	SPEX	Analytical Run: R567550							

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ZINC ICP EPA 200.7 REV. 4.4
Prep : FAA OR ICP ACID DIGESTION EPA 200.0 **M439.3**

R567475 Prep — Analyst: C VAUGHN, Reviewer: S ENDERSEN — Run Date: 01-Jun-10, Review Date: 02-Jun-10

Continued

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
DUP02	Q2317779	A882705	Analytical Run: R567550							
SPI02	Q2317780	A882705	Analytical Run: R567550							
SAMPLE	A882797	Rep: 0	Analytical Run: R567550							

R567550 Analytical — Analyst: J KRAMER, Reviewer: S ENDERSEN — Run Date: 01-Jun-10, Review Date: 02-Jun-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2318373	PERKIN ELE	ZINC	0.0200			0.0184	mg/L	92.0	
ICV01	Q2318372	PERKIN ELM	ZINC	1			0.999	mg/L	99.9	
LCCV	Q2318375	INORGANIC	ZINC	0.0200			0.0177	mg/L	88.5	
CDL01	Q2318357	PERKIN ELM	ZINC	0.040			0.0380	mg/L	95.0	
ICS-AB	Q2318334	PERKIN ELM	ZINC	1.00			0.945	mg/L	94.5	
BLA02	Q2317777	NA	ZINC			<	0.00800	mg/L		
LCS	Q2317778	SPEX	ZINC	0.5			0.468	mg/L	93.6	
SER01	Q2318489	A882705	ZINC	0.0222		CNA	0.0217	mg/L		
DUP02	Q2317779	A882705	ZINC	0.0222		CNA	0.0245	mg/L		
SPI02	Q2317780	A882705	ZINC	0.0222	0.500		0.494	mg/L	94.4	
CCV	Q2318480	INORGANIC	ZINC	5.00			4.64	mg/L	92.8	
BLA01	Q2318470	NA	ZINC			<	0.00800	mg/L		
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
CCV	Q2318481	INORGANIC	ZINC	5.00			4.69	mg/L	93.8	
BLA01	Q2318471	NA	ZINC			<	0.00800	mg/L		
CDL01	Q2318487	INORGANIC	ZINC	0.0200			0.0191	mg/L	95.5	
ICS-AB	Q2318475	PERKIN ELM	ZINC	1.00			0.942	mg/L	94.2	
Q2318489	1:5 Dilution.									

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED **G801.4**

R567509 Analytical — Analyst: S BOXUM, Reviewer: P SPENCE — Run Date: 26-May-10, Review Date: 03-Jun-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2318063		BIOCHEMICAL OXYGEN DEMAND			BDL	2	mg/L		
DUP01	Q2318064	A882764	BIOCHEMICAL OXYGEN DEMAND	73			69	mg/L		5.6
CCV	Q2318065		BIOCHEMICAL OXYGEN DEMAND	198			196	mg/L	99.0	
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
BLA01	Q2318066		BIOCHEMICAL OXYGEN DEMAND			BDL	2	mg/L		
CCV	Q2318067		BIOCHEMICAL OXYGEN DEMAND	198			225	mg/L	113.6	

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NICKEL ICP EPA 200.7 REV. 4.4 — M422.3
Prep : FAA OR ICP ACID DIGESTION EPA 200.0

R567475 Prep — Analyst: C VAUGHN — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: PREP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA02	Q2317777	NA	Analytical Run: R567550							
LCS	Q2317778	SPEX	Analytical Run: R567550							
DUP02	Q2317779	A882705	Analytical Run: R567550							
SPI02	Q2317780	A882705	Analytical Run: R567550							
SAMPLE	A882797	Rep: 0	Analytical Run: R567550							

R567550 Analytical — Analyst: J KRAMER — Reviewer: S ENDERSEN — Run Date: 01-Jun-10 — Review Date: 02-Jun-10 — Instrument: ICP

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
LICV01	Q2318373	PERKIN ELE	NICKEL	0.005			0.00475	mg/L	95.0	
ICV01	Q2318372	PERKIN ELM	NICKEL	1			1.01	mg/L	101.0	
LCCV	Q2318375	INORGANIC	NICKEL	0.005			0.00448	mg/L	89.6	
CDL01	Q2318357	PERKIN ELM	NICKEL	0.080			0.0821	mg/L	102.6	
ICS-AB	Q2318334	PERKIN ELM	NICKEL	1.00			0.961	mg/L	96.1	
BLA02	Q2317777	NA	NICKEL			<	0.00200	mg/L		
LCS	Q2317778	SPEX	NICKEL	0.5			0.487	mg/L	97.4	
SER01	Q2318489	A882705	NICKEL	0		BDL		mg/L		
DUP02	Q2317779	A882705	NICKEL	0		BDL		mg/L		
SPI02	Q2317780	A882705	NICKEL	0	0.500		0.491	mg/L	98.2	
CCV	Q2318480	INORGANIC	NICKEL	5.00			4.84	mg/L	96.8	
BLA01	Q2318470	NA	NICKEL			<	0.00200	mg/L		
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
CCV	Q2318481	INORGANIC	NICKEL	5.00			4.85	mg/L	97.0	
BLA01	Q2318471	NA	NICKEL			<	0.00200	mg/L		
CDL01	Q2318487	INORGANIC	NICKEL	0.005			0.00437	mg/L	87.4	
ICS-AB	Q2318475	PERKIN ELM	NICKEL	1.00			0.953	mg/L	95.3	

Q2318489 1:5 Dilution.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) — G301.1

R567807 Analytical — Analyst: J CROFFIE — Reviewer: P SPENCE — Run Date: 03-Jun-10 — Review Date: 07-Jun-10

QC Type	Lab ID	Source	Parameter	True / Sample	Spike Value	RQL	Observed	Units	Rec	RPD
BLA01	Q2320904		CHEMICAL OXYGEN DEMAND			BDL	10	mg/L		
ICV01	Q2320905		CHEMICAL OXYGEN DEMAND	200			191	mg/L	95.5	
CCV	Q2320906		CHEMICAL OXYGEN DEMAND	500			490	mg/L	98.0	
SAMPLE	A882797		See Certificate of Analysis, Rep: 0							
SPI01	Q2320907	A883027	CHEMICAL OXYGEN DEMAND	1690	500		2170	mg/L	96.0	
DPS01	Q2320908	A883027	CHEMICAL OXYGEN DEMAND	1690	500		2260	mg/L	114.0	17.1
CCV	Q2320909		CHEMICAL OXYGEN DEMAND	500			488	mg/L	97.6	
BLA01	Q2320910		CHEMICAL OXYGEN DEMAND			BDL	10	mg/L		

Q2320907 1:5 Dilution.
Q2320908 1:5 Dilution.

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RQL	Result Qualifier Definition
<	Less Than
BDL	Below Detection Limit
CNA	RPD Calculation Not Applicable < DL
LIN	Linear Regression Used

QC Type	Definition
SPI02	PREPPED MATRIX SPIKE
DPS01	DUPLICATE MATRIX SPIKE
DLFB01	DUPLICATE LABORATORY FORTIFIED BLANK
DUP01	DUPLICATE SAMPLE ANALYSIS
ICS-AB	INTERFERENCE CHECK SAMPLE AB
SER01	ICP SERIAL DILUTION
BLA01	CALIBRATION (INSTRUMENT) BLANK
BLA02	PREPPED (CALIBRATION) BLANK OR METHOD BLANK
LCS	LABORATORY CONTROL SAMPLE PREPPED
CCVD	CONTINUING CALIBRATION VERIFICATION (USING %D)
CAL01	INITIAL CALIBRATION
SPI01	MATRIX SPIKE
LFB01	LABORATORY FORTIFIED BLANK
ICV01	INITIAL CALIBRATION VERIFICATION DIFFERENT SOURCE
CDL01	DETECTION LIMIT STANDARD
CCV	CONTINUING CALIBRATION VERIFICATION
CCVN	CONTINUING CALIBRATION VERIFICATION (NO CALCULATION)
DUP02	PREPPED DUPLICATE SAMPLE ANALYSIS
LFB02	LABORATORY FORTIFIED BLANK PREPPED
LICV01	LOW LEVEL CALIBRATION VERIFICATION DIFFERENT SOURCE
LCS01	LABORATORY CONTROL SAMPLE
DPS02	PREPPED DUPLICATE MATRIX SPIKE
CCVL	LOW CONTINUING CALIBRATION VERIFICATION
CCVH	HIGH CONTINUING CALIBRATION VERIFICATION
LCCV	LOW LEVEL CONTINUING CALIBRATION VERIFICATION
DLCS	DUPLICATE LABORATORY CONTROL STANDARD PREPPED

Approved By : CHRISTINE SARKAN

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Bridgeton Landfill

Lot #: F0E250568

Ward Herst

Herst & Associates Inc
4630 South Hwy 94
North Outer Road
St Charles, MO 63304

TESTAMERICA LABORATORIES, INC.

Kay Clay
Project Manager

June 29, 2010

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13715 Rider Trail North Earth City, MO 63045 **tel** 314.298.8566 **fax** 314.298.8757 **www.testamericainc.com**

Analytical Data Package Prepared For

TESTAMERICA ST. LOUIS

BRIDGETON LANDFILL

Radiochemical Analysis By

TestAmerica

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code:

Data Package Contains 22 *Pages*

Report No.: 44167

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
F0E250568		OUTFALL 008	F0E250568-1	L12WF1AC	9L12WF10	0148316
		OUTFALL 008	F0E250568-1	L12WF1AD	9L12WF10	0148317
		OUTFALL 008	F0E250568-1	L12WF2AA	9L12WF20	0148319
		OUTFALL 008	F0E250568-1	L12WF1AF	9L12WF10	0148320
		OUTFALL 008	F0E250568-1	L12WF1AG	9L12WF10	0148323
		OUTFALL 008	F0E250568-1	L12WF1AE	9L12WF10	0148325

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

TestAmerica Laboratories, Inc.

June 29, 2010

TestAmerica –St. Louis
13715 Rider Trail North
Earth City, MO 63045

Attention: Kay Clay

Date Received in Lab	:	May 26, 2010
Sample Type	:	One (1) Water
SDG Number	:	F0E250568
Project Name/Number	:	F0E250568

CASE NARRATIVE

I. Introduction

On May 26, 2010, one water sample was received at the TestAmerica Richland laboratory for radiochemical analysis. Upon receipt at the TestAmerica St. Louis laboratory, the sample was assigned to Lot Number F0E250568 with the laboratory ID number corresponding to the client ID as shown on the cover page.

II. Sample Receipt

The sample was received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information; analytical results and the appropriate associated statistical uncertainties.

The analyses requested were:

Gamma Spectroscopy
Gamma by method RL-GAM-001 (RICH-RC-5017)*
Gas Proportional Counter
Gross Alpha by method RL-GPC-001 (STL RICH-RC-5014)*
Gross Beta Analysis by method RL-GPC-001(RICH-RC-5014)*
Radium-228 by method RL-RA-001 (RICH-RC-5005)*
Alpha Scintillation
Radium-226 by method RL-RA-001 (RICH-RC-5005)*
Total Uranium
Total Uranium by method RL-KPA-003 (RICH-RC-5058)*

SOP ID's changed effective 7-01-2008. Attached is a cross reference until SOP ID's are changed in all systems.

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IV. Quality Control

The analytical result for each analysis performed includes a minimum of one laboratory control sample (LCS), and one reagent blank sample analysis. Any exceptions have been noted in the "Comments" section.

V. Comments

Gas Proportional

Gross Alpha Analysis:
The achieved MDA of the sample and the sample duplicate does not meet the CRDL due to reduced aliquots based on weight screens. The sample and the sample duplicate were counted for the maximum time applied for the method. Therefore, data can be accepted. Except as noted, the LCS, batch blank, sample, and sample duplicate results are within acceptance limits.

Gross Beta Analysis:
The achieved MDA of the sample and the sample duplicate does not meet the CRDL due to reduced aliquots based on weight screens. The sample and the sample duplicate activity exceed the achieved MDA/CRDL. Therefore, data can be accepted. Except as noted, the LCS, batch blank, sample, and sample duplicate results are within acceptance limits.

Radium-228 by method RL-RA-001 (RICH-RC-5005):
The LCS, batch blank, samples and sample duplicate results are within acceptance limits.

Gamma Spectroscopy

Gamma by method RL-GAM-001 (RICH-RC-5017):
Upon original count, the sample and sample duplicate did not meet the CRDL; the batch was recounted for 1000 minutes. The sample and sample duplicate now meet the CRDL. The LCS recovery is slightly below acceptance criteria, 72%. The samples can be re-analyzed per client's request. Data is accepted. Except as noted, the LCS, batch blank sample and sample duplicate results are within acceptance limits.

Alpha Scintillation

Radium-226 by method RL-RA-001 (RICH-RC-5005):
The LCS, batch blank, sample duplicate and sample results are within acceptance limits.

Total Uranium

Total Uranium by method RL-KPA-003 (RICH-RC-5058):
The LCS, batch blank, matrix spike, samples and sample duplicate results are within acceptance limits.

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TestAmerica – St. Louis
June 29, 2010

I certify that this Certificate of Analysis is in compliance with the SOW and/or NELAC, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Christi Hayes
Project Manager

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Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
Asbestos	RL-ASB-001	N/A	NIOSH 7400	Fiber Counting by Phase Contrast Microscopy based on NIOSH 7400
Asbestos	RL-ASB-002	N/A	NIOSH 9002	Sample Prep and Analysis for Asbestos (bulk) by Polarized Light Microscopy based on NIOSH 9002
Alpha - Gross	ARCHIVED	RICH-RB-5035	Liquid Scintillation Anal/ Packard	DETERMINATION OF GROSS ALPHA IN NASAL SMBARS BY LIQUID SCINTILLATION COUNTING
Alpha - Gross	RL-GPC-001	RICH-RC-5014	9310 / EPA SW846 900.0 / EPA 600	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN WATER BY METHOD 9310
Alpha - Gross	RL-GPC-007	RICH-RC-5020	SM 7110B EPA 680	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN SOIL, SHORELINE SOIL, FOOD AND VEGETATION
Alpha - Gross	RL-GPC-002	RICH-RC-5021	00-02 EPA 520	DETERMINATION OF GROSS ALPHA ACTIVITY IN WATER BY COPRECIPITATION
Alpha - Gross	RL-GPC-008	RICH-RC-5036	ER100 / LANL	PREPARATION OF AIR FILTERS FOR GROSS ALPHA/BETA AND COMPOSITING AIR FILTERS
Am	RL-ALP-003	RICH-RC-5072	Mod RP 725 / DOE0089T EXT Chromatography	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
Am	RL-ALP-010	RICH-RC-5080	Am03/Pu11HASL 300 NAS-NS-3006	SEQUENTIAL SEPARATION OF PLUTONIUM AND AMERICIUM
Beta - Gross	RL-GPC-001	RICH-RC-5014	9310 / EPA SW846 900.0 / EPA 600	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN WATER BY METHOD 9310
Beta - Gross	RL-GPC-007	RICH-RC-5020	SM 7110B EPA 680	DETERMINATION OF GROSS ALPHA AND GROSS BETA IN SOIL, SHORELINE SOIL, FOOD AND VEGETATION
Beta - Gross	RL-GPC-008	RICH-RC-5036	ER100 / LANL	PREPARATION OF AIR FILTERS FOR GROSS ALPHA/BETA AND COMPOSITING AIR FILTERS
C14	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
C14	RL-LSC-008	RICH-RC-5022	EPA C-01 / EPA 520	CARBON 14 BY DIGESTION METHOD
C14	RL-LSC-009	RICH-RC-5040	Mod C14 / EPA 680	DETERMINATION OF CARBON-14 BY BENZENE SYNTHESIS
C14	RL-LSC-010	RICH-RC-5046	EPA C-01 / EPA 520	DETERMINATION OF CARBON-14 IN GRAPHITE AND SOIL
C14	RL-LSC-011	RICH-RC-5047	Mod H-02 / EPA 520	DETERMINATION OF CARBON-14 IN WATER BY DIRECT COUNTING
Cm	RL-ALP-003	RICH-RC-5072	Mod RP 725 / DOE0089T EXT Chromatography	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
Coliform	RL-WC-001	RICH-WC-5001	9222B	DETERMINATION OF TOTAL COLIFORM: MULTIPLE TUBE FERMENTATION TECHNIQUE
Coliform	RL-WC-002	RICH-WC-5002	9131	TOTAL COLIFORMS BY MEMBRANE FILTRATION
Coliform	RL-WC-005	RICH-WC-5007	9223	TOTAL COLIFORM BY THE COLILERT METHOD
Cr6+	RL-WC-003	RICH-WC-5003	7196A, SW846	DETERMINATION OF HEXAVALENT CHROMIUM [Cr(VI)] IN WATER, SOIL, AND SIMILAR MATRICES
Cr6+	RL-WC-004	RICH-WC-5005	3060 / SW846	DETERMINATION OF HEXAVALENT CHROMIUM (CrVI) IN SOLID MATRICES WITH ALKALINE DIGESTION
Fe	RL-LSC-015	RICH-RC-5074	EXT Chromatography ModFe55/PNL-ALO-435	SEPARATION OF IRON AND NICKEL BY EXTRACTION CHROMATOGRAPHY
Fe55	RL-LSC-016	RICH-RC-5023	R4-73-014 / EPA HASL 300	DETERMINATION OF IRON-55 AND IRON-59 IN WATER
Fe59	RL-LSC-016	RICH-RC-5023	R4-73-014 / EPA HASL 300	DETERMINATION OF IRON-55 AND IRON-59 IN WATER
Gamma	RL-GAM-001	RICH-RC-5017	901.0 / HASL 300 ASTM D3649	PREPARATION OF ALL MATRICES FOR ANALYSIS BY GAMMA SPECTROSCOPY
H3	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
H3	RL-LSC-003	RICH-RB-5034	7500-3 / SM	DETERMINATION OF TRITIUM IN URINE BY DISTILLATION
H3	RL-LSC-004	RICH-RC-5004	H3 / EPA LV539	DETERMINATION OF TRITIUM IN AIR
H3	RL-LSC-005	RICH-RC-5007	Mod 906.0 / EPA 600	SEPARATION OF TRITIUM IN WATER AND AQUEOUS COMPONENT OF WINE
H3	RL-LSC-007	RICH-RC-5024	H-3 by EE EPA LV539 / HASL 300	DETERMINATION OF LOW LEVEL TRITIUM IN WATER BY ELECTROLYTIC ENRICHMENT
H3	RL-LSC-002	RICH-RC-5037	H-3 in Water/Tissue / LV 539	DETERMINATION OF TRITIUM BY CRYOGENIC DISTILLATION

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Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
H3	RL-LSC-006	RICH-RC-5048	H-3 in Water/Tissue / LV 539	TRITIUM PREPARATION IN MILK SAMPLES
I129	RL-GAM-002	RICH-RC-5025	R4-73-0141/EPA ASTM D2334 (Discontinued)	DETERMINATION OF IODINE-131 AND 129 IN WATER BY SOLVENT EXTRACTION METHOD
I131	RL-GAM-002	RICH-RC-5025	R4-73-0141/EPA ASTM D2334 (Discontinued)	DETERMINATION OF IODINE-131 AND 129 IN WATER BY SOLVENT EXTRACTION METHOD
I131	ARCHIVED	RICH-RC-5049	HASL 300 (1983)	DETERMINATION OF IODINE-131 IN MILK BY BATCH ION-EXCHANGE
Metals	ARCHIVED	BHI-MT-0001	6010	ICP-AE SPECTROSCOPY, SPECTROMETRIC METHOD FOR TRACE ELEMENT ANALYSIS, METHOD 6010A FOR Bechtel
Metals	RL-MT-001	RICH-MT-0001	6010B	ICP-AES for TRACE ELEMENT ANALYSIS, METHOD 6010B
Metals	RL-MT-002	RICH-MT-0002	SW486 3050B	ACID DIGESTION FOR ICP ANALYSIS
Metals	RL-MT-003	RICH-MT-0003	NIOSH 7300	DIGESTION PREP based on METHOD NIOSH 7300
Ni	RL-LSC-015	RICH-RC-5074	EXT Chromatography ModFe55/PNL-ALO-435	SEPARATION OF IRON AND NICKEL BY EXTRACTION CHROMATOGRAPHY
Ni63	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
Ni63	RL-LSC-017	RICH-RC-5069	EXT Chromatography Mod RP300 / DOE0089T	SEPARATION OF Ni-63 BY EXTRACTION CHROMATOGRAPHY
Np	RL-ALP-013	RICH-RC-5009	NAS-NS-3060	DETERMINATION OF NEPTUNIUM-237 BY LIQUID-LIQUID EXTRACTION IN ALL MATRICES
Np	RL-ALP-006	RICH-RC-5064	EXT Chromatography	SEPARATION OF NEPTUNIUM BY EXTRACTION CHROMATOGRAPHY
P32	RL-LSC-001	RICH-RB-5013	Mod H-02 / EPA 520	TRITIUM, CARBON-14, NICKEL-63 OR PHOSPHORUS-32 ANALYSIS IN URINE
Pb	RL-ALP-011	RICH-RC-5076	EXT Chromatography	DETERMINATION OF LEAD-210 BY EXTRACTION CHROMATOGRAPHY
Po	RL-ALP-007	RICH-RB-5001	NAS-NS-3037 HASL 300	DETERMINATION OF POLONIUM-210 IN URINE
Po	RL-ALP-012	RICH-RC-5012	Po-01 / HASL 300 Mod U01 HASL 300	SEPARATION OF ISOTOPIC URANIUM AND POLONIUM-210 IN WATER, SOIL AND FILTERS
Prep - Bioassay	ARCHIVED	RICH-RB-0001		PREPARATION FOR RAPID BIOASSAY ANALYSES
Prep - Bioassay	RL-PRP-001	RICH-RB-5002	Mod Pu06 / HASL 300	PREPARATION OF URINE AND BLOOD SAMPLES
Prep - Bioassay	ARCHIVED	RICH-RB-5004	ASTM D1429-95	DETERMINATION OF SPECIFIC GRAVITY OF URINE
Prep - Bioassay	RL-RPL-002	RICH-RB-5036	Pub 6490,6601 / PNL	PREPARATION OF SYNTHETIC URINE AND FECES USING RECIPES FROM HPS N13.30 PREFORMANCE TESTING
Prep - Bioassay	RL-PRP-002	RICH-RB-5037	LA-10300-M R200 ASTM D3865	PREPARATION OF FECAL SAMPLES USING HYDROFLUORIC ACID DIGESTION
Prep - Bioassay	RL-RPL-003	RICH-RC-5028	ICRP Publication 23	PREPARATION OF SYNTHETIC URINE AND FECES
Prep - Count	RL-ALP-016	RICH-RC-5003	G-03 / HASL 300	COPRECIPITATION OF SOME ACTINIDES ON NEODYMIUM FLUORIDE FOR ALPHA-PARTICLE SPECTROMETRY
Prep - Count	RL-ALP-015	RICH-RC-5039	G-03 / HASL 300 Anal Chem 1972	ELECTRODEPOSITION OF ACTINIDES
Prep - Count	RL-ALP-014	RICH-RC-5085	Morrison & Freiser NAS-NS-3050	ANHYDROUS ETHER EXTRACTION OF URANIUM
Prep - Env	RL-KPA-001	RICH-RC-5015	ASTM / D5174-97	ENVIRONMENTAL SAMPLE PREPARATION FOR URANIUM BY LASER-INDUCED PHOSPHORESCENCE
Prep - Env	RL-PRP-004	RICH-RC-5016	Sr02 / HASL 300	PREPARATION OF ENVIRONMENTAL MATRICES
Prep - Env	RL-PRP-007	RICH-RC-5045	Mod Pu02 / HASL 300	PREPARATION OF MIXED BED RESINS AND PRE-FILTERS
Prep - Env	RL-PRP-008	RICH-RC-5068	Mod BR100 / LA10300	PREPARATION OF SOIL, VEGETATION AND AIR FILTERS BY MIXED STRONG ACID LEACHING
Prep - Resin	RL-ALP-017	RICH-RC-5018	Mod Pu11 / Mod 300	ION-EXCHANGE PREPARATION
Prep - Soil	RL-PRP-003	RICH-RC-5013	Pu02A / HASL 300	PREPARATION OF SOIL SAMPLES
Prep - Soil	RL-PRP-005	RICH-RC-5019	D5259 / ASTM SW 846/3015/3051/3052	PREPARATION AND DISSOLUTION OF SEDIMENTS AND SOIL BY MICROWAVE BOMB DIGESTION

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Isotope	Richland SOP #	Old Richland SOP #	Method Reference	Title
Prep - Soil	RL-PRP-006	RICH-RC-5032	Pu02A / HASL 300	COMPLETE DISSOLUTION BY MIXED ACIDS IN A TEFLON BEAKER
Prep - Soil	RL-PRP-009	RICH-RC-5077	Mod ER100 / LA10300	PREPARATION OF SMALL SOIL SAMPLES FOR GAMMA SPEC AND/OR RADIOCHEM ANAL BY ACID DIGESTION
Prep - Urine	RL-PRP-010	RICH-RC-5086	AnalyticaChemActa1992 RP800 / DOE00089T	URINE AND WATER SAMPLE PREPARATION BY CALCIUM PHOSPHATE PRECIPITATION
Prep - Water	RL-PRP-010	RICH-RC-5086	AnalyticaChemActa1992 RP800 / DOE00089T	URINE AND WATER SAMPLE PREPARATION BY CALCIUM PHOSPHATE PRECIPITATION
Pu	ARCHIVED	RICH-RB-5015	Pu11 / HASL 300	RAPID DETERMINATION OF PLUTONIUM IN FECES
Pu	RL-ALP-002	RICH-RC-5010	Pu11 / HASL 300	DETERMINATION OF ISOTOPIC PLUTONIUM IN ALL MATRICES
Pu	RL-ALP-010	RICH-RC-5080	Am03 HASL 300 Pu11 / HASL 300	SEQUENTIAL SEPARATION OF PLUTONIUM AND AMERICIUM
Pu	RL-ALP-001	RICH-RC-5087	AnalyticaChemActa1992 RP800 / DOE00089T	DETERMINATION OF PLUTONIUM BY EXTRACTION CHROMATOGRAPHY
Ra	RL-RA-001	RICH-RC-5005	903.1 / EPA 600	RADIUM-226 AND RADIUM-228 SEPARATION IN RADIOCHEMICAL MATRICES - ADAPTED FROM EPA 903.1 AND 904.0
Ra	RL-RA-001	RICH-RC-5005	904.0 / EPA 600	RADIUM-226 AND RADIUM-228 SEPARATION IN RADIOCHEMICAL MATRICES - ADAPTED FROM EPA 903.1 AND 904.0
Ra	RL-RA-002	RICH-RC-5027	Mod D2460/ ASTM 903.0 / EPA 600	DETERMINATION OF TOTAL RADIUM
Rn	RL-LSC-019	RICH-RC-5082	913.0 / EPA	DETERMINATION OF RADON-222 - ADAPTED FROM METHOD 913.0
S35	ARCHIVED	RICH-RB-5020	Hillebrand, Lundiell, Bright, Hoffman 1953	DETERMINATION OF SULFUR-35 IN URINE
Se79	RL-LSC-012	RICH-RC-5043	Selenium / NAS-NS-3030	RADIOCHEMICAL DETERMINATION OF SELENIUM-79
Solubility	ARCHIVED	RICH-RC-5035	Kalfward&Thomas PNL3716	DETERMINATION OF SOLUBILITY OF RADIOACTIVE PARTICLE CONSTITUENTS
Sr	RL-GPC-005	RICH-RB-5007	Mod Sr02 / HASL 300 Mod 905.0 / EPA 600	DETERMINATION OF TOTAL STRONTIUM IN URINE
Sr	RL-GPC-006	RICH-RB-5021	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	DETERMINATION OF STRONTIUM IN FECES
Sr	ARCHIVED	RICH-RB-5022	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	DETERMINATION OF TOTAL STRONTIUM IN URINE FOR RAPID ANALYSIS
Sr	ARCHIVED	RICH-RB-5031	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	RAPID DETERMINATION OF TOTAL STRONTIUM IN FECES
Sr	RL-GPC-003	RICH-RC-5006	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	STRONTIUM SEPARATION IN ENVIROMENTAL MATRICES
Sr - Yt	RL-GPC-004	RICH-RC-5071	Mod Sr02 / HASL300 Mod 905.0 / EPA 600	YTTRIUM-90 SEPARATION FOR STRONTIUM-90 DETERMINATION IN ALL MATRICES
Tc	RL-LSC-014	RICH-RC-5065	EXT Chromatography Mod RP550 / DOE0089T	DETERMINATION OF TECHNETIUM-99 BY EXTRACTION CHROMATOGRAPHY
Tc	RL-LSC-013	RICH-RC-5078	Tc01 / HASL 300	SEPARATION OF TECHNETIUM-99 IN ALL MATRICES
Th	RL-ALP-008	RICH-RB-5006	Mod Th01 / HASL 300	SEPARATION OF THORIUM FROM URINE AND FECAL SAMPLES
Th	RL-ALP-005	RICH-RC-5084	Mod Th01 / HASL 300 Anal Chim Acta 1982	DETERMINATION OF THORIUM ISOTOPIC IN ENVIRONMENTAL MATRICES
U	RL-ALP-012	RICH-RC-5012	Po-01 / HASL 300 Mod U01 / HASL 300	SEPARATION OF ISOTOPIC URANIUM AND POLONIUM-210 IN WATER, SOIL AND FILTERS
U	RL-KPA-002	RICH-RC-5031	Mod U01 / HASL 300	SEPARATION OF TOTAL URANIUM IN WATER AND URINE
U	RL-KPA-003	RICH-RC-5058	D5174 / ASTM	DETERMINATION OF URANIUM BY PHOSPHORESCENCE ANALYSIS
U	RL-ALP-004	RICH-RC-5067	EXT Chromatography Mod RP725 / DOE0089T	SEPARATION OF URANIUM BY EXTRACTION CHROMATOGRAPHY
U	RL-ALP-003	RICH-RC-5072	EXT Chrom Mod RP725 & 800 / DOE0089T	SEPARATION OF AMERICIUM, CURIUM, AND URANIUM BY EXTRACTION CHROMATOGRAPHY
U	RL-ALP-009	RICH-RC-5079	EXT Chromatography Mod RP725 / DOE0089T	DETERMINATION OF ISOTOPIC URANIUM IN ALL MATRICES

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Drinking Water Method Cross References

	DRINKING WATER ASTM METHOD CROSS REFERENCES	
Referenced Method	**Isotope(s)**	**TestAmerica Richland's SOP No.**
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, R = constants * f(x,y,z,...). The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/?n), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

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Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
Total Uncert (#s) u_c - *Combined Uncertainty.*	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, u_c *the combined uncertainty.* The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. Lc=(1.645 * Sqrt(2*(BkgrndCnt/BkgrndCntMin)/SCntMin)) * (ConvFct/(Eff*Yld*Abn*Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC|MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. MDC = (4.65 * Sqrt((BkgrndCnt/BkgrndCntMin)/SCntMin) + 2.71/SCntMin) * (ConvFct/(Eff * Yld * Abn * Vol) * IngrFct). For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number.
RER	The equation Replicate Error Ratio = (S-D)/[sqrt($TPUs^2$ + $TPUd^2$)] as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

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Sample Results Summary

Date: 29-Jun-10

TestAmerica

Ordered by Method, Batch No., Client Sample ID.

Report No. : 44167

SDG No: F0E250568

Batch	Client Id / Work Order	Parameter	Result +- Uncertainty (1s)	Qual	Units	Tracer Yield	MDC or MDA	CRDL	RER2
0148319	EPA 901.1								
	OUTFALL 008								
	L12WF2AA	CESIUM-137	7.57E-01 +- 5.5E+00	U	pCi/L		1.90E+01	2.00E+01	
	OUTFALL 008 DUP								
	L12WF2AK	CESIUM-137	6.81E+00 +- 6.3E+00	U	pCi/L		1.85E+01		
0148316	EPA 903.1								
	OUTFALL 008								
	L12WF1AC	RADIUM-226	3.24E+00 +- 3.4E-01		pci/l	91%	1.22E-01	1.00E+00	
	OUTFALL 008 DUP								
	L12WF1AH	RADIUM-226	3.35E+00 +- 3.6E-01		pci/l	94%	1.35E-01		0.2
0148317	EPA 904.0								
	OUTFALL 008								
	L12WF1AD	RADIUM-228	2.18E+00 +- 2.6E-01		pci/l	78%	7.57E-01	3.00E+00	
	OUTFALL 008 DUP								
	L12WF1AJ	RADIUM-228	2.23E+00 +- 2.5E-01		pci/l	74%	7.14E-01		0.1
0148320	SW9310								
	OUTFALL 008								
	L12WF1AF	BETA activity	1.14E+02 +- 9.0E+00		pci/l	100%	1.41E+01	4.00E+00	
	OUTFALL 008 DUP								
	L12WF1AL	BETA activity	1.09E+02 +- 8.5E+00		pci/l	100%	1.23E+01		0.4
0148323	EPA 900								
	OUTFALL 008								
	L12WF1AG	ALPHA activity	5.21E+00 +- 2.0E+00	U	pci/l	100%	5.76E+00	3.00E+00	
	OUTFALL 008 DUP								
	L12WF1AM	ALPHA activity	1.25E+00 +- 1.2E+00	U	pci/l	100%	4.92E+00		1.7
0148325	?								
	OUTFALL 008								
	L12WF1AE	URANIUM	7.05E-01 +- 4.1E-02		ug/L		8.42E-02	1.00E+00	
	OUTFALL 008 DUP								
	L12WF1AP	URANIUM	9.09E-01 +- 5.1E-02		ug/L		8.19E-02		

No. of Results: 12

TestAmerica
rptSTLRch9aSummary2 V5.2.5
A2002

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

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MSD 024303

QC Results Summary

Date: 29-Jun-10

TestAmerica

Ordered by Method, Batch No, QC Type,.

Report No. : 44167

SDG No.: F0E250568

Batch Work Order	Parameter	Result +- Uncertainty (1s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDC|MDA
EPA 901.1								
0148319 BLANK QC,								
L18WV2AA	CESIUM-137	< 4.75E+00 +- 3.3E+00	U	pCi/L				1.15E+01
0148319 LCS,								
L18WV2AC	CESIUM-137	7.43E+02 +- 5.3E+01		pCi/L		72%	-0.3	1.06E+01
EPA 903.1								
0148316 BLANK QC,								
L18WQ1AA	RADIUM-226	3.86E-02 +- 2.8E-02	U	pci/l	100%			9.61E-02
0148316 LCS,								
L18WQ1AC	RADIUM-226	9.75E+00 +- 9.9E-01		pci/l	100%	98%	0.0	7.86E-02
EPA 904.0								
0148317 BLANK QC,								
L18WR1AA	RADIUM-228	4.09E-01 +- 1.8E-01	U	pci/l	85%			7.55E-01
0148317 LCS,								
L18WR1AC	RADIUM-228	1.03E+01 +- 6.8E-01		pci/l	86%	105%	0.1	8.37E-01
SW9310								
0148320 BLANK QC,								
L18W21AA	BETA activity	3.26E-01 +- 4.5E-01	U	pci/l	100%			1.79E+00
0148320 LCS,								
L18W21AC	BETA activity	3.91E+01 +- 2.7E+00		pci/l	100%	97%	0.0	1.71E+00
EPA 900								
0148323 BLANK QC,								
L18W41AA	ALPHA activity	1.20E-01 +- 7.7E-02	U	pci/l	100%			2.75E-01
0148323 LCS,								
L18W41AC	ALPHA activity	3.82E+01 +- 4.0E+00		pci/l	100%	94%	-0.1	3.92E-01
?								
0148325 BLANK QC,								
L18W51AA	URANIUM	2.28E-02 +- 1.4E-03	U	ug/L				8.38E-02
0148325 LCS,								
L18W51AD	URANIUM	3.46E+00 +- 1.8E-01		ug/L		98%	0.0	8.32E-02
L18W51AC	URANIUM	3.72E+01 +- 2.2E+00		ug/L		105%	0.1	8.22E-02
0148326 MATRIX SPIKE, OUTFALL 006								
L12WF1AN	URANIUM	3.83E+01 +- 2.0E+00		ug/L		106%	0.1	8.45E-02

No. of Results: 14

TestAmerica
rptSTLRchQcSummary V5.2.5 A2002

Bias - (Result/Expected)-1 as defined by ANSI N13.30.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

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FORM I

SAMPLE RESULTS

Date: 29-Jun-10

Lab Name: TestAmerica
Lot-Sample No.: F0E250568-1
Client Sample ID: OUTFALL 008
BRIDGETON LANDFILL

SDG: F0E250568
Report No.: 44167
COC No.:

Collection Date: 5/25/2010 11:25:00 AM
Received Date: 5/25/2010 12:15:00 PM
Matrix: water WG
Ordered by Client Sample ID, Batch No.

Parameter	Result	Qual	Count Error (1 s)	Total Uncert (1 s)	MDC|MDA, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0148316	EPA 903.1			Work Order: L12WF1AC		Report DB ID: 9L12WF10						
RADIUM-226	**3.24E+00**		1.4E-01	3.4E-01	1.22E-01 pci/l	5.29E-02	91% 1.00E+00	*(26.5)* *(9.4)*	6/17/10 01:51 p		1.003 L	ASCFAC
Batch: 0148317	EPA 904.0			Work Order: L12WF1AD		Report DB ID: 9L12WF10						
RADIUM-228	**2.18E+00**		2.2E-01	2.6E-01	7.57E-01 pci/l	3.52E-01	78% 3.00E+00	*(2.9)* *(8.5)*	6/18/10 02:48 p		1.003 L	GPC5A
Batch: 0148319	EPA 901.1			Work Order: L12WF2AA		Report DB ID: 9L12WF20						
CESIUM-137	**7.57E-01**	U	5.5E+00	5.5E+00	1.90E+01 pCi/L		2.00E+01	*0.04* *0.14*	6/23/10 11:43 a		0.2 L	GER5$1
Batch: 0148320	SW9310			Work Order: L12WF1AF		Report DB ID: 9L12WF10						
BETA activity	**1.14E+02**		5.7E+00	9.0E+00	1.41E+01 pci/l	6.83E+00	100% 4.00E+00	*(8.1)* *(12.7)*	6/14/10 03:58 p		0.0332 L	GPC26A
Batch: 0148323	EPA 900			Work Order: L12WF1AG		Report DB ID: 9L12WF10						
ALPHA activity	**5.21E+00**	U	1.9E+00	2.0E+00	5.76E+00 pci/l	2.31E+00	100% 3.00E+00	*0.9* *(2.7)*	6/14/10 07:54 p		0.0201 L	GPC10A
Batch: 0148325	?			Work Order: L12WF1AE		Report DB ID: 9L12WF10						
URANIUM	**7.05E-01**			4.1E-02	8.42E-02 ug/L	2.98E-02	1.00E+00	*(8.4)* *(17.3)*	6/15/10 02:29 p		0.0249 ML	KPAW3

No. of Results: 6 Comments:

TestAmerica
rptSTLRchSample
05.2.5 A0002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

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12

MSD 024305

FORM II

DUPLICATE RESULTS

Date: 29-Jun-10

Lab Name: TestAmerica
Lot-Sample No.: F0E250568-1
Client Sample ID: OUTFALL 008 DUP

SDG: F0E250568
Report No. : 44167
COC No. :

Collection Date: 5/25/2010 11:25:00 AM
Received Date: 5/25/2010 12:15:00 PM
Matrix: WATER WG

Parameter	Result, Orig Rst	Qual	Count Error (1 s)	Total Uncert(1 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0148316	EPA 903.1			Work Order: L12V/F1AH		Report DB ID: L12WF1HR			Orig Sa DB ID: 9L12WF10			
RADIUM-226	3.35E+00		1.5E-01	3.6E-01	1.35E-01	pci/l	94%	(24.9)	6/17/10 01:53 p		1.0017	ASCGAB
	3.24E+00		RER2 0.2					(9.3)			L	
Batch: 0148317	EPA 904.0			Work Order: L12WF1AJ		Report DB ID: L12WF1JR			Orig Sa DB ID: 9L12WF10			
RADIUM-228	2.23E+00		2.2E-01	2.5E-01	7.14E-01	pci/l	74%	(3.1)	6/18/10 02:48 p		1.0017	GPC5B
	2.18E+00		RER2 0.1					(8.8)			L	
Batch: 0148319	EPA 901.1			Work Order: L12WF2AK		Report DB ID: L12WF2KR			Orig Sa DB ID: 9L12WF20			
CESIUM-137	6.81E+00	U	5.3E+00	5.3E+00	1.85E+01	pCi/L		0.37	6/23/10 11:43 a		0.2	GER7$1
	7.57E-01	U	RER2 0.8					(1.3)			L	
Batch: 0148320	SW9310			Work Order: L12WF1AL		Report DB ID: L12WF1LR			Orig Sa DB ID: 9L12WF10			
BETA activity	1.09E+02		5.3E+00	8.5E+00	1.23E+01	pci/l	100%	(8.9)	6/14/10 03:58 p		0.0332	GPC26B
	1.14E+02		RER2 0.4					(12.8)			L	
Batch: 0148323	EPA 900			Work Order: L12WF1AM		Report DB ID: L12WF1MR			Orig Sa DB ID: 9L12WF10			
ALPHA activity	1.25E+00	U	1.2E+00	1.2E+00	4.92E+00	pci/l	100%	0.25	6/14/10 07:54 p		0.0201	GPC10B
	5.21E+00	U	RER2 1.7					(1.)			L	
Batch: 0148325	?			Work Order: L12WF1AP		Report DB ID: L12WF1PR			Orig Sa DB ID: 9L12WF10			
URANIUM	9.09E-01			5.1E-02	8.19E-02	ug/L		(11.1)	6/15/10 02:47 p		0.0256	KPAW3
	7.05E-01		RER2 3.1					(17.8)			ML	

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

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rptSTLRchDupV5.2
.5 A2002

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FORM II

Date: 29-Jun-10

DUPLICATE RESULTS

Lab Name:	TestAmerica	SDG:	F0E250568	Collection Date:	5/25/2010 11:25:00 AM
Lot-Sample No.:	F0E250568-1	Report No. :	44167	Received Date:	5/25/2010 12:15:00 PM
Client Sample ID:	OUTFALL 008 DUP	COC No. :		Matrix:	water WG

Parameter	Result, Orig Rst	Qual	Count Error (1 s)	Total Uncert(1 s)	MDC|MDA, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector

No. of Results: 6 Comments:

14

RER2 - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA.
MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.

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TpMSTLRchDupV5.2
5.A2002

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MSD 024307

FORM II

BLANK RESULTS

Date: 29-Jun-10

Lab Name: TestAmerica

Matrix: Unk

SDG: F0E250568

Report No. : 44167

Parameter	Result	Qual	Count Error (1 s)	Total Uncert(1 s)	MDC|MDA, Lc	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0148317	EPA 904.0			Work Order: L18WR1AA		Report DB ID: L18WR1AB						
RADIUM-228	4.09E-01	U	1.8E-01	1.8E-01	7.55E-01	pci/l	85%	0.54	6/18/10 02:48 p		1.0004	GPC5C
					3.53E-01	3.00E+00		(2.3)			L	

No. of Results: 1 Comments:

TestAmerica
rptSTLRchBlank
15.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on Instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

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FORM II

BLANK RESULTS

Date: 29-Jun-10

Lab Name: TestAmerica

Matrix: WATER

SDG: F0E250568

Report No. : 44167

Parameter	Result	Qual	Count Error (1 s)	Total Uncert(1 s)	MDC|MDA, Lc	Rpt Unit, CRDL	Yield	Rst/MDC, Rst/TotUcert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 0148319	EPA 901.1			Work Order: L18WV2AA		Report DB ID: L18WV2AB						
CESIUM-137	4.75E+00	U	3.3E+00	3.3E+00	1.15E+01	pCi/L		0.41	6/23/10 11:44 a		0.2001	GER13$1
						2.00E+01		(1.4)			L	
Batch: 0148323	EPA 900			Work Order: L18W41AA		Report DB ID: L18W41AB						
ALPHA activity	1.20E-01	U	7.6E-02	7.7E-02	2.75E-01	pci/l	100%	0.44	6/14/10 07:54 p		0.2001	GPC10C
					1.04E-01	3.00E+00		(1.6)			L	
Batch: 0148320	SW9310			Work Order: L18W21AA		Report DB ID: L18W21AB						
BETA activity	3.26E-01	U	4.5E-01	4.5E-01	1.79E+00	pci/l	100%	0.18	6/14/10 03:58 p		0.2002	GPC26C
					8.61E-01	4.00E+00		0.73			L	
Batch: 0148316	EPA 903.1			Work Order: L18WQ1AA		Report DB ID: L18WQ1AB						
RADIUM-226	3.86E-02	U	2.8E-02	2.8E-02	9.61E-02	pci/l	100%	0.4	6/17/10 01:47 p		1.0004	ASCJMB
					4.06E-02	1.00E+00		(1.4)			L	
Batch: 0148325	?			Work Order: L18W51AA		Report DB ID: L18W51AB						
URANIUM	2.28E-02	U		1.4E-03	8.38E-02	ug/L		0.27	6/15/10 01:52 p		0.025	KPAW3
					2.97E-02	1.00E+00		(16.1)			ML	

No. of Results: 5 Comments:

TestAmerica
rptSTL-RchBlank
V5.2.5 A2002

MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
U Qual - Analyzed for but not detected above limiting criteria. Limit criteria is less than the Mdc/Mda or Total Uncert or not identified by gamma scan software.

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FORM II

LCS RESULTS

Date: 29-Jun-10

Lab Name: TestAmerica

Matrix: Unk

SDG: F0E250568

Report No. : 44167

Parameter	Result	Qual	Count Error (1 s)	Total Uncert(1 s)	MDC|MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 0148317	EPA 904.0			Work Order: L18WR1AC			Report DB ID: L18WR1CS						
RADIUM-228	1.03E+01		3.8E-01	6.8E-01	8.37E-01	pci/l	86%	9.74E+00	3.2E-01	105%	6/18/10 02:48 p	1.0014	GPC5D
							Rec Limits:	70	130	0.1		L	

No. of Results: 1 Comments:

TestAmerica Bias - (Result/Expected)-1 as defined by ANSI N13.30.

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TestAmerica Laboratories, Inc.

FORM II

Date: 29-Jun-10

LCS RESULTS

Lab Name: TestAmerica

Matrix: WATER

SDG: F0E250568

Report No. : 44167

Parameter	Result	Qual	Count Error (1 s)	Total Uncert(1 s)	MDC[MDA	Report Unit	Yield	Expected	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 0148319	EPA 901.1			Work Order: L18WV2AC			Report DB ID: L18WV2CS						
CESIUM-137	7.43E+02		5.3E+01	5.3E+01	1.06E+01	pCi/L		1.03E+03	2.5E+03	72%	6/23/10 11:44 a	0.2	GER10$1
							Rec Limits:	70	130	-0.3		L	
Batch: 0148323	EPA 900			Work Order: L18W41AC			Report DB ID: L18W41CS						
ALPHA activity	3.82E+01		1.0E+00	4.0E+00	3.92E-01	pci/l	100%	4.07E+01	4.1E-01	94%	6/14/10 07:54 p	0.2002	GPC10D
							Rec Limits:	70	130	-0.1		L	
Batch: 0148320	SW9310			Work Order: L18W21AC			Report DB ID: L18W21CS						
BETA activity	3.91E+01		1.1E+00	2.7E+00	1.71E+00	pci/l	100%	4.02E+01	2.0E+00	97%	6/14/10 03:58 p	0.2003	GPC26D
							Rec Limits:	70	130	0.0		L	
Batch: 0148316	EPA 903.1			Work Order: L18WQ1AC			Report DB ID: L18WQ1CS						
RADIUM-226	9.75E+00		2.4E-01	9.9E-01	7.86E-02	pci/l	100%	9.96E+00	1.0E-01	98%	6/17/10 01:47 p	1.0014	ASCKMD
							Rec Limits:	70	130	0.0		L	
Batch: 0148325	?			Work Order: L18W51AC			Report DB ID: L18W51CS						
URANIUM	3.72E+01			2.2E+00	8.22E-02	ug/L		3.53E+01	2.0E-01	105%	6/15/10 01:59 p	0.0255	KPAW3
							Rec Limits:	70	130	0.1		ML	
Batch: 0148325	?			Work Order: L18W51AD			Report DB ID: L18W51DS						
URANIUM	3.48E+00			1.8E-01	8.32E-02	ug/L		3.54E+00	2.8E-02	98%	6/15/10 02:04 p	0.0252	KPAW3
							Rec Limits:	70	130	0.0		ML	

No. of Results: 6 Comments:

TestAmerica Bias - (Result/Expected)-1 as defined by ANSI N13.30.

rptSTBatchLcs
V5.2.5.A2002

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TestAmerica Laboratories, Inc.

FORM II

MATRIX SPIKE RESULTS

Date: 29-Jun-10

Lab Name: TestAmerica

SDG: F0E250568

Lot-Sample No.: F0E250568-1, OUTFALL 008

Report No. : 44167

Matrix: water WG

Parameter	SpikeResult, Orig Rst	Qual	Count Error (1 s)	Total Uncert(1 s)	MDC|MDA	Rpt Unit, CRDL	Yield	Rec-overy	Expected, Uncert	Analysis, Prep Date	Aliquot Size	Analy Method, Primary Detector
Batch: 0148325	Work Order: L12WF1AN			Report DB ID: L12WF1NW			Orig Sa DB ID: 9L12WF10					
URANIUM	3.83E+01			2.0E+00	8.45E-02	ug/L		105.66%	3.62E+01	6/15/10 02:43 p	0.0248	?
	7.05E-01								2.1E-01		ML	KPAW3

Number of Results: 1

Comments:

RER - Replicate Error Ratio = (S-D)/[sqrt(sq(TPUs)+sq(TPUd))] as defined by ICPT BOA

Bias - (Result/Expected)-1 as defined by ANSI N13.30.

TestAmerica
rptSTLRchMs
V5.2.5 A2002

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F0E250568

INTER-COMPANY LOG

COMMENTS:
Project Manager:
Project: Bridgeton Landfill
Report Type: B Standard Report
Client: 398258 - Herst & Associates, Inc

Date Received: 2010-06-26
Analytical Due Date: 2010-06-14
Report Due Date: 2010-06-18

WORK LOCATION: *10* ***TestAmerica Richland***

SMP#: 1 CLIENT ID: OUTFALL 008 DATE SAMPLED: 20100525 MATRIX: I WATER

SAMPLE COMMENTS:

METHOD: TE NONE Ra-226 by ASC-7 Ba-133 by NaI & Ra-226 by Alpha Scint 7 day ingrow
EXTRACTION: BU Ra-226/228 Prp/Sep RA001 QC TYPE: 01 STANDARD TEST SET
WORKORDER L12WF1AC METAL: XX

METHOD: TA NONE Gamma by GER Gamma by HPGE
EXTRACTION: AW Gamma Prp GAM001 QC TYPE: 01 STANDARD TEST SET
WORKORDER L12WF1AA METAL: XX

METHOD: S7 NONE Alpha by GPC-Am Gross Alpha by GPC using Am-241 curve
EXTRACTION: AZ Gross Alpha Prp GPC001 QC TYPE: 01 STANDARD TEST SET
WORKORDER L12WF1AG METAL: XX

METHOD: S8 NONE Beta by GPC-Sr/Y Gross Beta by GPC using Sr/Y-90 curve
EXTRACTION: BC Gross Beta Prp GPC001 QC TYPE: 01 STANDARD TEST SET
WORKORDER L12WF1AF METAL: XX

METHOD: TF NONE Ra-228 by GPC Radium-228 by GPC
EXTRACTION: BU Ra-226/228 Prp/Sep RA001 QC TYPE: 01 STANDARD TEST SET
WORKORDER L12WF1AD METAL: XX

METHOD: SS NONE UNat by KPA Total Uranium by KPA
EXTRACTION: DH UNat_Laser Prp KPA001 QC TYPE: 01 STANDARD TEST SET
WORKORDER L12WF1AE METAL: XX

The sample(s) listed on this form are being sent to your location for the specified analysis. If you have any questions, please contact the Project Manager listed above. PLEASE RETURN THE ORIGINAL SIGNED FORM WITH THE REPORT AT THE COMPLETION OF ANALYSIS.

Thank You

TA- St. Louis
Sample Receiving

RELINQUISHED BY: _____ DATE: 5.25.10 1700

RECEIVED FOR LAB BY: _____ DATE: 5-26-10 @ 10AM

F0E250568

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JUL 27 2010
DIVISION OF
ENVIRONMENTAL COMPLIANCE

MSD 024313

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client: Allied Waste c/o Hurst + Associates
Address: 4630 S. Hwy 94 N. Outer Rd
City: St. Charles | State: MO | Zip Code: 63304
Project Name and Location (State): Bridgeton 2010 Leachate
Contract/Purchase Order/Quote No.: —

Project Manager: Ward Hurst
Telephone Number (Area Code)/Fax Number: 636-939-9111 / 636-939-9257
Site Contact: Dave Vealinder | Lab Contact: Kay Clay
Carrier/Waybill Number: —

Date: 5-25-10
Lab Number: —
Chain of Custody Number: 144545
Page 1 of 1

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Air	Aqueous	Sludge	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Ra 226	Ra 228	Uranium	Gross Alpha	Gross Beta	Gross Gamma						Special Instructions/ Conditions of Receipt
Outfall 008	5/24-25/10	1125 1540 0745 1125		X					2				X	X	X	X	X	X						2x4LP

Analysis (Attach list if more space is needed)

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	5/25/10	12:15	1. Received By: [signature]	5-25-10	12 15
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

RECEIVED JUL 2 2010 DIVISION OF ENVIRONMENTAL COMPLIANCE

MSD 024314

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F0E250568

CONDITION UPON RECEIPT FORM

Client: ALLIED WASTE

Quote No: 49794

COC/RFA No: 144545

379

Initiated By: NVO Date: Time: 1215

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: Multiple Packages: Y N

Shipping # (s):*

1. N/A 2. 3. 4. 5. 6. 7. 8. 9. 10.

Sample Temperature (s):**

1. 4C 2. 3. 4. 5. 6. 7. 8. 9. 10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y N	Are there custody seals present on the cooler?	8.	Y N	Are there custody seals present on bottles?
2.	Y N N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N N/A	Do custody seals on bottles appear to be tampered with?
3.	Y N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	Y N	Sample received with Chain of Custody?	11.	Y N	Sample received in proper containers?
5.	Y N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y N	Was sample received broken?	13.	Y N N/A	Was Internal COC/Workshare received?
7.	Y N	Is sample volume sufficient for analysis?	14.	Y N N/A	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

log under protocol "F".

Corrective Action:

☐ Client Contact Name: Informed by:

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: If released, notify:

Project Management Review: Date: 06-01-10

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

ADMIN-0004, REVISED 10/21/08 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

RECEIVED

JUL 27 2010

DIVISION OF ENVIRONMENTAL COMPLIANCE

Brandon Killion

From: Meibaum, Randy [RMeibaum@republicservices.com]
Sent: Friday, July 02, 2010 2:50 PM
To: mbrown@stlmsd.com; Brandon Killion
Cc: Vasbinder, David
Subject: 4337 2010 June Out Fall.xls

Here is the leachate outfall report for June 2010 at Bridgeton Landfill.

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	2/1/2010	8,580,591	276,793	1,147,137.83	11,471.38
February	3/2/2010	9,141,652	294,892	1,222,145.99	12,221.46
March	3/31/2010	9,986,820	322,155	1,335,136.36	13,351.36
April	5/3/2010	9,049,114	291,907	1,209,774.60	12,097.75
May	5/28/2010	6,628,277	213,815	886,123.29	8,861.33
June	7/2/2010	6,471,799	208,768	865,213.77	8,652.14
July					
August					
September					
October					
November					
December					

RECEIVED
JUL 27 2010
DIVISION OF
ENVIRONMENTAL COMPLIANCE

SR

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL FACILITY REINSPECTION REPORT

Company: Bridgeton Landfill LLC Account #: 0511559802
Premise Address: 13570 St Charles Rk Rd Zip Code: 63044
MSD Classes: SIU ☒ CIU ☐ Surch ☒ Potential Toxic Waste ☒ Non-Toxic Proc Waste ☐
No Process Flow ☐ Multi-User ☐ Special Handling/Billing ☒
Company Representative: Dave Vasbinder
Title: EHS Manager Phone#: 314.739.1919
Inspector: T. Boehm
Others Present: None
Inspection Date: 5/10/10 Time: From 09:00 am To 11:00 am (Last Insp. 5/18/09)

NOTE: ALL ITEMS ARE TO BE COMPLETED BASED ON EVENTS SINCE LAST INSPECTION. ANSWERS ARE BASED ON INFORMATION OBTAINED OR PROVIDED BY COMPANY DURING INSPECTION, AS WELL AS INFORMATION IN FILE.

***** DATABASE ALSO UPDATED WITH APPROPRIATE CHANGES - see attached database reports *****

1. A. ARE THERE ADDITIONAL NON-STORMWATER ACCOUNT NUMBERS? Yes☐ No☒
   List them, note any changes: _____
   B. Did all acct no's have water usage on PIMS? Yes☒ No☐
   C. If no to B, explain: _____

2. PROCESSES & CLEANUP/WASHDOWN:

	Cont/ Batch		Water Used?	Frequency of discharge	Sample pt.
Closed sanitary landfill operations- leachate discharge through on site vault to Westlink Pump Station	Cont		Yes	Daily, Precipitation dependent	008,007> san sewer
Trash transfer station washdown weekly	Batch		Yes	Quarterly	008,007> san sewer
	(None)		N/A		
	(None)		N/A		
	(None)		N/A		
	(None)		N/A		

3. PRETREATMENT (other than grease traps) - describe:

	Sample pt.
Equalization, course screening, aeration	008,007

4. DOES COMPANY HAVE ANY GREASE TRAPS? Yes☐ No☒
If yes: A. List sample points: _____
B. What is the frequency for cleaning & maintenance? _____
C. Are enzymes (not bacteria) used in traps? Yes☐ No☐
D. If yes to C, was co. told to stop or switch to approved bacteria? Yes☐ No☐
E. Was co. informed that MSD performs separate grease trap inspections? Yes☐ No☐

5. HAS COMPANY CONSTRUCTED NEW BLDGS/ADDITIONS WITH SEWERS SINCE LAST INSP? Yes☐ No☒
If yes: A. Ask company: Did they notify MSD's Plan Review group? Unknown☐ Yes☐ No☐
B. If no or unknown, has inspector notified Plan Review group? Yes☐ No☐
C. Comments: They have closed their maintenance garage on site; they send the vehicles next door to the Waste Management garage;

6. HAS COMPANY BEGUN DISCHARGING ANY NEW POLLUTANTS SINCE THE LAST INSP? Yes☐ No☒
If yes: A. List pollutants & process: _____
B. Will MSD STP exceed existing NPDES discharge limit(s)? Yes☐ No☐
C. Will MSD STP's discharge exceed 0.1 mg/l for any new pollutant? Yes☐ No☐
(MSD must notify MDNR if B or C is yes and discharge will continue.)
D. Comments: _____

7. ARE THERE ANY FEDERALLY REGULATED (40 CFR 405-471) OPERATIONS? Yes☐ No☒

If yes: A. List reg. & describe (including any discharge):

_____

8. DOES CATEGORICAL WASTEWATER COMBINE WITH NON-CAT. WW PRIOR TO SAMPLING? Yes☐ No☒

If yes: A. At which points? _____

B. Current applied factor: _____ Is it correct? Yes☐ No☐

C. If no, list correct factor/explain? _____

9. IS ANY WASTEWATER SUBJECT TO PRODUCTION OR MASS BASED STANDARDS? Yes☐ No☒

If yes: A. At which points? _____

B. Since calculation of the current limits, has the long term avg production rate or discharge volume changed by 20% or more? Yes☐ No☐

C. If yes to B, explain: _____

10. ARE ANY RADIOACTIVE MATERIALS HANDLED? Yes☒ No☐

If yes: A. Describe operations & disposal: 2 radiation waste cells are present in the landfill but are not lined, no leachate is collected from these cells; see comments;

B. Does company have MSD authorization for disposal to sewer? NA☐ Yes☒ No☐

C. Most recent authorization date: 10/15/06

D. Amount discharged in most recent complete calendar year: 33.47 mCi; they are limited to 160 mCi/year;

11. DOES PROCESS or P&E WASHDOWN WATER USE APPEAR EXCESSIVE? Yes☐ No☒

A. Explain how use was verified & any needed changes:
No excess usage noted during inspection;

12. BASED ON OBSERVATIONS DURING INSPECTION, DOES COMPANY APPEAR TO HAVE SOME WATER THAT IS NOT DISCHARGED TO SEWER? Yes☒ No☐

If yes: A. Describe: Evaporation from dust control;

B. Was "Return Factor Program" brochure given to company? Yes☒ No☐
(regardless of whether some water is not discharged to sewer)

13. HAS COMPANY EXCEEDED ORDINANCE DISCHARGE LIMITS SINCE LAST INSPECTION OR WITHIN THE LAST 12 MONTHS (if last insp <12 months ago)? Yes☐ No☒

If yes: A.

Pollutant	When	Sample Points	Is problem resolved? Yes/No	Describe
			N/A	See comments;
			N/A	
			N/A	
			N/A	
			N/A	

B. Comments: _____

14. HAS COMPANY EXCEEDED CATEGORICAL PRETREATMENT LIMITS SINCE THE LAST INSPECTION OR WITHIN THE LAST 12 MONTHS? NA☒ Yes☐ No☐

If yes: A.

Pollutant	When	Sample Points	Is problem resolved? Yes/No	Describe
			N/A	
			N/A	
			N/A	
			N/A	
			N/A	

B. Comments: _____

15. HAVE THERE BEEN ANY PROBLEM DISCHARGES SINCE LAST INSPECTION? Yes☐ No☒

If yes: A. Upsets? ☐ Bypasses of pretreatment facilities?☐
Spills? ☐ Slug discharges? ☐ Other? _____
B. Explain any marked: _____

16. COULD SPILLS OR LEAKS OF PROCESS TANKS, STORED WASTES, OR STORED CHEMICALS EASILY REACH SANITARY SEWERS OR STORM DRAINS? Yes☐ No☒

If yes: A. What needs to be done?
_____

If no: B. How are they controlled?
Diesel AST is contained; no other volumes of concern on site; large tract of dirt would absorb any spillage;

17. BASED ON OBSERVATIONS DURING INSPECTION, ARE THERE ANY AREAS WHERE COMPANY ACTIVITIES APPEAR TO IMPAIR STORMWATER RUNOFF? Yes☐ No☒

If yes: A. Describe: There is typcial landfill runoff that is regulated under an NPDES permit;
B. What needs to be done? _____
C. Was "Illicit Stormwater Discharges" brochure given to company? Yes☒ No☐
(regardless of whether there are any problem areas)

18. DOES COMPANY HAVE ANY SPILL CONTROL OR SLUG DISCHARGE CONTROL PLANS? Yes☒ No☐

If yes: A.

	Title	Last Update	Update needed? Explain if yes
1.	SPCCP	1/1/03	No
2.			N/A

B. Are any Plans needed (in addition to those listed in Part A)? Yes☐ No☒
(If yes, write company and request)

19. DOES COMPANY HAVE ANY MAINTENANCE SHOP PARTS WASHERS? Yes☐ No☒

If yes: A. Parts washer solvent name: _____
B. Priority pollutants (or "none"): _____
C. How is spent solvent disposed? _____
(Parts washer solvents are not included in database's priority pollutants list, nor monitored for unless conditions show potential discharges)

20. ARE ANY ORGANICS OR SOLVENTS USED (OTHER THAN IN PARTS WASHERS)? Yes☒ No☐

If yes: A.

Solvent name/ components	Used for?	413/433/469 Process?	How disposed?	Priority Pollutant?
Diesel	Fuel	Yes☐ No☒	Burned	Yes☒ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐

21. DOES COMPANY HAVE A 413/433/469 SOLVENT MANAGEMENT PLAN? Yes☐ No☒

If yes: A. Is it part of a Spill/Slug Control Plan listed above? Yes[1.☐ 2.☐] No☐
B. If no to A, date of last update for SMP: _____
C. Is there a copy of the Spill/Slug Plan or SMP in the files? Yes☐ No☐
D. Does SMP address all 413/433/469 solvents? Yes☐ No☐
(If no to C or D, write company and require submittal and/or update)

22. ARE EMERGENCY NOTIFICATION PROCEDURES POSTED THAT INCLUDE MSD CONTACTS? Yes☒ No☐
A. Was company provided notification cards & told to post where emergency response personnel can locate them? Yes☒ No☐
(Must post if co. generates process wastewater or stores chemicals of concern)

23. IS COMPANY REQUIRED TO SELF-MONITOR ANY OF THEIR DISCHARGES? Yes☒ No☐

If yes: A. Is requirement contained in permit ☒ or other document ☐.

B. If other document, date & description: _____

C. How frequently is sampling required? Quarterly

D. How frequently are reports required? Quarterly

E. Have reports been on-time, complete & signed by proper person? Yes☒ No☐

F. If no, explain: _____

24. DOES COMPANY SELF-MONITOR ITS WASTEWATER DISCHARGE? Yes☒ No☐

If yes: A. Is the self-monitoring required by MSD? Yes☒ No☐

B. Are representative grab/comp samples collected? Yes☒ No☐

C. Does sample collection time period match company's production shifts (is it representative)? Yes☒ No☐

D. Are EPA-approved 40 CFR 136 wastewater test methods used? Yes☒ No☐

E. If no to B, C, or D, explain needed changes: _____

25. DOES CO. CONTINUOUSLY MONITOR AT SAMPLE POINT AND KEEP A PERMANENT RECORD FOR: pH ☐, TEMP ☐, LEL ☐? Yes☒ No☐

If yes: A. At which SPs? They monitor for LEL at their leachate treatment tank; it is collected and sent to their flare but contact stated it never approaches the LEL;

B. Does company submit quarterly summaries? Yes☐ No☒

C. If no, explain: Permit does not require it;

26. DOES MSD SPLIT SAMPLES WITH THE COMPANY? Yes☐ No☒

If yes: A. Is company having the samples analyzed Yes☐ No☐

B. How does company insure proper preservation, holding times & analytical methods? _____

C. Has company submitted results of all split sample analyses since the last insp? Yes☐ No☐

D. Have results been submitted within 28 days of the collection's calendar quarter? Yes☐ No☐

E. If no to C, or D, explain: _____

F. Does company still want to split samples? Yes☐ No☐

G. Comments: _____

27. IS COMPANY UNDER ANY ENVIRONMENTAL ENFORCEMENT ORDERS OR REQUIREMENTS TO SUBMIT COMPLIANCE SCHEDULE REPORTS? Yes☐ No☒

If yes: A. Type and date: _____

B. Have the reports & actions been on-time & complete? Yes☐ No☐

C. If no, explain: _____

28. ASK COMPANY: IS CO. IN COMPLIANCE W/APPLICABLE NESHAP REGS FOR WW DISCHARGES? Yes☒ No☐

[Some MDNR-issued Title V air permits for specific processes allow pre-approved WW discharge.] [City/County-issued air permits are not NESHAP permits.]

If no: A. Describe: _____

B. Was MDNR Air Pollution Control informed? (must be done) Yes☐ No☐

29. DOES COMPANY RETAIN ALL WASTEWATER RECORDS FOR AT LEAST 5 YEARS? Yes☒ No☐

If no: A. How long does company retain records? _____

B. Was company told to retain for at least 5 years, per ordinance? Yes☐ No☐

C. Where are they kept? In contact's office;

30. DO MSD CLASSIFICATIONS NEED TO BE REVISED? Yes☐ No☒

If yes: A. Indicate correct classifications:

SIU ☐ CIU ☐ Surch. ☐ Potential Toxic Waste ☐ Non-Toxic Proc Waste ☐

No Process Discharge ☐ Multi-User ☐ Special Handling/Billing ☐

B. Explain changes: _____

31. SAMPLE POINTS

						DJ(y/n)
SP #	008	Fed.Reg.		Components:	Leachate, P+E washdown of transfer station	No
SP #	007	Fed.Reg.		Components:	Same as 008	No
SP #		Fed.Reg.		Components:		N/A
SP #		Fed.Reg.		Components:		N/A
SP #		Fed.Reg.		Components:		N/A

32. ARE ANY SAMPLE POINTS TRAPPED VENTS? Yes☐ No☒
If yes: A. List SPs: _____
B. Was co. informed that T-vents are preferred, and told why? Yes☐ No☐

33. ARE DISCHARGES AT ANY SPs SMALL/IRREGULAR ENOUGH TO ALLOW GRAB SAMPLES? Yes☐ No☒
If yes: A. List SPs and reasons: _____

34. ARE THERE ANY UNSAMPLED DISCHARGES? (list each lateral separately) Yes☒ No☐

Dummy SP #		Components:	See comments
Dummy SP #		Components:	

35. DO ANY SAMPLE POINTS (including Unsampled/Dummy SPs) RECEIVE STORMWATER? Yes☒ No☐
If yes: A. List Sample Points: Yes, indirectly through leachate collected under the landfill;

36. WERE ALL SAMPLE POINTS (except Dummy SPs) OPENED & INSPECTED? No SPs☐ Yes☐ No☒
A. If any SPs cannot be located or opened, explain: I did not have a key for 007; 008 was in good order;
B. If any SP descript's need to be changed, explain: _____
C. Was ANY grease or other problem/debris observed in any SP? Yes☐ No☒
D. If yes to C, list SPs & describe: SP is a valve on the side of a large tank;
E. If yes to C, was company directed to take corrective actions? Yes☐ No☐

37. REVIEW THE SAMPLE POINT MAP! Last map revision date: 01/27/09
A. Is the map correct and accurate in all its details? Yes☒ No☐
B If no, what changes are needed: _____

38. DO INSTRUCTIONS FOR "Contact Prior to Sampling" OR FIELD VISIT "Special Instructions" NEED REVISION? Yes☐ No☒
If yes: A. List needed changes: _____

USE THIS SPACE FOR ANY OTHER COMMENTS/OBSERVATIONS PERTINENT TO YOUR INSPECTION OF THIS SITE.
- They began covering the radioactive waste cells but new management at MoDNR does not agree with the old plan;
- Others that rent space at this site use holding tanks to collect waste; not considered multi-oc because the tenants wastewater does not discharge to our system with that from the landfill;
- Hexachlorbutadiene and Hexachlorcyclopentadiene show up on PIMS as violation for MSD sampling on Results>Limit Comp screen; reported as a 'less than' result, these were not considered violations because the limits are set in PIMS as 'Alert Only';
- The date used for in Q.10.C (10/15/06) is the date of the Permit modification when radionuclides were added to Sample Point Monitoring Requirements;

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL DATA SHEET - FACILITY INFORMATION

INDUSTRY NAME **BRIDGETON LANDFILL LLC**
PRIMARY MSD ACCOUNT NO. **0511559802**

Premise Address 13570 St. Charles Rock Road
Bridgeton MO. 63044

INDUSTRIAL USER CLASSIFICATIONS

03/06/1997	SIU
05/17/2007	SCH
03/06/1997	PTW
01/19/2006	SPC

WUNNENBERG INFO.

Base Map 10O3
Wun: St. Louis City & Co.
Grid: W 09 Page 7

SIU CRITERIA

PR25 Process Disch => 25,000 GPD

ENERAL INFORMATION

Office Mailing Address
13570 St. Charles Rock Road
Bridgeton, MO. 63044

Billing Address
13570 St. Charles Rock Road
Bridgeton, MO. 63044

INSPECTION INFORMATION

Next Due	Insp Rslt	
05/10/2010	RIN	Tom Boehm

PERMIT INFORMATION

Issue Date: 12/01/2005
Expire Date: 11/30/2010
Extended Date: 10/14/2006
Writer Fabian Grabski
Issue Date: 12/01/2005
Expire Date: 11/30/2010
Extended Date: 09/17/2007
Writer Fabian Grabski
Issue Date: 09/18/2007
Expire Date: 11/30/2010
Extended Date:
Writer Scott Rehmer
Issue Date: 12/01/2010
Expire Date: 11/30/2015
Extended Date:
Writer Mark A. Montague

IUQ INFORMATION

IUQ Recvd Date: 06/12/2000
Reviewer: Fabian Grabski
IUQ Recvd Date: 06/06/2005
Reviewer: Martin Blecha
IUQ Recvd Date: 04/27/2010
Reviewer: Tom Boehm

CONTACTS

BILL	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext. 4464
FLD1	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext. 4464
	David Vasbinder	Environmental Manager	CELL	(314) 249-9404 Ext.
FLD2	Randy Meibaum	Operations Manager	OFF	(314) 739-1919 Ext. 101
	Randy Meibaum	Operations Manager	CELL	(314) 393-2613 Ext.
OFF1	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext. 4464
	David Vasbinder	Environmental Manager	CELL	(314) 249-9404 Ext.
OFF2	Randy Meibaum	Operations Manager	OFF	(314) 739-1919 Ext.
	Randy Meibaum	Operations Manager	CELL	(314) 393-2613 Ext.

PERATIONAL INFORMATION

Work Days: 5

				S	M	T	W	T	F	S
1	2	06:00AM	10.0	N	Y	Y	Y	Y	Y	N

Total Emp: 2 **Hrs:** 10.0

OTHER AGENCIES INFORMATION

11/28/1996	MDNR - Hazardous Waste Program	00925
06/29/1997	MDNR - Water Pollution Control Program	MO-0112771
06/30/1997	EPA - Hazardous Waste Program	MO-D980741805
09/28/2005	MSD - Billing Account Number	00039145

ON-SEWERED WASTE

On-Site Storage **On-Site Disposal** **Off-Site Disposal**

AW MATERIALS

EFF DATE	MATERIAL_DESCRIPTION	QUANTITY	UNIT

SIC INFORMATION

SIC	DESCRIPTION
4953	Refuse Systems

PRODUCTS

EFF DATE	DESCRIPTION	UNIT	AVG_PROD	MAX_PROD
05/07/2004	Closed lanfill			

eport No. PIMS012A 06/17/2010 10:52:35 am
ata Date & Time: 06/17/2010 10:52:35 am

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL DATA SHEET - FACILITY INFORMATION

INDUSTRY NAME **BRIDGETON LANDFILL LLC**
PRIMARY MSD ACCOUNT NO. **0511559802**

Premise Address 13570 St. Charles Rock Road
Bridgeton MO. 63044

SEWER ACCOUNTS

Sewer Accounts
0511559802

WATER CONSUMPTION AND WASTEWATER DISCHARGE

Start Date = 01/01/2009 12:00:00AM **End Date =** 12/31/2010 12:59:59PM **Wdays** **Cdays**

Acct. No.			Consumption					Discharge	
0511559802			**CCF's**	**Gallons**				**Gal/ Wday**	**Gal/ Cday**
0511559802	08/08/2007	04/13/2009	216	216	A	439	615	615	
0511559802	04/14/2009	05/12/2009	182	398		21	29	644	
0511559802	05/13/2009	06/10/2009	168	566		21	29	673	
0511559802	06/11/2009	07/13/2009	217	783		24	33	706	
0511559802	07/14/2009	08/12/2009	157	940		21	30	736	
0511559802	08/13/2009	09/11/2009	305	1,245		21	30	766	
0511559802	09/12/2009	10/12/2009	171	1,416		22	31	797	
0511559802	10/13/2009	11/11/2009	178	1,594		21	30	827	
0511559802	11/12/2009	12/10/2009	281	1,875		21	29	856	
0511559802	12/11/2009	01/13/2010	210	2,085		24	34	890	
0511559802	01/14/2010	02/10/2010	174	2,259		20	28	918	
0511559802	02/11/2010	03/10/2010	189	2,448		20	28	946	
RF 1.00	**Acct. Total**		2,448	1,831,231		675	946	2,713	1,936
	Facility Total		2,448						

CONNECTION and SAMPLE POINT INFORMATION

LATERAL NO.	**Lateral Type**	**DSMH**	**Treatment Area**	Missouri River
01	Sanitary Or Combined	10O3 014S	**Trunk Sewer**	Bonfils Pump Station

Description Leachate Pump Vault SW to MSD Westlink Pump Station

Sewer Route S to Westlink Pump Station # 811, S to Bonfils Trunk to FM East to POTW

SAMPLE POINT NO. 007 Ordinance **NPDES Outfall No.**

Description 14" pipe into Westlink Pump Station Wetwell, on S side

Discharge Components	**Process Description**	**Avg Flow**	**Unit**	**Max Flow**	**Unit**	**RUD**	**Effective Date**
Laundry Waste	Same waste that flows through SP008	215,969	GPD		GPD	D	4/28/10
Plant & Equipment Wash	Transfer station	2,000	GPM	2,000	GPM	D	4/28/10
	Total Flow Avg =	**217,969**		**Max =**	**2,000**		

SAMPLE POINT NO. 008 Ordinance **NPDES Outfall No.**

Description 1/2" flexible sampling hose 5' above grade off of an 8" discharge pipe on N side of AST

Discharge Components	**Process Description**	**Avg Flow**	**Unit**	**Max Flow**	**Unit**	**RUD**	**Effective Date**
Plant & Equipment Wash	Transfer Station	2,000	GPD	2,000	GPD	D	4/28/10
Laboratory Waste		215,696	GPD		GPD	D	4/28/10
	Total Flow Avg =	**217,696**		**Max =**	**2,000**		

PRETREATMENT TYPES

SP	EFF_DATE	TYPE	DESCRIPTION
007	08/09/2007	DC22	Equalization
007	08/09/2007	DC11	Coarse Screening
007	05/18/2009	DC1	Aeration
008	08/09/2007	DC22	Equalization
008	05/18/2009	DC1	Aeration
008	08/09/2007	DC11	Coarse Screening

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL DATA SHEET - FACILITY INFORMATION

INDUSTRY NAME **BRIDGETON LANDFILL LLC**
PRIMARY MSD ACCOUNT NO. **0511559802**

Premise Address 13570 St. Charles Rock Road
Bridgeton MO. 63044

PRIORITY POLLUTANTS

Pollutant Description	Status	Pollutant Description	Status	Pollutant Description	Status
Naphthalene	KP	Ethylbenzene	KP	Cyanide (Total)	SP
Asbestos (Fibrous)	SP	Antimony (Total)	SP	Silver (Total)	SP
Selenium (Total)	SP	Copper (Total)	KP	Cadmium (Total)	SP
Beryllium (Total)	SP	Zinc (Total)	KP	Thallium (Total)	SP
Nickel (Total)	KP	Mercury (Total)	SP	Lead (Total)	KP
Chromium (Total)	KP	Arsenic (Total)	KP	Toluene	SP
Chlorobenzene	KP				

EXTRA STRENGTH SURCHARGE INFORMATION

05/19/2009	BOD	79
05/19/2009	COD	760
05/19/2009	TSS	50

PIMS FACILITY CONTACTS

For Account Number Selecte **0511559802** **BRIDGETON LANDFILL LLC**

Located at 13570 St. Charles Rock Road
Bridgeton MO 63044

Address Type

Contact Type	Contact Name		Contact Title	Phone Type	Number	Ext.
Billing Address						
Billing Contact	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	4464
Office Mailing Address						
Office Contact - Primary	David	Vasbinder	Environmental Manager	CELL	(314)249-9404	
Office Contact - Primary	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	4464
Office Contact 1st Alt	Rick	Walker	Operations Manager	OFF	(314)739-1919	
Office Contact 2nd Alt	Randy	Meibaum	Enivironmental Tech	CELL	(314)393-2613	
Office Contact 2nd Alt	Randy	Meibaum	Enivironmental Tech	OFF	(314)739-1919	4465
Premise Address						
Field Contact - Primary	David	Vasbinder	Environmental Manager	CELL	(314)249-9404	
Field Contact - Primary	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	4464
Field Contact 1st Alt	Randy	Meibaum	Operations Manager	CELL	(314)393-2613	
Field Contact 1st Alt	Randy	Meibaum	Operations Manager	OFF	(314)739-1919	101

PIMS
REPORT OF FIELD SAMPLING REQUIREMENTS
BRIDGETON LANDFILL LLC

Account No Entered **0511559802**

SPN	PREMISE ADDRESS	CITY	ST	ZIP
	13570 St. Charles Rock Road	Bridgeton	MO	63044

)07 **Project Code:** **IM = IPD - Company - MSD**

Pollutant Group	Poll Code	Pollutant Description	Frequency	Sample Type	End Date
	T205000	Ammonia (as N)	Once/3 mo	Grab	06/30/2010
	T208000	Biochemical Oxygen Demand (5 Day)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T213000	Chemical Oxygen Demand	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T234000	Oil and Grease (Total)	Once/3 mo	Grab	06/30/2010
	T237000	pH	Once/3 mo	Grab	06/30/2010
	T247000	Temperature	Once/3 mo	Grab	06/30/2010
	T256000	Total Suspended Solids	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T257000	Total Phenols	Once/3 mo	Grab	06/30/2010
	T304000	Antimony (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T306000	Arsenic (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T317000	Beryllium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T327000	Cadmium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T335000	Chromium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T339000	Copper (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T340000	Cyanide Amenable to Chlorination	Once/3 mo	Grab	06/30/2010
	T368000	Lead (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T370000	Mercury (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T377000	Nickel (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T391000	Selenium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T393000	Silver (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T396000	Thallium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
	T403000	Zinc (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
'henolic Organics - Acids	T991000	Phenolic Organics - Acids	Once/3 mo	Comp-Time 04 Hrs	06/30/2010
'CBs	T992000	PCBs	Once/year	Comp-Time 04 Hrs	03/31/2011
;emi-Volatile Organics - Base/Neutrals	T994000	Semi-Volatile Organics - Base/Neutrals	Once/year	Comp-Time 04 Hrs	03/31/2011
/olatile Organics	T996000	Volatile Organics	Once/year	Grab	03/31/2011

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mam
6/21/2010

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

April 19, 2010

Dear Mr. Rehmer:

First Quarter 2010 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-1

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the First Quarter 2010 leachate sampling and analysis report for the Bridgeton Landfill. On February 24, 2010 and February 25, 2010, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-1. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the First Quarter 2010 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for January, February, and March 2010.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Brandon Killion
Staff Environmental Scientist

for Ward E. Herst, R.G.
Managing Partner

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

6/21/2010
MMM

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: 0511559802-1 Effective Date: 9/18/2007 Expiration Date: 11/30/2010

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ■(JAN-MAR) ☐(APR-JUNE) ☐(JULY-SEPT) ☐(OCT-DEC)

Samples Collected By: **Brandon Killion & Leslie Keuss**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc.**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨			008					
DATES ON WHICH SAMPLES WERE COLLECTED ⇨			2/24/2010 and 2/25/2010					
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨			1130, 1639, 0740, 1130					
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW	***	E	395,487					GPD
Biochemical Oxygen Demand	***		210					mg/L
Chemical Oxygen Demand	***		790					mg/L
Oil and Grease	200		ND					mg/L
pH Acidic (<7)	5.5		6.66					SU
pH Basic (≥7)	11.5							SU
Temperature	60		20.4					°C
Total Suspended Solids	***		21					mg/L
Ammonia (as N)	***		240					mg/L
Arsenic (Total)	0.4		NR					mg/L
Cadmium (Total)	0.7		NR					mg/L
Chromium (Total)	5.0		NR					mg/L
Copper (Total)	2.7		0.056					mg/L
Lead (Total)	0.4		NR					mg/L
Mercury (Total)	0.01		NR					mg/L
Nickel (Total)	2.3		0.021					mg/L
Zinc (Total)	3.0		0.068					mg/L
Total Toxic Organics	5.52		NR					mg/L
Gross Alpha	***		U					pCi/L
Gross Beta	***		56.3 ± 9.4					pCi/L
Gross Gamma (as Cesium-137)	***		U					pCi/L
Radium – 226	10		3.60 ± 0.53					pCi/L
Radium – 228	30		1.26 ± 0.46					pCi/L
Uranium (Total)	***		9.8 ± 1.3					pCi/L

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Notes:
ND = Non-Detect
NR = Not required during this quarterly event
U = Result is less than sample detection limit

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS**.

NONE

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below: 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. Print or type name of signing official: **David Vasbinder** Title: **Environmental Manager** Telephone: **314-739-5099 x 4464** Signature: Date: 4/15/10

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: [X] (Jan-Mar) [ ] (Apr-Jun) [ ] (July-Sept) [ ] (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	Not Applicable – Constituent Not Detected
Gross Beta	5.90×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	3.78×10^8
Radium - 228	1.32×10^8
	10^{-2} pCi = Ci
Total Activity Discharged :	6.41×10^9

= 6.41 mCi

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

[X] DV. I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager

Telephone: 314-739-5099 ext 4464

Signature: [signature]

Date: 4/15/10

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.A.2 of the Bridgeton Landfill MSD Permit (Permit 05115598-02), each quarterly discharge report shall specify the activity discharged to the sewer system by permitted radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the First Quarter 2010 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\begin{matrix}\textit{Discharged}\\ \textit{Activity}\end{matrix} = \begin{matrix}\textit{Activity}\\ \textit{Concentration}\end{matrix} \times \begin{matrix}\textit{Discharged}\\ \textit{Volume}\end{matrix}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the First Quarter 2010 monitoring period.

Constituent	Result	Units
Gross Alpha	U	pCi/L
Gross Beta	56.3 ± 9.4	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	3.60 ± 0.53	pCi/L
Radium – 228	1.26 ± 0.46	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the First Quarter 2010 monitoring period:

- January 2010: 8,580,591 gallons
- February 2010: 9,141,652 gallons
- March 2010: 9,986,820 gallons

Summation of the monthly volumes provides the total volume discharged during the First Quarter 2010 period:

$$8{,}580{,}591\ gal + 9{,}141{,}652\ gal + 9{,}986{,}820\ gal = 27{,}709{,}063\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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St. Charles, Missouri 63304

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Fax (636) 939-9757

$$27{,}709{,}063\ gal \times \frac{3.785\ L}{gal} = 104{,}878{,}803\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Beta, multiply the activity concentration by the discharged volume:

$$\frac{56.3\ pCi}{L} \times 104{,}878{,}803\ L = 5.90 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{3.60\ pCi}{L} \times 104{,}878{,}803\ L = 3.78 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{1.26\ pCi}{L} \times 104{,}878{,}803\ L = 1.32 \times 10^{8}\ pCi$$

Summation of the three (3) results yields the total discharged activity for the First Quarter 2010 reporting period:

$$5.90 \times 10^{9}\ pCi + 3.78 \times 10^{8}\ pCi + 1.32 \times 10^{8}\ pCi = 6.41 \times 10^{9}\ pCi$$

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01060549

HERITAGE ENVIRONMENTAL SERVICES, LLC.

COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231

www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I - 59394

1 of 1

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MSD 024333

Customer name/number: Allied Waste Systems Submitter # 8945

Project Name: Bridgeton 1010 Leachate

Z Quote No: Z139326 (Given to you by your contact)

PO No. or Project/Activity ID:

PRINT HERITAGE TSR NAME:

CUSTOMER STATUS: New / Existing

If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Brandon Killian + Leslie Kenan

Analyses Requested (Note special detection limits or methods): Z139326

Send Report To:
Co: Horst + Associates
Add: 4630 S. Hwy 94 N. Outer Rd St. Charles, MO 63304
Attn: Ward Horst
Phone: (636) 939-9111
Fax: (636) 939-9757 Yes X
E-mail: lebdate@horstassociates.com

Sample Turn Around Time
Standard: ✓ Rush Date ___/___/___ Mo Day Yr
(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix) DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z139326	Remarks:	Lab use only Sample No.
2/24 25/10	1130 1639 / 0740 1130 AM PM	X		Outfall 008	L	5	X	Short Hold	A874489
2/25/10	1130 PM		X	Outfall 008	L	2	X		L

Relinquished by: (Signature) [signature] Date/Time 2/25/10 1830 Received by: (Signature) FedEx #9848 0963 8660

Relinquished by: (Signature) Date/Time / Received by: (Signature)

Relinquished by: (Signature) Date/Time / Received by: (Signature)

Received for lab by: (Signature) [signature] Date 2.26.10 Time 0835 Temp. - 6.2 °C ROI: Yes / No

Laboratory use only	Yes	No
Custody seals present/intact?	–	
Broken containers?		–
COC agree with sample labels?	–	
Correct containers for testing?	–	
Headspace issues acceptable?	–	
Holding time(s) acceptable?	–	
Preservative pH's acceptable?	–	
Was pH left unadjusted?	–	

Comments: L = Leachate 2/24/10: 1130, 1639 2/25/10: 0740, 1130

2/25/10 (1130) pH: 6.66su, Cond: 5130 ua Temp: 20.4 °C, Turb: 30.6 NTU

ORIGINAL

HERITAGE

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	26-FEB-10		A874489
	Completed	**PO Number**	
	09-MAR-10	4337-10001-1	
	Printed	**Sampled**	
	09-MAR-10	25-FEB-10 11:30	

Report To

WARD HERST
HERST AND ASSOCIATES
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Bill To

DAVE VASBINDER
ALLIED WASTE SYSTEMS
13570 ST. CHARLES ROCK ROAD
BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER CODE: 8945
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: S. BOXUM Analysis Date: 26-FEB-10 14:10 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	210	2	mg/L

The dilution water D.O. depletion was > 0.2 mG/L.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: J. CROFFIE Analysis Date: 04-MAR-10 12:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	790	20	mg/L

1:2 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: B. NDABAMBI Analysis Date: 01-MAR-10 13:00 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	BDL	5.0	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: T. DRIGGERS Analysis Date: 05-MAR-10 08:00 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	250		mL
FINAL VOLUME	250		mL

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MSD 024334

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HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A874489 OUTFALL 008

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 05-MAR-10 08:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	240	5.0	mg/L

1:50 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: R. YOUNG Analysis Date: 01-MAR-10 14:15 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	21	1	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: P. MATAKA Analysis Date: 03-MAR-10 07:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 04-MAR-10 01:54 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	56	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 04-MAR-10 01:54 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	21	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 04-MAR-10 01:54 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	68	20	ug/L

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B, 19TH ED. NELAC:Y

Analysis Date: 25-FEB-10 Instrument: FIELD Test: G607.2.0

Parameter	Result	Det. Limit	Units
PH	6.66	0.1	Std. Units

FIELD TEMPERATURE SM 2550 B, 19TH ED. NELAC:N

Analysis Date: 25-FEB-10 Instrument: FIELD Test: G603.1.0

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MSD 024335

HERITAGE

HERITAGE ENVIRONMENTAL SERVICES, LLC **Sample ID: A874489 OUTFALL 008**

Parameter	Result	Det. Limit	Units
TEMPERATURE	20.4		Degrees C

FIELD SPECIFIC CONDUCTANCE EPA 120.1 NELAC:Y

Analysis Date: 25-FEB-10 Instrument: FIELD Test: G604.1.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	5130	1.0	umHOS/cm

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature -.2 C.
Sample chain of custody number 59394.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

IL ELAP / NELAP Accreditation # 100401 Indiana SDWA Lab Accred. No. C-49-01

Approved by: CHRISTINE SARKAN 09-MAR-10

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Herst & Associates, Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F0B250518-001
Work Order: LV3X8
Matrix: WATER

Date Collected: 02/25/10 1130
Date Received: 02/25/10 1200

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 0057102	Yld % 79
Radium 228	1.26		0.46	1.00	0.65	02/26/10	03/15/10
Gross Alpha/Beta EPA 900				pCi/L		Batch # 0062107	Yld %
Gross Alpha	10	U	10	3	16	03/03/10	03/09/10
Gross Beta	56.3		9.4	4.0	7.1	03/03/10	03/09/10
Total Uranium by KPA ASTM 5174-91				ug/L		Batch # 0067296	Yld %
Total Uranium	9.8		1.3	10.0	3.1	03/10/10	03/12/10
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 0057100	Yld % 92
Radium (226)	3.60		0.53	1.00	0.20	02/26/10	03/15/10
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 0057156	Yld %
Cesium 137	3.5	U	8.4	20.0	15	02/26/10	02/27/10

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

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F0B250518

Chain of Custody Record

Cur 282

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

F0B250518

TAL-4124 (1007)

Client: Allied Waste c/o Herst & Associates	Project Manager: Ward Herst	Date: 2-25-10	Chain of Custody Number: 143646
Address: 9630 S. Hwy 94 N. Outer Rd	Telephone Number (Area Code)/Fax Number: 636-939-9111 / 636-939-9757	Lab Number:	Page 1 of 1
City: St. Charles; State: MO; Zip Code: 63304	Site Contact: Dave Vaalinda; Lab Contact: Kay Clay		
Project Name and Location (State): Bridgeton 1010 Leachate	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Ra 226	Ra 228	Uranium	Gross Alpha	Gross Beta	Gross Gamma	Special Instructions/ Conditions of Receipt
Outfall 008	2/24-25/10	1130 1630 0040 1130		X				2					X	X	X	X	X	X	2X4LP

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	2/25/10	12:00	1. Received By: Angela B [signature]	2/25/10	12:00
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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TestAmerica St. Louis

2010

Bridgeton Landfill
Monthly Leachate Outfall Report

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	2/1/2010	8,580,591	276,793	1,147,137.83	11,471.38
February	3/2/2010	9,141,652	294,892	1,222,145.99	12,221.46
March	3/31/2010	9,986,820	225,381	934,066.84	9,340.67
April					
May					
June					
July					
August					
September					
October					
November					
December					

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March Monthly Precipitation 2.35 Inches

4/14/2010

SR

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mam
3/17/2010

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

January 26, 2010

Dear Mr. Rehmer:

Fourth Quarter 2009 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-1

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the Fourth Quarter 2009 leachate sampling and analysis report for the Bridgeton Landfill. On November 3, 2009 and November 4, 2009, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-1. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Fourth Quarter 2009 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for October, November, and December 2009.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Brandon Killion
Staff Environmental Scientist

For Ward E. Herst, R.G.
Managing Director

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: 0511559802-1 Effective Date: 9/18/2007 Expiration Date: 11/30/2010

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐(JAN-MAR) ☐(APR-JUNE) ☐(JULY-SEPT) ■(OCT-DEC)

Samples Collected By: **Brandon Killion & Neil Kostelecky**

Analyses Performed By: **Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc.**

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨		008						
DATES ON WHICH SAMPLES WERE COLLECTED ⇨		11/3/09 and 11/4/09						
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨		1115, 1515, 0810, 1115						
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW	***	E	337,977					GPD
Biochemical Oxygen Demand	***		170					mg/L
Chemical Oxygen Demand	***		870					mg/L
Oil and Grease	200		5.4					mg/L
pH Acidic (<7)	5.5		6.66					SU
pH Basic (≥7)	11.5							SU
Temperature	60		24.7					°C
Total Suspended Solids	***		24					mg/L
Ammonia (as N)	***		130					mg/L
Arsenic (Total)	0.4		NR					mg/L
Cadmium (Total)	0.7		NR					mg/L
Chromium (Total)	5.0		NR					mg/L
Copper (Total)	2.7		0.026					mg/L
Lead (Total)	0.4		NR					mg/L
Mercury (Total)	0.01		NR					mg/L
Nickel (Total)	2.3		0.025					mg/L
Zinc (Total)	3.0		0.024					mg/L
Total Toxic Organics	5.52		NR					mg/L
Gross Alpha	***		U					pCi/L
Gross Beta	***		73 ± 13					pCi/L
Gross Gamma (as Cesium-137)	***		U					pCi/L
Radium – 226	10		3.71 ± 0.50					pCi/L
Radium – 228	30		1.24 ± 0.53					pCi/L
Uranium (Total)	***		U					µg/L

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Notes:
ND = Non-Detect
NR = Not required during this quarterly event
U = Result is less than sample detection limit

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS.**

NONE

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below:
	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.
	Print or type name of signing official: **David Vasbinder**
	Title: **Environmental Manager** Telephone: **314-739-5099 x 4464**
	Signature: Date: 1/23/2010

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☐ (Apr-Jun) ☐ (July-Sept) ☒ (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	Not Applicable – Constituent Not Detected
Gross Beta	5.01×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	2.54×10^9
Radium - 228	8.52×10^9
Total Activity Discharged :	1.61×10^{10} pCi

= 16.1 mCi

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

DN ☒ I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager

Telephone: 314-739-5099 ext 4464

Signature: [signature]

Date: 1/23/2010

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.A.2 of the Bridgeton Landfill MSD Permit (Permit 05115598-02), each quarterly discharge report shall specify the activity discharged to the sewer system by permitted radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Fourth Quarter 2009 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\begin{matrix}\textit{Discharged}\\ \textit{Activity}\end{matrix} = \begin{matrix}\textit{Activity}\\ \textit{Concentration}\end{matrix} \times \begin{matrix}\textit{Discharged}\\ \textit{Volume}\end{matrix}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Fourth Quarter 2009 monitoring period.

Constituent	Result	Units
Gross Alpha	U	pCi/L
Gross Beta	73 ± 13	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	3.71 ± 0.50	pCi/L
Radium – 228	1.24 ± 0.53	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Fourth Quarter 2009 monitoring period:

- October 2009: 4,413,265 gallons
- November 2009: 6,048,000 gallons
- December 2009: 7,696,129 gallons

Summation of the monthly volumes provides the total volume discharged during the Fourth Quarter 2009 period:

$$4{,}413{,}265\ gal + 6{,}048{,}000\ gal + 7{,}696{,}129\ gal = 18{,}157{,}394\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304
Telephone (636) 939-9111
Fax (636) 939-9757

$$18{,}157{,}394\ gal \times \frac{3.785\ L}{gal} = 68{,}725{,}737\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Beta, multiply the activity concentration by the discharged volume:

$$\frac{73\ pCi}{L} \times 68{,}725{,}737\ L = 5.01 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{3.71\ pCi}{L} \times 68{,}725{,}737\ L = 2.54 \times 10^{9}\ pCi$$

Similarly, for Radium-228:

$$\frac{1.24\ pCi}{L} \times 68{,}725{,}737\ L = 8.52 \times 10^{9}\ pCi$$

Summation of the four (4) results yields the total discharged activity for the Fourth Quarter 2009 reporting period:

$$5.01 \times 10^{9}\ pCi + 2.54 \times 10^{9}\ pCi + 8.52 \times 10^{9}\ pCi = 1.61 \times 10^{10}\ pCi$$

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Quality Assurance Report Package # 59175

HERST AND ASSOCIATES

WARD HERST
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Project : MO-ALLIED-BRIDGETON LANDFILL

Sampled : 04-NOV-09

Sample Range : A864648

Approved by: CHRISTOPHER BOYLE - Project Manager

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 West Morris Street
Indianapolis, Indiana 46231
Phone: (317) 243-8304
Fax : (317) 486-5095

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01057618

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231
www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I - 77036

1 of 1

Customer name/number: Allied Waste Systems Submitter # 8945
Project Name: Bridgeton 4Q09 Leachate
Z Quote No: Z139877 (Given to you by your contact)
PO No. or Project/Activity ID: ——
PRINT HERITAGE TSR NAME: ——

CUSTOMER STATUS: New / Existing

If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Brandon Killion & Neil Kostelecky

Analyses Requested (Note special detection limits or methods)

Send Report To:
Co: Herst & Associates
Add: 4630 S. Hwy 94 N. Outer Rd
St. Charles, MO 63304
Attn: Ward Herst
Phone: (636) 939-9111
Fax: (636) 939-9757 Yes X
E-mail: labdata@herstassociates.com

Sample Turn Around Time
Standard: ✓ Rush Date ___/___/___ Mo Day Yr
(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z139877	Remarks:	Lab use only Sample No.
11/3-4/09	1115, 1515 AM 0810, 1115 PM	X		Outfall 008	L	4	X	Short Hold	A864648
11-4-09	1115 AM PM		X	Outfall 008	L	2	X		↓
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Brandon Killion	11/4/09 1445	FedEx #9848 0965 4231
Relinquished by: (Signature)	Date/Time /	Received by: (Signature)
Relinquished by: (Signature)	Date/Time /	Received by: (Signature)
Received for Lab by: (Signature)	Date 11-5-09 Time 8:20	Temp. 2.0 °C ROI: Yes / No

Laboratory use only	Yes	No
Custody seals present/intact?	✓	
Broken containers?		✓
COC agree with sample labels?	✓	
Correct containers for testing?	✓	
Headspace issues acceptable?	✓	
Holding time(s) acceptable?	✓	
Preservative pH's acceptable?	✓	
Was pH left unadjusted?	✓	

Comments: L = Leachate
11-3-09 1115, 1515
11-4-09 0810, 1115
11-4-09 (1115) pH: 6.66 SU, Cond: 3810 µs, Temp: 24.7°C, Turb: 15 NTU

ORIGINAL

MSD 024347

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	05-NOV-09		A864648
	Completed	**PO Number**	
	16-NOV-09	4337 (4Q) 09004-1	
	Printed	**Sampled**	
	17-NOV-09	04-NOV-09 11:15	

Report To

WARD HERST
HERST AND ASSOCIATES
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Bill To

ACCOUNTS PAYABLE
ALLIED WASTE SYSTEMS
12976 ST. CHARLES ROCK ROAD
BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER CODE: 8945
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: S. BOXUM Analysis Date: 06-NOV-09 11:20 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	170	2	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: J. CROFFIE Analysis Date: 13-NOV-09 09:45 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	870	20	mg/L

1:2 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: B. NDABAMBI Analysis Date: 12-NOV-09 17:00 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	5.4	5.0	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: S. BOXUM Analysis Date: 05-NOV-09 09:00 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	250		mL

The prep analyst decreased the initial weight/volume due to the matrix of the sample and/or a strong odor.

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Sample ID: A864648 OUTFALL 008

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 09-NOV-09 12:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	130	25	mg/L

1:50 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: R. YOUNG Analysis Date: 06-NOV-09 10:30 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	24	1	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: P. MATAKA Analysis Date: 13-NOV-09 06:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 14-NOV-09 00:38 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	26	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 14-NOV-09 00:38 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	25	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 14-NOV-09 00:38 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	24	20	ug/L

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B, 19TH ED. NELAC:Y

Analysis Date: 04-NOV-09 Instrument: FIELD Test: G607.2.0

Parameter	Result	Det. Limit	Units
PH	6.66	0.1	Std. Units

FIELD TEMPERATURE SM 2550 B, 19TH ED. NELAC:N

Analysis Date: 04-NOV-09 Instrument: FIELD Test: G603.1.0

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A864648 OUTFALL 008

Parameter	Result	Det. Limit	Units
TEMPERATURE	24.7		Degrees C

FIELD SPECIFIC CONDUCTANCE EPA 120.1 NELAC:Y

Analysis Date: 04-NOV-09 Instrument: FIELD Test: G604.1.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	3810	1.0	umHOS/cm

Sample Comments

Sample was received on ice at temperature 2 C.
Sample chain of custody number 77036.

This Certificate shall not be reproduced, except in full, without the written approval of the lab. The sample results relate only to the analytes of interest tested or to the sample as received by the lab. Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.

IL ELAP / NELAP Accreditation # 100401 Indiana SDWA Lab Accred. No. C-49-01

Approved by: CHRISTINE SARKAN 17-NOV-09

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Quality Assurance Report

59175

17-NOV-09

Service Location	Submitter
Heritage Environmental Services, LLC Commercial Laboratory Operations 7901 West Morris Street Indianapolis, IN 46231 (317) 243-8304	WARD HERST HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 ST. CHARLES, MO 63304

Sample ID	Client ID	Date/Time Sampled	Date Received	Date Complete
A864648	OUTFALL 008.....	04-Nov-09 11:15	05-Nov-09	16-Nov-09
	DESCRIPTION :	QUARTERLY LEACHATE		
	LOCATION :	BRIDGETON LANDFILL		
	:	830871		

Herst & Associates Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F9K040546-001
Work Order: LNT2F
Matrix: WATER

Date Collected: 11/04/09 1115
Date Received: 11/04/09 1410

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 9309145	Yld % 81
Radium 228	**1.24**		**0.53**	1.00	**0.79**	**11/05/09**	**11/20/09**
Gross Alpha/Beta EPA 900				pCi/L		Batch # 9316133	Yld %
Gross Alpha	8	U	10	3	16	11/12/09	11/15/09
Gross Beta	**73**		**13**	4	**12**	**11/12/09**	**11/15/09**
Total Uranium by KPA ASTM 5174-91				ug/L		Batch # 9317043	Yld %
Total Uranium	3.03	U	0.37	20.0	6.2	11/13/09	11/17/09
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 9309144	Yld % 100
Radium (226)	**3.71**		**0.50**	1.00	**0.18**	**11/05/09**	**11/20/09**
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 9309148	Yld %
Cesium 137	-0.06	U	5.8	20.0	11	11/05/09	11/15/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

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Lot# F9K040546

METHOD BLANK REPORT

Radiochemistry

Client Lot ID: F9K040546
Matrix: WATER

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC		Prep Date	Analysis Date	Lab Sample ID
Gamma Cs-137 & Hits by EPA 901.1 MOD			**pCi/L**	**Batch #**	**9309148**	**Yld %**			**F9K050000-148B**
Cesium 137	-0.05	U	8.0	20.0	15		11/05/09	11/16/09	
Radium 226 by EPA 903.0 MOD			**pCi/L**	**Batch #**	**9309144**	**Yld %**	**107**		**F9K050000-144B**
Radium (226)	0.16	U	0.13	1.00	0.19		11/05/09	11/20/09	
Radium 228 by GFPC EPA 904 MOD			**pCi/L**	**Batch #**	**9309145**	**Yld %**	**105**		**F9K050000-145B**
Radium 228	-0.32	U	0.33	1.00	0.59		11/05/09	11/20/09	
Gross Alpha/Beta EPA 900			**pCi/L**	**Batch #**	**9316133**	**Yld %**			**F9K120000-133B**
Gross Alpha	0.15	U	0.44	2.00	0.81		11/12/09	11/15/09	
Gross Beta	-0.64	U	0.44	4.00	0.90		11/12/09	11/15/09	
Total Uranium by KPA ASTM 5174-91			**ug/L**	**Batch #**	**9317043**	**Yld %**			**F9K130000-043B**
Total Uranium	**0.477**		**0.053**	1.00	**0.31**		**11/13/09**	**11/17/09**	

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined using instrument performance only
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

Lot# F9K040546

Chain of Custody Record

Cera 452 Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

F9K040546

TAL-4124 (1007)

Client: Allied Waste c/o Herst & Associates	Project Manager: Ward Herst	Date: 11-4-09	Chain of Custody Number: 127086
Address: 4630 S. Hwy 94 N. Outer Rd	Telephone Number (Area Code)/Fax Number: 636-939-9111 / 636-939-9757	Lab Number:	Page 1 of 1
City: St. Charles; State: MO; Zip Code: 63304	Site Contact: Dave Vasbinder; Lab Contact: Kay Clay		
Project Name and Location (State): Bridgeton 4009 Leachate	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Ra 226	Ra 228	Uranium	Gross Alpha	Gross Beta	Gross Gamma	Special Instructions/ Conditions of Receipt
Outfall 008	11/3-4/09	1115, 1515 0810, 1115		X					2				X	X	X	X	X	X	2X4LP

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	11-4-09		1. Received By: Angela Boon	11-4-09	14:10
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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TestAmerica St. Louis

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F9K040546

CONDITION UPON RECEIPT FORM

Client: Allied Waste
Quote No: 49794
COC/RFA No: 127086
Initiated By: AB
Date: 452 11-4-09
Time: 11-4-09 9:14:10

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*
1. _____ 6. _____
2. _____ 7. _____
3. _____ 8. _____
4. _____ 9. _____
5. _____ 10. _____

Sample Temperature (s):**
1. 4 6. _____
2. _____ 7. _____
3. _____ 8. _____
4. _____ 9. _____
5. _____ 10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y N	Are there custody seals present on the cooler?	8.	Y N	Are there custody seals present on bottles?
2.	Y N N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N N/A	Do custody seals on bottles appear to be tampered with?
3.	Y N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	Y N	Sample received with Chain of Custody?	11.	Y N	Sample received in proper containers?
5.	Y N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y N	Was sample received broken?	13.	Y N N/A	Was Internal COC/Workshare received?
7.	Y N	Is sample volume sufficient for analysis?	14.	Y N N/A	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:
- ☐ Client Contact Name: _____
- ☐ Sample(s) processed "as is"
- ☐ Sample(s) on hold until:

Informed by: _____
If released, notify: _____
Date: 11-6-09

Project Management Review: Jayne Pohl

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.
ADMIN-0004, REVISED 10/21/08 \\Slsvr01\QA\FORMS\ST-LOUIS\ADMIN\Admin004 rev11.doc

Lot# F9K040546

2009

Bridgeton Landfill LLC
Monthly Leachate Meter Reading

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet
January	1/30/2009	8,689,955	280,321	1,161,758.69	11,617.59
February	2/27/2009	6,349,530	204,824	848,867.65	8,488.68
March	3/31/2009	7,246,619	233,762	968,799.33	9,687.99
April	4/30/2009	6,832,630	220,407	913,453.21	9,134.53
May	6/1/2009	6,839,600	220,632	914,385.03	9,143.85
June	7/1/2009	6,634,714	214,023	886,993.85	8,869.94
July	7/31/2009	5,899,943	190,321	788,762.43	7,887.62
August	8/31/2009	6,293,606	203,020	841,391.18	8,413.91
September	9/30/2009	5,884,448	189,821	786,690.91	7,866.91
October	10/30/2009	4,413,265	142,363	590,008.69	5,900.09
November	11/30/2009	6,048,000	195,097	808,556.15	8,085.56
December	1/4/2010	7,696,129	248,262	1,028,894.25	10,288.94

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December Monthly Precipitation 4.25 Inches

1/19/2010

Metropolitan St. Louis Sewer District

Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

December 11, 2009

BRIDGETON LANDFILL LLC
David Vasbinder
13570 St. Charles Rock Road
Bridgeton, MO 63044

Dear Mr. Vasbinder:

As the owner of an Industrial Wastewater Discharge Permit from MSD, you are required to submit quarterly self-monitoring reports to MSD. As part of the reporting requirements, all permittees must complete general certification B on the self-monitoring report. Most permittees also must initial certain other general or special certifications on the report. Failure to complete the required certifications is a violation of the permit conditions.

The self-monitoring report forms currently contain all potential certifications, regardless of whether they apply to a particular permittee. Sometimes, the permittee will not initial the correct certifications. MSD realizes that it can be difficult for the permittee to correctly determine the applicable certifications that must be initialed. Therefore, to help eliminate confusion, we have developed a customized self-monitoring report form for you to use.

The attached self-monitoring report form contains only those certifications required by your Industrial Wastewater Discharge Permit. Please begin using this new form immediately.

Each certification on your customized report form should be initialed, or signed for general certification B. We realize that special certifications A and D sometimes do not have to be initialed for each report. However, it also is not inappropriate to initial them for each report.

Thank you for helping us to comply with federal and state regulations. If you have any questions, please contact me at 314.436.8717.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Douglas M. Mendoza, P.E.
Manager of Industrial Pretreatment

Enclosure: permit-customized self-monitoring report form

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PART I: IDENTIFYING INFORMATION

Company Name: BRIDGETON LANDFILL LLC

Permit No: 0511559802-1 Effective Date: 9/18/2007 Expiration Date: 11/30/2010

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐(JAN-MAR) ☐(APR-JUNE) ☐(JULY-SEPT) ☐(OCT-DEC)

Samples Collected By: _____

Analyses Performed By: _____

PART II: ANALYTICAL RESULTS OF SELF MONITORING

MSD SAMPLE POINT REFERENCE NUMBERS ⇨								
DATES ON WHICH SAMPLES WERE COLLECTED ⇨								
TIMES AT WHICH SAMPLES WERE COLLECTED ⇨								
PARAMETER	LIMIT	RECORD SAMPLE TYPES (G, C, M OR E) AND RESULTS BELOW (G=grab, C=composite, M=measured flow, E=estimated flow)						UNITS
FLOW								

You must complete and sign the certification statements on the second page.

PART III: SPECIAL CERTIFICATION STATEMENTS

Based on the special conditions contained in your discharge permit you may be required to certify the following. Please review your permit and **PLACE YOUR INITIALS ON THE LINES NEXT TO THE CERTIFICATIONS**.

NONE

PART IV: GENERAL CERTIFICATION STATEMENTS

B	DISCHARGE MONITORING REPORT CERTIFICATION
	All permittees must sign and complete the information below: 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. Print or type name of signing official: _____ Title: _____ Telephone: _____ Signature: _____ Date: _____

Metropolitan Saint Louis Sewer District
2350 Market Street
Saint Louis, Missouri 63103-2555

BRIDGETON LANDFILL LLC
13570 St. Charles Rock Road
Bridgeton, MO 63044

Attn: David Vasbinder
Environmental Manager

INDUSTRIAL WASTEWATER DISCHARGE PERMIT NUMBER 0511559802.

ANNUAL PERMIT FEE NOTICE

For permits in effect as of 10/01/2009.

Fee will be included on the **next regular monthly bill** from the Metropolitan St. Louis Sewer District.

Explanation of Charges

Fee for Pretreatment Program Discharge Permit covering the period October 1, 2009 through September 30, 2010 issued in accordance with the Metropolitan St. Louis District Ordinance #12413 for the location at **13570 St. Charles Rock Road.**

Base charge @ $150.00 per permit			$150.00
Volume charge @ $0.72 per average daily Ccf	342.81	Ccf(s)	$246.82
Sample Point Charge @ $100.00 per sample point	2	Point(s)	$200.00
		Total Fee Due:	**$596.82**

For inquiries about the Annual Permit Fee, please call 314-436-8756. For inquiries about payment of the fee, which will appear on your upcoming monthly bill, please call 1-866-281-5737.

THIS IS NOT A BILL

DO NOT PAY NOW

FEE WILL BE INCLUDED ON MONTHLY BILL

SR

HERST & ASSOCIATES, INC.®

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MAM
11/18/09

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

October 26, 2009

Dear Mr. Rehmer:

Third Quarter 2009 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-1

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the Third Quarter 2009 leachate sampling and analysis report for the Bridgeton Landfill. On August 5, 2009 and August 6, 2009, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-1. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Third Quarter 2009 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for July, August, and September 2009.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Brandon Killion
Staff Environmental Scientist

For Ward E. Herst, R.G.
Managing Director

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9137

Cc: *David Vasbinder, Republic Services, Inc.*
John Haasis, St. Louis County Department of Health
Vickie Heberlie, Missouri Department of Natural Resources

Attachments: *Attachment 1 – Metropolitan St. Louis Sewer District Industrial User Self Monitoring Reports*
Attachment 2 – Calculation of Discharged Activity
Attachment 3 – Heritage Environmental Laboratories, LLC, Laboratory Analytical Report
Attachment 4 – TestAmerica, Inc. Laboratory Analytical Report
Attachment 5 – Monthly Leachate Discharge Volume Records Provided by Bridgeton Landfill

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☐ (Apr-Jun) ☒ (July-Sept) ☐ (Oct-Dec)

Samples Collected By: Brandon Killion and Bryan Sehie of Herst & Associates, Inc.

Analyses Performed By: Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc.

Part II: Analytical Results of Self Monitoring

MSD Sample Point Reference Numbers →		008						
Dates on which samples were collected →		8/5/2009 and 8/6/2009						
Times at which samples were collected →		1145, 1615, 0815, 1145						
Parameter	**Limit**	**Record Sample Types (G, C, M, or E) and Results Below G=grab, C=composite, M=measured flow, E=estimated flow**						**Units**
Flow	***	E	193,417					GPD
Biochemical Oxygen Demand	****	C	33					mg/L
Chemical Oxygen Demand	****	C	520					mg/L
Oil and Grease	200	G	ND < 5.0					mg/L
pH Acidic (<7)	5.5	G	6.58					SU
pH Basic (≥7)	11.5	G						SU
Temperature	60	G	27.2					°C
Total Suspended Solids	****	C	19					mg/L
Ammonia (as N)	*****	C	180					mg/L
Arsenic (Total)	0.4	C	NR					mg/L
Cadmium (Total)	0.7	C	NR					mg/L
Chromium (Total)	5.0	C	NR					mg/L
Copper (Total)	2.7	C	0.021					mg/L
Lead (Total)	0.4	C	NR					mg/L
Mercury (Total)	0.01	C	NR					mg/L
Nickel (Total)	2.3	C	0.024					mg/L
Zinc (Total)	3.0	C	0.030					mg/L
Total Toxic Organics	5.52	G	NR					mg/L
Gross Alpha	*****	C	18 ± 10					pCi/L
Gross Beta	*****	C	50.8 ± 9.7					pCi/L
Gross Gamma (as Cesium-137)	*****	C	U					pCi/L
Radium - 226	10	C	3.51 ± 0.42					pCi/L
Radium – 228	30	C	1.59 ± 0.37					pCi/L
Uranium (Total)	*****	C	U					µg/L

Notes:
ND = Non-Detect
NR = Not required during this quarterly event
U = Result is less than the sample detection limit

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Part III: Special Certification Statements

Based on the special conditions contained in your discharge permit you may be required to certify one of more of the following. Please review your permit and **place your initials in the boxes next to those certifications which are applicable to your facility**. If your permit contains no Special Conditions, then none of the certifications in **Part III** apply to you. **Go on to Part IV.**

A. If your permit special conditions waive monitoring at any sample point(s) specified in your permit, you are required to make the following certification:

☐ I certify, since the last discharge monitoring report, there has been no change in the character of the wastes discharged at sampling points _____.

B. If your permit special conditions waive monitoring at active connection points which are not specified as sample points in your permit, you are required to make the following certification:

☒ D.V. I certify, since the last discharge monitoring report, there has been no change in the character of wastes discharged at those active connection points which are not specified in my permit.

C. If your permit special conditions waive monitoring at inactive connection points, you are required to make the following certification:

☐ I certify, since the permit issue date, there has been no change in the status of connection points identified as inactive. These points remain inactive and no discharge occurred during the period covered by this report.

D. If your permit special conditions authorize grab sample collection in lieu of composite sampling at any sample point(s), you are required to make the following certification:

☐ I certify the grab sample results in this report accurately represent our average daily discharge at sample points(s) _____.

E. If your permit special conditions prohibit discharge of wastes which are subject to certain categorical pretreatment standards, you are required to make the following certification:

☐ I certify, since the last discharge monitoring report, there has been no discharge of wastes which are subject to pretreatment standards in 40 CFR _____.

F. Discharges subject to Pharmaceutical Categorical Standards (40 CFR 439) can be exempted from limitations and monitoring for Total Cyanide at the Pharmaceutical sample point(s) subjected to the following certification:

☐ I certify, since the last discharge monitoring report, cyanide has not been used or generated in any pharmaceutical manufacturing process subject to Categorical Standards in 40 CFR 439.

G. Discharges Subject to Categorical Standards for Electroplating (40 CFR 413), Metal Finishing (40 CFR 433) or Electrical & Electronic Components (40 CFR 469) can be exempted from TTO monitoring only at the Electroplating, Metal Finishing or Electrical & Electronic Components sample point(s) subject to the following certification:

☐ Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to MSD.

Part IV: Special Certification Statements

Initial the box for statement A if it applies to you. **Everyone must complete the information under statement B and sign this report.**

A. Discharges at sample points subject only to MSD Ordinance limits can be exempted from TTO monitoring subject to the following certification:

☐ In lieu of monitoring for TTO at sample point(s) _____, I certify that to the best of my knowledge and belief, no toxic organics have been used at this premise or discharged into the wastewaters since filing of the last discharge monitoring report.

B. **Discharge Monitoring Report Certification**

I certify under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system designated 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager Telephone: 314-739-5099 x 4464

Signature: [signature] Date: 10-14-09

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☐ (Apr-Jun) ☒ (July-Sept) ☐ (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	1.23×10^9
Gross Beta	3.48×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	2.41×10^8
Radium - 228	1.09×10^8
Total Activity Discharged :	5.06×10^9 pCi

= 5.06 mCi

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

☒ I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

D.V.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager

Telephone: 314-739-5099 ext 4464

Signature: D. V.

Date: 10-14-09

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.A.2 of the Bridgeton Landfill MSD Permit (Permit 05115598-02), each quarterly discharge report shall specify the activity discharged to the sewer system by permitted radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Third Quarter 2009 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\begin{matrix} \textit{Discharged} \\ \textit{Activity} \end{matrix} = \begin{matrix} \textit{Activity} \\ \textit{Concentration} \end{matrix} \times \begin{matrix} \textit{Discharged} \\ \textit{Volume} \end{matrix}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Third Quarter 2009 monitoring period.

Constituent	Result	Units
Gross Alpha	18 ± 10	pCi/L
Gross Beta	50.8 ± 9.7	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	3.51 ± 0.42	pCi/L
Radium – 228	1.59 ± 0.37	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Second Quarter 2009 monitoring period:

- July 2009: 5,899,943 gallons
- August 2009: 6,293,606 gallons
- September 2009: 5,884,448 gallons

Summation of the monthly volumes provides the total volume discharged during the Third Quarter 2009 period:

$$5{,}899{,}943\ gal + 6{,}293{,}606\ gal + 5{,}884{,}448\ gal = 18{,}077{,}997\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

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$$18{,}077{,}997\ gal \times \frac{3.785\ L}{gal} = 68{,}425{,}219\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Beta, multiply the activity concentration by the discharged volume:

$$\frac{50.8\ pCi}{L} \times 68{,}425{,}219\ L = 3.48 \times 10^{9}\ pCi$$

Similarly, for Gross Alpha:

$$\frac{18\ pCi}{L} \times 68{,}425{,}219\ L = 1.23 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{3.51\ pCi}{L} \times 68{,}425{,}219\ L = 2.41 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{1.59\ pCi}{L} \times 68{,}425{,}219\ L = 1.09 \times 10^{8}\ pCi$$

Summation of the four (4) results yields the total discharged activity for the Third Quarter 2009 reporting period:

$$3.48 \times 10^{9}\ pCi + 1.23 \times 10^{9}\ pCi + 2.41 \times 10^{8}\ pCi + 1.09 \times 10^{8}\ pCi = 5.06 \times 10^{9}\ pCi$$

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01044456

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231
www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I - 57154

1 of 1

Customer name/number: Allied Waste | Submitter # 8945
Project Name: 3Q09 Leachate Bridgeton
Z Quote No: Z139877 (Given to you by your contact)
PO No. or Project/Activity ID: P033370800400

PRINT HERITAGE TSR NAME: ——

CUSTOMER STATUS: New / (Existing)

If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Herst & Associates, Inc.
Brandon Killion & Leslie Keuss

Analyses Requested (Note special detection limits or methods): Z140306

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Metric): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z140306	Remarks:	Lab use only Sample No.
8/5-6/09	1145, 1615 AM 0820, 1145 PM			Outfall 008	LL	4	X	Short Hold	A854318
8/6/09	1145 AM PM			Outfall 008	LL	2	X		1

Send Report To:
Co: Herst & Associates, Inc.
Add: 4630 S. Hwy 94 N. Outer Rd.
St. Charles, MO 63304
Attn: Ward Herst
Phone: (636) 939-9111 Yes
Fax: (636) 939-9757
E-mail: labdata@herstassociates.com

Sample Turn Around Time
Standard: ✓ Rush Date ___/___/___ Mo Day Yr
(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Relinquished by: (Signature) Leslie Keuss Date/Time 8/6/09 / 1830
Received by: (Signature) Fedex #984809648339
Relinquished by: (Signature) Date/Time /
Received by: (Signature)
Relinquished by: (Signature) Date/Time /
Received by: (Signature)
Received for Lab by: (Signature)
Date 8-07-09 Temp. 0.9 °C
Time 835 ROI: Yes / No

Laboratory use only	Yes	No
Custody seals present/intact?	✓	
Broken containers?		✓
COC agree with sample labels?	✓	
Correct containers for testing?	✓	
Headspace issues acceptable?	✓	
Holding time(s) acceptable?	✓	
Preservative pH's acceptable?	✓	
Was pH left unadjusted?	✓	

Comments: LL = Leachate

ORIGINAL

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MSD 024368

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	07-AUG-09		A854318
	Completed	PO Number	
	21-AUG-09	PO NEEDED	
	Printed	Sampled	
	24-AUG-09	06-AUG-09 11:45	

Report To	Bill To
WARD HERST HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 NORTH OUTER ROAD ST. CHARLES, MO 63304	ACCOUNTS PAYABLE ALLIED WASTE SYSTEMS 12976 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER CODE: 8945
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: S. BOXUM Analysis Date: 07-AUG-09 14:15 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	33	2.0	mg/L

The CCV is biased low.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: J. CROFFIE Analysis Date: 18-AUG-09 15:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	520	20	mg/L

1:2 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: B. NDABAMBI Analysis Date: 18-AUG-09 19:00 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	BDL	5.0	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: T. DRIGGERS Analysis Date: 19-AUG-09 07:00 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	250		mL
FINAL VOLUME	250		mL

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HERITAGE

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A854318 OUTFALL 008

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 20-AUG-09 07:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	180	10	mg/L

1:100 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: E. SOTKIEWICZ Analysis Date: 11-AUG-09 14:15 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	19	1	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: P. MATAKA Analysis Date: 10-AUG-09 08:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 11-AUG-09 05:31 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	21	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 11-AUG-09 05:31 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	24	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 11-AUG-09 05:31 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	30	20	ug/L

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B, 19TH ED. NELAC:Y

Analysis Date: 06-AUG-09 Instrument: FIELD Test: G607.2.0

Parameter	Result	Det. Limit	Units
PH	6.58	0.1	Std. Units

FIELD TEMPERATURE SM 2550 B, 19TH ED. NELAC:N

Analysis Date: 06-AUG-09 Instrument: FIELD Test: G603.1.0

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MSD 024370

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A854318 OUTFALL 008

Parameter	Result	Det. Limit	Units
TEMPERATURE	27.2		Degrees C

FIELD SPECIFIC CONDUCTANCE EPA 120.1 NELAC:Y

Analysis Date: 06-AUG-09 Instrument: FIELD Test: G604.1.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	3930	1.0	umHOS/cm

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .9 C.
Sample chain of custody number 57154.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.
Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.
Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.
Indiana SDWA Lab Accred. No. C-49-01

Approved by: CHRISTINE SARKAN 24-AUG-09

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Herst & Associates Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F9H060204-001
Work Order: LHL61
Matrix: WATER

Date Collected: 08/06/09 1145
Date Received: 08/06/09 1210

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 9218400	Yld % 84
Radium 228	1.59		0.37	1.00	0.40	08/06/09	08/22/09
Gross Alpha/Beta EPA 900				pCi/L		Batch # 9222122	Yld %
Gross Alpha	18		10	3	11	08/10/09	08/16/09
Gross Beta	50.8		9.7	4.0	8.9	08/10/09	08/16/09
Total Uranium by KPA ASTM 5174-91				ug/L		Batch # 9223318	Yld %
Total Uranium	2.57	U	0.40	10.0	3.1	08/11/09	08/12/09
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 9218396	Yld % 95
Radium (226)	3.51		0.42	1.00	0.1	08/06/09	08/24/09
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 9219425	Yld %
Cesium 137	-0.7	U	9.2	20.0	17	08/07/09	08/19/09

NOTE (S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

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Chain of Custody Record

Cur 266

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

AL-4124 (1007)

Client: Allied Waste c/o Herst & associates, Inc	Project Manager: Ward Herst	Date: 8/6/09	Chain of Custody Number: 127468
Address: 1630 S. Hwy 94 N. Outer Rd	Telephone Number (Area Code)/Fax Number: 636-939-9111 / 636-939-9757	Lab Number: —	Page 1 of 1
City: St. Charles; State: MO; Zip Code: 63304	Site Contact: Dave Vasbinder ~~Brandon Killion~~ (R); Lab Contact: Kay Clay		
Project Name and Location (State): Bridgeton 3Q09 Leachate	Carrier/Waybill Number: —		
Contract/Purchase Order/Quote No.: —			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Ra 226	Ra 228	Uranium	Gross Alpha	Gross Beta	Gross Gamma	Special Instructions/ Conditions of Receipt
Outfall 008	8/5-6/09	1145, 1615, 1815, 1145		X					?				X	X	X	X	X	X	2x4CP

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
Relinquished By: [signature]	8/6/09	1210	1. Received By: [signature]	8/6/9	1210
Relinquished By:			2. Received By:		
Relinquished By:			3. Received By:		

Comments: 24 Composite Sample

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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Lot # F9H060204

2009

Allied Waste's
Bridgeton Landfill LLC.
Monthly Leachate Meter Reading

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet	Charge Per 100 Cubic Feet	Amount Due
January	1/30/2009	8,689,955	280,321	1,161,758.69	11,617.59	$1.05	$12,198.47
February	2/27/2009	6,349,530	204,824	848,867.65	8,488.68	$1.05	$8,913.11
March	3/31/2009	7,246,619	233,762	968,799.33	9,687.99	$1.05	$10,172.39
April	4/30/2009	6,832,630	220,407	913,453.21	9,134.53	$1.05	$9,591.26
May	6/1/2009	6,839,600	220,632	914,385.03	9,143.85	$1.05	$9,601.40
June	7/1/2009	6,634,714	214,023	886,993.85	8,869.94	$1.05	$9,313.44
July	7/31/2009	5,899,943	190,321	788,762.43	7,887.62	$1.05	$8,282.01
August	8/31/2009	6,293,606	203,020	841,391.18	8,413.91	$1.05	$8,834.61
September	9/30/2009	5,884,448	189,821	786,690.91	7,866.91	$1.05	$8,260.25
October						$1.05	
November						$1.05	
December						$1.05	

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September Monthly Precipitation 3.16 Inches

10/12/2009

MSD DEPARTMENT MEMO - ENVIRONMENTAL COMPLIANCE

TO: BRIDGETON LANDFILL LLC [0511559802]

FROM: Doug Mendoza DM

DATE: August 3, 2009

RE: TOTAL PHENOLS RESULTS & NON-ADDITION TO SELF-MONITORING

One of MSD's landfill customers, Veolia Environmental Services Oak Ridge Landfill at 1741 Sulphur Springs Road 63021, self-monitors for total phenols. They have historically had significant levels of total phenols, which is believed to come from their capture and purification (dewatering) of methane from the landfill.

Total phenols can also be a normal constituent of landfill leachate. Total phenols monitoring by MSD was recently added for all the landfills, and special sampling was performed to see if it needed to be added to self-monitoring requirements (see below).

The results (attached) show that total phenols were present only at low levels. Therefore, it will not be added as a self-monitoring requirement for the landfill at this time. This was the case for all landfills except Veolia Environmental Services Oak Ridge Landfill.

Original sampling request:

From: Doug Mendoza
Sent: Wednesday, July 01, 2009 08:10 AM
To: Paul Slovacek
Subject: Special sampling request for (most) landfills

COMPANY NAMES & ACCT #'s:

BFI SERVICES GROUP INC [7777704200]
BFI WASTE SYSTEMS OF NORTH AMERICA INC [9005368901]
BRIDGETON LANDFILL LLC [0511559802]
F&J LANDFILL C/O MARYLAND HEIGHTS GOLF LLC [1045916300]
FRED WEBER INC - NORTH SANITARY LANDFILL [9001496101]

NO. OF SAMPLES REQUESTED: 1
NEEDED NO LATER THAN IN HOW MANY WEEKS: 12

SPECIAL INSTRUCTIONS: Please sample each landfill above to Total Phenols.

Probably can be done as part of annual sampling. The pollutant was added to normal field sampling requirements, but I don't think it was done soon enough to make the FY2010 sampling worklist. Checking to see if these sanitary landfills need to have permits revised to add total phenols to self-monitoring requirements.

Doug

MSD

Certificate of Analysis

Metropolitan St. Louis Sewer District

Phone: 314-436-8710 Fax: 314-436-8753

Department of Environmental Compliance
10 East Grand
Saint Louis, MO 63147

Report Date: *03-Aug-09*

Sample Match No. : **0996839**

Account No:	0511559802	**Industry Name:**	BRIDGETON LANDFILL LLC
Sample Point:	007	**Source:**	
Received Date:	13-Jul-09	**Reason:**	
Due Date:		**Project:**	Industrial Pretreatment - Company - MSD
Requestor:		**Location:**	14" pipe into Westlink Pump Station Wetwell, on S side
Collected By:	Joe Pavlich	**Treatment Area:**	MSD Sample
Remarks:			

Sample Match No. : **0996839**

Logbk #	PC	BT	Result Name	Test Value	Units	Comp	Sampling Start		Sampling End	
26801	IM	G2	Field Time - 1	08:23	hh:mm	G			7/13/2009	08:23
26801	IM	G2	Total Phenols	0.67	mg/l	G			7/13/2009	08:23
26803	IM	G3	Field Time - 1	08:23	hh:mm	G			7/13/2009	08:23
26803	IM	G3	2,4,6-trichlorophenol	N.M.	mg/l	G			7/13/2009	08:23
26803	IM	G3	2,4-dichlorophenol	N.M.	mg/l	G			7/13/2009	08:23
26803	IM	G3	2,4-dimethylphenol	N.M.	mg/l	G			7/13/2009	08:23
26803	IM	G3	2,4-dinitrophenol	N.M.	mg/l	G			7/13/2009	08:23
26803	IM	G3	2-chlorophenol	N.M.	mg/l	G			7/13/2009	08:23
26803	IM	G3	2-nitrophenol	N.M.	mg/l	G			7/13/2009	08:23
26803	IM	G3	4,6-dinitro-2-methylphenol	N.M.	mg/l	G			7/13/2009	08:23
26803	IM	G3	4-chloro-3-methylphenol	N.M.	mg/l	G			7/13/2009	08:23
26803	IM	G3	4-nitrophenol	N.M.	mg/l	G			7/13/2009	08:23
26803	IM	G3	Pentachlorophenol	N.M.	mg/l	G			7/13/2009	08:23
26803	IM	G3	Phenol	N.M.	mg/l	G			7/13/2009	08:23
26802	IM	M1	Field pH - 1	N.M.	SU	G			7/13/2009	08:23
26802	IM	M1	Field pH - 2	N.M.	SU	G			7/13/2009	
26802	IM	M1	Field pH - 3	N.M.	SU	G			7/13/2009	
26802	IM	M1	Field pH - 4	N.M.	SU	G			7/13/2009	
26802	IM	M1	Field Temperature - 1	N.M.	Deg C	G			7/13/2009	08:23
26802	IM	M1	Field Temperature - 2	N.M.	Deg C	G			7/13/2009	
26802	IM	M1	Field Temperature - 3	N.M.	Deg C	G			7/13/2009	
26802	IM	M1	Field Temperature - 4	N.M.	Deg C	G			7/13/2009	

Sample Match No. : 0996839

Logbk #	PC	BT	Result Name	Test Value	Units	Comp	Sampling Start	Sampling End

Notes:

APPROVED BY

Mario J. DePrimo APPROVAL DATE: 7/28/2009

Laboratory Manager

BT = Bottle Type PC = Project Code

SR

HERST & ASSOCIATES, INC.®

Global Presence
Personal Attention

MAM 8/13/09

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

July 27, 2009

Dear Mr. Rehmer:

Second Quarter 2009 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-1

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the Second Quarter 2009 leachate sampling and analysis report for the Bridgeton Landfill. On May 6, 2009 and May 7, 2009, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-1. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Report Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Second Quarter 2009 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for April, May, and June 2009.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Brandon Killion
Staff Environmental Scientist

for
Ward E. Herst, R.G.
Managing Director

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) 939-8111
Fax (636) 939-8757

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: [ ] (Jan-Mar) [X] (Apr-Jun) [ ] (July-Sept) [ ] (Oct-Dec)

Samples Collected By: Brandon Killion and Bryan Sehie of Herst & Associates, Inc.

Analyses Performed By: Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc.

Part II: Analytical Results of Self Monitoring

MSD Sample Point Reference Numbers →		008						
Dates on which samples were collected →		5/6/2009 and 5/7/2009						
Times at which samples were collected →		1115, 1515, 0815, 1115						
Parameter	**Limit**	**Record Sample Types (G, C, M, or E) and Results Below G=grab, C=composite, M=measured flow, E=estimated flow**						**Units**
Flow	***	E	227,538					GPD
Biochemical Oxygen Demand	****	C	36					mg/L
Chemical Oxygen Demand	****	C	600					mg/L
Oil and Grease	200	G	ND < 5.0					mg/L
pH Acidic (<7)	5.5	G						SU
pH Basic (≥7)	11.5	G	7.39					SU
Temperature	60	G	25.7					°C
Total Suspended Solids	****	C	25					mg/L
Ammonia (as N)	*****	C	170					mg/L
Arsenic (Total)	0.4	C	0.020					mg/L
Cadmium (Total)	0.7	C	ND < 0.0050					mg/L
Chromium (Total)	5.0	C	0.016					mg/L
Copper (Total)	2.7	C	0.15					mg/L
Lead (Total)	0.4	C	0.012					mg/L
Mercury (Total)	0.01	C	ND < 0.00020					mg/L
Nickel (Total)	2.3	C	0.020					mg/L
Zinc (Total)	3.0	C	ND < 0.020					mg/L
Total Toxic Organics	5.52	G	0.075					mg/L
Gross Alpha	*****	C	U					pCi/L
Gross Beta	*****	C	68 ± 11					pCi/L
Gross Gamma (as Cesium-137)	*****	C	U					pCi/L
Radium - 226	10	C	4.28 ± 0.58					pCi/L
Radium – 228	30	C	1.36 ± 0.34					pCi/L
Uranium (Total)	*****	C	6.09 ± 0.83					µg/L

Notes:
ND = Non-Detect
NR = Not required during this quarterly event
U = Result is less than the sample detection limit

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Part III: Special Certification Statements

Based on the special conditions contained in your discharge permit you may be required to certify one of more of the following. Please review your permit and **place your initials in the boxes next to those certifications which are applicable to your facility**. If your permit contains no Special Conditions, then none of the certifications in **Part III** apply to you. **Go on to Part IV.**

A. If your permit special conditions waive monitoring at any sample point(s) specified in your permit, you are required to make the following certification:

[ ] I certify, since the last discharge monitoring report, there has been no change in the character of the wastes discharged at sampling points _____.

B. If your permit special conditions waive monitoring at active connection points which are not specified as sample points in your permit, you are required to make the following certification:

[X] I certify, since the last discharge monitoring report, there has been no change in the character of wastes discharged at those active connection points which are not specified in my permit.

C. If your permit special conditions waive monitoring at inactive connection points, you are required to make the following certification:

[ ] I certify, since the permit issue date, there has been no change in the status of connection points identified as inactive. These points remain inactive and no discharge occurred during the period covered by this report.

D. If your permit special conditions authorize grab sample collection in lieu of composite sampling at any sample point(s), you are required to make the following certification:

[ ] I certify the grab sample results in this report accurately represent our average daily discharge at sample points(s) _____.

E. If your permit special conditions prohibit discharge of wastes which are subject to certain categorical pretreatment standards, you are required to make the following certification:

[ ] I certify, since the last discharge monitoring report, there has been no discharge of wastes which are subject to pretreatment standards in 40 CFR _____.

F. Discharges subject to Pharmaceutical Categorical Standards (40 CFR 439) can be exempted from limitations and monitoring for Total Cyanide at the Pharmaceutical sample point(s) subjected to the following certification:

[ ] I certify, since the last discharge monitoring report, cyanide has not been used or generated in any pharmaceutical manufacturing process subject to Categorical Standards in 40 CFR 439.

G. Discharges Subject to Categorical Standards for Electroplating (40 CFR 413), Metal Finishing (40 CFR 433) or Electrical & Electronic Components (40 CFR 469) can be exempted from TTO monitoring only at the Electroplating, Metal Finishing or Electrical & Electronic Components sample point(s) subject to the following certification:

[ ] Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to MSD.

Part IV: Special Certification Statements

Initial the box for statement A if it applies to you. **Everyone must complete the information under statement B and sign this report.**

A. Discharges at sample points subject only to MSD Ordinance limits can be exempted from TTO monitoring subject to the following certification:

[ ] In lieu of monitoring for TTO at sample point(s) _____, I certify that to the best of my knowledge and belief, no toxic organics have been used at this premise or discharged into the wastewaters since filing of the last discharge monitoring report.

B. **Discharge Monitoring Report Certification**

I certify under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system designated 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager Telephone: 314-739-5099 x 4464

Signature: [signature] Date: 7/27/09

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☒ (Apr-Jun) ☐ (July-Sept) ☐ (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	Not Applicable – Constituent Not Detected
Gross Beta	5.23×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	3.29×10^8
Radium - 228	1.05×10^8
Total Activity Discharged :	5.66×10^9 pCi

= 5.66 mCi

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

☒ I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: David Vasbinder

Title: Environmental Manager

Telephone: 314-739-5099 ext 4464

Signature:

Date: 7/27/09

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.A.2 of the Bridgeton Landfill MSD Permit (Permit 05115598-02), each quarterly discharge report shall specify the activity discharged to the sewer system by permitted radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Second Quarter 2009 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\begin{matrix} \textit{Discharged} \\ \textit{Activity} \end{matrix} = \begin{matrix} \textit{Activity} \\ \textit{Concentration} \end{matrix} \times \begin{matrix} \textit{Discharged} \\ \textit{Volume} \end{matrix}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Second Quarter 2009 monitoring period.

Constituent	Result	Units
Gross Alpha	U	pCi/L
Gross Beta	68 ± 11	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	4.28 ± 0.58	pCi/L
Radium – 228	1.36 ± 0.34	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Second Quarter 2009 monitoring period:

- April 2009: 6,832,630 gallons
- May 2009: 6,839,600 gallons
- June 2009: 6,634,714 gallons

Summation of the monthly volumes provides the total volume discharged during the Second Quarter 2009 period:

$$6{,}832{,}630\ gal + 6{,}839{,}600\ gal + 6{,}634{,}714\ gal = 20{,}306{,}944\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) [illegible]
Fax (636) 939-9757

$$20{,}306{,}944\ gal \times \frac{3.785\ L}{gal} = 76{,}861{,}783\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Beta, multiply the activity concentration by the discharged volume:

$$\frac{68\ pCi}{L} \times 76{,}861{,}783\ L = 5.23 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{4.28\ pCi}{L} \times 76{,}861{,}783\ L = 3.29 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{1.36\ pCi}{L} \times 76{,}861{,}783\ L = 1.05 \times 10^{8}\ pCi$$

Summation of the three (3) results yields the total discharged activity for the Second Quarter 2009 reporting period:

$$5.23 \times 10^{9}\ pCi + 3.29 \times 10^{8}\ pCi + 1.05 \times 10^{8}\ pCi = 5.66 \times 10^{9}\ pCi$$

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01041635

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231
www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I - 56213

1 of 1

Customer name/number: Allied Waste
Submitter # 8945
Project Name: 2Q09 Leachate Bridgeton
Z Quote No: Z140306 (Given to you by your contact)
PO No. or Project/Activity ID: P033370800400
PRINT HERITAGE TSR NAME:

CUSTOMER STATUS: New / Existing
If no previous credit has been established with Heritage, prepayment (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Herat & Associates, Inc. Brandon Killion & Bryan Sehie

Analyses Requested (Note special detection limits or methods)

Send Report To:
Co: Herat & Associates
Add: 4630 S. Hwy 94 N. Outer Rd St. Charles MO 63304
Attn: Ward Herat
Phone: (636) 939-9111
Fax: (636) 939-9757 Yes X
E-mail: labdata@herat associates.com

Sample Turn Around Time
Standard: ✓ Rush Date / / Mo Day Yr
(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z140306	Remarks:	Lab use only Sample No.
5/6-7/09	1115, 1515, 1115 AM PM	X		Outfall 008	LL	4	X	Short Hold	A846380
5/7/09	1115 AM PM	X		Outfall 008	LL	10	X		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	5/7/09 1700	FedEx# 9848 0964 3624
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/	
Received for Lab by: (Signature)	Date 5.8.09 Time 820	Temp. 1.9 °C RCL Yes / No

Laboratory use only	Yes	No
Custody seals present/intact?	✓	
Broken containers?		✓
COC agree with sample labels?	✓	
Correct containers for testing?	✓	
Headspace issues acceptable?	✓	
Holding time(s) acceptable?	✓	
Preservative pH's acceptable?	✓	✓
Was pH left unadjusted?	✓	✓

Comments: LL = Leachate
initial pH adjusted on O+G jars

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MSD 024384

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	08-MAY-09		A846380
	Completed	**PO Number**	
	01-JUN-09	PO33370800400	
	Printed	**Sampled**	
	02-JUN-09	07-MAY-09 11:15	

Report To

WARD HERST
HERST AND ASSOCIATES
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Bill To

ACCOUNTS PAYABLE
ALLIED WASTE SYSTEMS
12976 ST. CHARLES ROCK ROAD
BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER CODE: 8945
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: ANNUAL LEACHATE
830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: S. BOXUM Analysis Date: 08-MAY-09 14:25 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	36	2	mg/L

The CCV is biased low.

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: J. CROFFIE Analysis Date: 14-MAY-09 14:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	600	20	mg/L

1:2 Dilution.

HEXANE OIL AND GREASE - TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: B. NDABAMBI Analysis Date: 18-MAY-09 14:30 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	BDL	5.0	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: R. YOUNG Analysis Date: 13-MAY-09 09:00 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	250		mL
FINAL VOLUME	250		mL

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HERITAGE

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A846380 OUTFALL 008

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 14-MAY-09 13:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	170	5.0	mg/L

1:50 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: A. DUKES Analysis Date: 12-MAY-09 09:30 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	25	1	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: P. MATAKA Analysis Date: 11-MAY-09 09:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

ARSENIC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 12-MAY-09 03:29 Instrument: ICP Test: M403.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ARSENIC	0.020	0.010	mg/L

CADMIUM ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 12-MAY-09 03:29 Instrument: ICP Test: M408.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
CADMIUM	BDL	0.0050	mg/L

CHROMIUM ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 12-MAY-09 03:29 Instrument: ICP Test: M410.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
CHROMIUM	0.016	0.010	mg/L

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 12-MAY-09 03:29 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	0.15	0.010	mg/L

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LEAD ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER | Analysis Date: 12-MAY-09 03:29 | Instrument: ICP | Test: M416.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
LEAD	0.012	0.010	mg/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER | Analysis Date: 12-MAY-09 03:29 | Instrument: ICP | Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	0.020	0.0050	mg/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER | Analysis Date: 12-MAY-09 03:29 | Instrument: ICP | Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	BDL	0.020	mg/L

MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 NELAC:Y

Analyst: S. O'NEAL | Analysis Date: 18-MAY-09 10:00 | Instrument: PREP | Test: P131.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	40		mL
FINAL VOLUME	40		mL

MERCURY CVAA EPA 245.1 REV. 3.0 NELAC:Y

Analyst: S. O'NEAL | Analysis Date: 19-MAY-09 12:24 | Instrument: CVAA | Test: M420.2.0

Prep: MERCURY CVAA ACID DIGESTION EPA 245.1 REV. 3.0 P131.2.0

Parameter	Result	Det. Limit	Units
MERCURY	BDL	0.00020	mg/L

SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625

Analyst: C. WILLHITE | Analysis Date: 11-MAY-09 15:20 | Instrument: PREP | Test: P243.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	1000		mL
FINAL VOLUME	1.0		mL

SEMI-VOLATILE PRIORITY POLLUTANTS (BASE/NEUTRAL/ACID) EPA 625 NELAC:Y

Analyst: C. WILLHITE | Analysis Date: 18-MAY-09 21:34 | Instrument: GC/MS SVOA | Test: O501.3.0

Prep: SEMI-VOLATILE EXTRACTION (NEUTRAL/BASE/ACID FRACTIONS) EPA 625 P243.1.0

Parameter	Result	Det. Limit	Units
2,4,6-TRICHLOROPHENOL	BDL	10	ug/L
4-CHLORO-3-METHYLPHENOL	BDL	10	ug/L
2-CHLOROPHENOL	BDL	10	ug/L
2,4-DICHLOROPHENOL	BDL	10	ug/L

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2,4-DIMETHYLPHENOL	BDL	10	ug/L
2-NITROPHENOL	BDL	10	ug/L
4-NITROPHENOL	BDL	20	ug/L
2,4-DINITROPHENOL	BDL	20	ug/L
4,6-DINITRO-O-CRESOL	BDL	20	ug/L
PENTACHLOROPHENOL	BDL	20	ug/L
PHENOL	BDL	10	ug/L
ACENAPHTHENE	BDL	10	ug/L
BENZIDINE	BDL	20	ug/L
1,2,4-TRICHLOROBENZENE	BDL	10	ug/L
HEXACHLOROBENZENE	BDL	10	ug/L
HEXACHLOROETHANE	BDL	10	ug/L
BIS(2-CHLOROETHYL)ETHER	BDL	10	ug/L
2-CHLORONAPHTHALENE	BDL	10	ug/L
1,2-DICHLOROBENZENE (O-DICHLOROBENZENE)	BDL	10	ug/L
1,3-DICHLOROBENZENE (M-DICHLOROBENZENE)	BDL	10	ug/L
1,4-DICHLOROBENZENE (P-DICHLOROBENZENE)	BDL	10	ug/L
3,3'-DICHLOROBENZIDINE	BDL	10	ug/L
2,4-DINITROTOLUENE	BDL	10	ug/L
2,6-DINITROTOLUENE	BDL	10	ug/L
FLUORANTHENE	BDL	10	ug/L
4-CHLOROPHENYL-PHENYLETHER	BDL	10	ug/L
4-BROMODIPHENYL ETHER	BDL	10	ug/L
BIS(2-CHLOROISOPROPYL)ETHER	BDL	10	ug/L
BIS(2-CHLOROETHOXY)METHANE	BDL	10	ug/L
HEXACHLOROBUTADIENE	BDL	10	ug/L
HEXACHLOROCYCLOPENTADIENE	BDL	10	ug/L
ISOPHORONE	BDL	10	ug/L
NAPHTHALENE	13	10	ug/L
NITROBENZENE	BDL	10	ug/L
N-NITROSODIMETHYLAMINE	BDL	10	ug/L
N-NITROSO-DIPROPYLAMINE	BDL	10	ug/L
N-NITROSODIPHENYLAMINE	BDL	10	ug/L
BIS(2-ETHYLHEXYL)PHTHALATE	BDL	10	ug/L
(BENZYLBUTYLPHTHALATE) BUTYLBENZYLPHTHALATE	BDL	10	ug/L
DI-N-BUTYLPHTHALATE	BDL	10	ug/L
DI-N-OCTYLPHTHALATE	BDL	10	ug/L
DIETHYLPHTHALATE	BDL	10	ug/L
DIMETHYLPHTHALATE	BDL	10	ug/L
BENZ(A)ANTHRACENE	BDL	10	ug/L
BENZO(A)PYRENE	BDL	10	ug/L

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BENZO(B)FLUORANTHENE	BDL	10	ug/L
BENZO(K)FLUORANTHENE	BDL	10	ug/L
CHRYSENE	BDL	10	ug/L
ACENAPHTHYLENE	BDL	10	ug/L
ANTHRACENE	BDL	10	ug/L
BENZO(G,H,I)PERYLENE	BDL	10	ug/L
FLUORENE	BDL	10	ug/L
PHENANTHRENE	BDL	10	ug/L
DIBENZ(A,H)ANTHRACENE	BDL	10	ug/L
INDENO(1,2,3-CD)PYRENE	BDL	10	ug/L
PYRENE	BDL	10	ug/L
1,2-DIPHENYLHYDRAZINE	BDL	10	ug/L
2-METHYLPHENOL (O-CRESOL)	BDL	10	ug/L
3-METHYLPHENOL (M-CRESOL)	BDL	10	ug/L
4-METHYLPHENOL (P-CRESOL)	BDL	10	ug/L
...			
SURROGATE RECOVERY			

2-FLUOROPHENOL	112		% Rec
PHENOL-D5	91		% Rec
NITROBENZENE-D5	165		% Rec
2-FLUOROBIPHENYL	154		% Rec
2,4,6-TRIBROMOPHENOL	176		% Rec
TERPHENYL-D14	129		% Rec

DUE TO LABORATORY CONSTRAINTS, BENZIDINE, 2,4-DICHLOROPHENOL, PENTACHLOROPHENOL,

4-NITROPHENOL, AND 4,6-DINITRO-O-CRESOL ARE

Surrogates were added twice during prep.

REPORTED AT DETECTION LIMITS OF 20 UG/L INSTEAD OF 10 UG/L

VOLATILE PRIORITY POLLUTANTS EPA 624 NELAC:Y

Analyst: H. WILLIAMS Analysis Date: 14-MAY-09 08:50 Instrument: GC/MS VOA Test: O502.3.0

Parameter	Result	Det. Limit	Units
ACROLEIN	BDL	50	ug/L
ACRYLONITRILE	BDL	70	ug/L
BENZENE	BDL	10	ug/L
BROMOFORM	BDL	10	ug/L
CARBON TETRACHLORIDE	BDL	10	ug/L
CHLOROBENZENE	51	10	ug/L
CHLOROETHANE	BDL	10	ug/L

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2-CHLOROETHYLVINYLETHER	BDL	10	ug/L
CHLOROFORM	BDL	10	ug/L
DIBROMOCHLOROMETHANE	BDL	10	ug/L
BROMODICHLOROMETHANE	BDL	10	ug/L
1,1-DICHLOROETHANE	BDL	10	ug/L
1,2-DICHLOROETHANE	BDL	10	ug/L
1,1-DICHLOROETHENE	BDL	10	ug/L
1,2-DICHLOROPROPANE	BDL	10	ug/L
CIS-1,3-DICHLOROPROPENE	BDL	10	ug/L
TRANS-1,3-DICHLOROPROPENE	BDL	10	ug/L
ETHYL BENZENE	11	10	ug/L
BROMOMETHANE	BDL	10	ug/L
CHLOROMETHANE	BDL	10	ug/L
DICHLOROMETHANE (METHYLENE CHLORIDE)	BDL	10	ug/L
1,1,2,2-TETRACHLOROETHANE	BDL	10	ug/L
TETRACHLOROETHENE	BDL	10	ug/L
TOLUENE	BDL	10	ug/L
1,2-DICHLOROETHENE (CIS AND TRANS)	BDL	10	ug/L
1,1,1-TRICHLOROETHANE	BDL	10	ug/L
1,1,2-TRICHLOROETHANE	BDL	10	ug/L
TRICHLOROETHENE	BDL	10	ug/L
TRICHLOROFLUOROMETHANE	BDL	10	ug/L
VINYL CHLORIDE	BDL	10	ug/L
2-BUTANONE	EX	10	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	109		% Rec
TOLUENE-D8	100		% Rec
4-BROMOFLUOROBENZENE	111		% Rec

PH6

ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608

Analyst: B. WOOD | Analysis Date: 11-MAY-09 | Instrument: PREP | Test: P223.1.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	900		mL
FINAL VOLUME	10		mL

VOLATILE PRIORITY POLLUTANTS EPA 624

NELAC:Y

Analyst: H. WILLIAMS | Analysis Date: 21-MAY-09 17:43 | Instrument: GC/MS VOA | Test: 0502.3V

Parameter	Result	Det. Limit	Units

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2-BUTANONE	530	20	ug/L
...			
SURROGATE RECOVERY			

DICHLOROETHANE-D4	116		% Rec
TOLUENE-D8	98		% Rec
4-BROMOFLUOROBENZENE	110		% Rec

DILUTION 1:10

ORGANOCHLORINE PESTICIDES AND PCBS IN WATER/WASTEWATER EPA 608 NELAC:Y

Analyst: R. DALAL Analysis Date: 29-MAY-09 14:02 Instrument: GC/ECD Test: O305.0.0

Prep: ORGANOCHLORINE PESTICIDES AND PCBS EXTRACTION EPA 608 P223.1.0

Parameter	Result	Det. Limit	Units
ALPHA-BHC	BDL	10	ug/L
BETA-BHC	BDL	10	ug/L
DELTA-BHC	BDL	10	ug/L
GAMMA-BHC (LINDANE)	BDL	10	ug/L
HEPTACHLOR	BDL	10	ug/L
ALDRIN	BDL	10	ug/L
HEPTACHLOR EPOXIDE	BDL	10	ug/L
ENDOSULFAN I	BDL	10	ug/L
DIELDRIN	BDL	10	ug/L
4,4'-DDE	BDL	10	ug/L
ENDRIN	BDL	10	ug/L
ENDOSULFAN II	BDL	10	ug/L
4,4'-DDD	BDL	10	ug/L
ENDOSULFAN SULFATE	BDL	10	ug/L
4,4'-DDT	BDL	10	ug/L
METHOXYCHLOR	BDL	10	ug/L
ENDRIN ALDEHYDE	BDL	10	ug/L
ALPHA-CHLORDANE	BDL	10	ug/L
GAMMA-CHLORDANE	BDL	10	ug/L
CHLORDANE	BDL	10	ug/L
TOXAPHENE	BDL	10	ug/L
PCB AROCLOR 1016	BDL	10	ug/L
PCB AROCLOR 1221	BDL	10	ug/L
PCB AROCLOR 1232	BDL	10	ug/L
PCB AROCLOR 1242	BDL	10	ug/L
PCB AROCLOR 1248	BDL	10	ug/L
PCB AROCLOR 1254	BDL	10	ug/L

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HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A846380 OUTFALL 008

PCB AROCLOR 1260	BDL	10	ug/L
...			
SURROGATE RECOVERY			
DECACHLOROBIPHENYL (DCB)	35.9		% Rec

Sample Comments

BDL Below Detection Limit

EX Exceeds calibration range. See Replicate

Sample was received on ice at temperature 1.9 C.
Sample chain of custody number 56213.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.
Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.
Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.
Indiana SDWA Lab Accred. No. C-49-01

Approved by: CHRISTINE SARKAN 02-JUN-09

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MSD 024392

METHODS SUMMARY

F9E080107

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
Radium-226 by GFPC	EPA 903.0 MOD	
Radium-228 by GFPC	EPA 904 MOD	
Total Uranium By Laser Ph osphorimetry	ASTM 5174-91	

References:

ASTM Annual Book Of ASTM Standards.

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

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SAMPLE SUMMARY

F9E080107

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LCLC6	001	OUTFALL 008	05/07/09	11:15

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

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MSD 024394

Herst & Associates Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F9E080107-001
Work Order: LCLC6
Matrix: WATER

Date Collected: 05/07/09 1115
Date Received: 05/07/09 1610

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 9128271	Yld % 87
Radium 228	1.36		0.34	1.00	0.38	05/08/09	05/26/09
Gross Alpha/Beta EPA 900				pCi/L		Batch # 9131133	Yld %
Gross Alpha	11.0	U	9.9	3.0	14	05/11/09	05/15/09
Gross Beta	68		11	4	9	05/11/09	05/15/09
Total Uranium by KPA ASTM 5174-91				ug/L		Batch # 9128399	Yld %
Total Uranium	6.09		0.83	10.0	3.1	05/08/09	05/09/09
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 9128270	Yld % 100
Radium (226)	4.28		0.58	1.00	0.21	05/08/09	05/26/09
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 9131414	Yld %
Cesium 137	0.0	U	9.4	20.0	18	05/11/09	05/24/09

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NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

[redacted]

...ain of ...stody Record

CUR 22

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

...124 (1007)

...nt: Allied Waste c/o Herst & Associates, Inc	Project Manager: Ward Herst	Date: 5/7/09	Chain of Custody Number: 127314
...ress: 630 S. Hwy 94 N. Outer Rd	Telephone Number (Area Code)/Fax Number: 636-939-9111 / 636-939-9757	Lab Number: —	Page 1 of 1
...t. Charles — State: MO — Zip Code: 63304	Site Contact: Dave Vasbinder — Lab Contact: Kay Clay		
...ect Name and Location (State): Bridgeton 2Q09 Leachate	Carrier/Waybill Number: —		
...tract/Purchase Order/Quote No.: —			

Sample I.D. No. and Description (...ntainers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Ra226	Ra228	Uranium	Gross Alpha	Gross Beta	Gross Gamma	Special Instructions/ Conditions of Receipt
Outfall 008	5/6-7/2009	1115, 1515 0815, 1115		X					2				X	X	X	X	X	X	2X 4LP

...ssible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

...n Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
...linquished By: [signature]	5-7-09	1610	1. Received By: Lena Duty	5-7-09	1610
...linquished By:			2. Received By:		
...linquished By:			3. Received By:		

...mments: 24 - Composite Sample

...TRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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ot # F9E080107

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F9E080107

CONDITION UPON RECEIPT FORM

Client: Allied Waste

Quote No: 49794

22

COC/RFA No: 127314

Initiated By: AD

Date: 5-7-09 Time: 1610

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*

1. _____ 6. _____
2. _____ 7. _____
3. _____ 8. _____
4. _____ 9. _____
5. _____ 10. _____

Sample Temperature (s):**

1. 5 6. _____
2. _____ 7. _____
3. _____ 8. _____
4. _____ 9. _____
5. _____ 10. _____

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests- Liquid or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y N	Are there custody seals present on the cooler?	8.	Y N	Are there custody seals present on bottles?
2.	Y N N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N N/A	Do custody seals on bottles appear to be tampered with?
3.	Y N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	Y N	Sample received with Chain of Custody?	11.	Y N	Sample received in proper containers?
5.	Y N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
6.	Y N	Was sample received broken?	13.	Y N N/A	Was Internal COC/Workshare received?
7.	Y N	Is sample volume sufficient for analysis?	14.	Y N N/A	Was pH taken by original TestAmerica lab?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Sample Outfall 008 coc lists time as 1515 Labels say 1610 5-7-

log per label per Kay Clay

one 4LP rec'd at pH 7 added 29ml HNO_3 607056 to pH 2

per Kay Clay

Corrective Action:

☐ Client Contact Name: _____ Informed by: _____

☐ Sample(s) processed "as is"

If released, notify: _____

2009

Allied Waste's
Bridgeton Landfill LLC.
Monthly Leachate Meter Reading

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet	Charge Per 100 Cubic Feet	Amount Due
January	1/30/2009	8,689,955	280,321	1,161,758.69	11,617.59	$1.05	$12,198.47
February	2/27/2009	6,349,530	204,824	848,867.65	8,488.68	$1.05	$8,913.11
March	3/31/2009	7,246,619	233,762	968,799.33	9,687.99	$1.05	$10,172.39
April	4/30/2009	6,832,630	220,407	913,453.21	9,134.53	$1.05	$9,591.26
May	6/1/2009	6,839,600	220,632	914,385.03	9,143.85	$1.05	$9,601.40
June	7/1/2009	6,634,714	214,023	886,993.85	8,869.94	$1.05	$9,313.44
July							
August							
September							
October							
November							
December							

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June Monthly Precipitation 6.42 Inches

7/24/2009

OFFICE OF ENVIRONMENTAL COMPLIANCE
MEMORANDUM

MEMO TO: Landfill Files

FROM: Tom Boehm

DATE: June 18, 2009

SUBJECT: **Total Phenols on Field Sampling Requirements**

From past experience, we understand that sampling results from landfills have shown phenols to be present in their wastewater discharge. We have also learned that solid waste landfills generate phenols in the process of concentration/purification of methane. A review of PIMS Field Sampling Requirements shows some of these facilities are subject to analysis for individual phenolic compounds and some for Total Phenols. In an effort to standardize data generation across this industry group, Total Phenols will be added to each of the landfill's Field Sampling Requirements on PIMS, and individual phenols will be deleted. Rock Hill Quarries is the exception to this rule because they are a construction/demolition landfill.

All of the following facilities are under Permit, except for F&J Landfill. Many would need to include KP and SP phenolics as part of annual TTO analysis, but none of the landfills are required to submit periodic analysis for Total Phenols except for Veolia Environmental Services Oak Ridge Landfill.

Cc:

7777704200	BFI SERVICES GROUP INC
9005368901	BFI WASTE SYSTEMS OF NORTH AMERICA INC
0511559802	BRIDGETON LANDFILL LLC
1045916300	F&J LANDFILL C/O MARYLAND HEIGHTS GOLF LLC
9001496101	FRED WEBER INC - NORTH SANITARY LANDFILL
3118692400	ROCK HILL QUARRIES COMPANY
9011283101	VEOLIA ENVIRONMENTAL SERVICES OAK RIDGE LANDFILL INC

M:\memo\ Landfill phenol cleanup w061609.doc

Tom Boehm

Bridgeton Landfill
0571 559802

From: Tom Boehm
Sent: Tuesday, June 09, 2009 11:22 AM
To: John Lodderhose
Cc: Doug Mendoza
Subject: FW: Westlake

- see 5/18/09 Inspection Report page 6

Tracking:

Recipient	Delivery
John Lodderhose	Delivered: 6/9/2009 11:22 AM
Doug Mendoza	Delivered: 6/9/2009 11:22 AM

John,

Recall the Bridgeton Landfill inspection we conducted on May 18.

This is what the pump station guys said in response to my inquiry about the Westlake Wetwell Pump Station behind the Bridgeton Landfill.

As you may recall, the landfill drops their leachate over a fan of sorts to aerate the water to release methane, which they vacuum and send to their flare. They used to recirculate the water and drop it at least a couple of times, but their consultant believed that doing this once was enough.

We discussed the possibility that this change in treatment may have an affect on the wetwell atmosphere....but we don't know because the equipment has been compromised for an unknown amount of time.

I will follow up with them in a month or so to see if they have fixed the monitor and to see if they are seeing any elevated readings on the LEL....and keep you up to date.

tcb

Tom Boehm
Metropolitan St. Louis Sewer District
Engineering/Environmental Compliance
314.436.8761

From: Mark Bright
Sent: Tuesday, June 09, 2009 9:49 AM
To: Tom Boehm
Subject: FW: Westlake

FYI

Thank You,

Mark Bright
Metropolitan St. Louis Sewer District
Operations Supervisor / County Pump
636-861-6735

mgbrig@stlmsd.com

From: Mike Behnen
Sent: Tuesday, June 09, 2009 9:38 AM
To: Mark Bright
Cc: Paul Milton
Subject: RE: Westlake

Mark,
The gas monitor at Westlake is completely out of service.
The pump has drawn water into the sensor.
The pump module is bad and the IR sensor is way out of calibration
Since the pump has not been drawing a sample, no relevant data is available.
I have been researching an alternative sampling method to try and resolve the moisture problem, and have secured at least some of the necessary parts. I will see Mike Waxman ASAP to get a new pump and associated materials.
Mike Behnen

From: Mark Bright
Sent: Monday, June 08, 2009 2:49 PM
To: Mike Behnen; Paul Milton
Subject: Westlake

Mike, have you been able to download anything from the monitor? We need to respond back this week.

Tom Boehm at 8751, he is with OEC.

Thank You,

Mark Bright
Metropolitan St. Louis Sewer District
Operations Supervisor / County Pump
1025 Grand Glaize Parkway
Valley Park, MO 63088
Phone 636-861-6735
Fax 636-861-6721

mgbrig@stlmsd.com

Metropolitan St. Louis Sewer District
Division of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913
Phone: 314.768.6200 www.stlmsd.com

May 19, 2009

Allen Steinkamp
BRIDGETON LANDFILL
13570 St. Charles Rock Road
Bridgeton, MO 63044

RE: Account Number 0039145-8

Dear Mr. Steinkamp:

The Metropolitan St. Louis Sewer District (MSD) routinely reviews analytical data which shows the strength of wastewaters discharged by industrial users. The purpose of this review is to determine which users should pay extra strength surcharges as authorized by Sewer Service Charge Ordinance 12561. The analytical results for BOD, COD, and TSS are used for this purpose. Surcharges become applicable for a user when their average concentrations of BOD, COD, and/or TSS exceed normal concentrations.

Our records show that your discharge has been sampled 11 times during the past 22 months, including seven certified MSD self-monitoring reports as required by your discharge permit, and four MSD routine monitoring samples. The average surcharge concentrations calculated from this sample data are lower than your current billing surcharge concentrations. Therefore, your surcharge concentration will be lowered, resulting in a lower surcharge fee per CcF of wastewater discharged. The data from the 11 samples used to calculate the new averages are enclosed as Attachment 1.

PARAMETER	MSD ORDINANCE NORMAL CONCENTRATIONS (mg/L)	CURRENT BILLING SURCHARGE CONCENTRATIONS (mg/L)	NEW AVERAGE CONCENTRATIONS (mg/L)
BOD	300	576	79
COD	600	1,568	760
TSS	300	231	50

At this time, I will notify our Finance Department of your new average surcharge concentrations. The new average surcharge concentrations will be used to determine the amount of surcharge on future sewer service charges billed to Bridgeton Landfill by MSD.

Should you have any questions, please call me at (314) 436-8716.

Sincerely,
METROPOLITAN ST. LOUIS SEWER DISTRICT

Darin J Lewis
Environmental Engineering Associate

Attachment 1

Sample Data

SP007 & SP008

Sample Date	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Sample Taker
07/20/2007	92	694	29	MSD
08/21/2007	32	700	11	IND
11/29/2007	120	1,300	37	IND
03/13/2008	180	1,000	75	IND
04/04/2008	71	708	78	MSD
05/06/2008	60	920	15	IND
07/16/2008	94	590	49	IND
08/19/2008	65	449	26	MSD
11/04/2008	50	690	180	IND
11/13/2008	46	422	24	MSD
02/12/2009	62	890	31	IND

bv

pc: Roland Biehl

FILE: IU, Bridgeton Landfill, 05115598-02

MEMO TO: Toni McGarry
Finance Department

FROM: Darin Lewis

DATE: May 19, 2009

SUBJECT: Surcharge Changes

We recommend that the new surcharge values below be applied to the following account effective May 2009.

Account No: 0039145-8

Company: **BRIDGETON LANDFILL**

Premise: 13570 St. Charles Rock Road
Bridgeton, MO 63044

	TSS	BOD	COD
New Surcharge Values (mg/L):	50	79	760
Old Surcharge Values (mg/L):	231	576	1.568

This change was initiated by the District. The surcharge values represent the average of 11 composite samples collected between July 20, 2007 and February 12, 2009.

Based on a wastewater discharge of 104,887 CCF, this equates to an estimated annual revenue decrease to the District of $33,863.75.

If you have any questions, please call me at 436-8716.

pc: Roland Biehl
Doug Mendoza
Scott Rehmer

FILE: IU, Bridgeton Landfill, 05115598-02

SURCHARGE CALCULATOR

Date:5/20/2009

File:o:\envcom\surcharg\0511559802-2009.xls

Sum of Discharge Factors: 1.00

Sampling Point: 007&008 — Discharge factor: 1.00 — Flow: #### GPD

	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1	07/20/2007	3.27	8.00	11.27	N/A	92	694	29	6	MSD
2	08/21/2007	N/A			yes	32	700	11	3	IND
3	11/29/2007	N/A			yes	120	1300	37	5	IND
4	03/13/2008	N/A			yes	180	1000	75	5	IND
5	04/04/2008	3.00	8.00	11.00	N/A	71	708	78	6	MSD
6	05/06/2008	N/A			yes	60	920	15	3	IND
7	07/16/2008	N/A			yes	94	590	49	4	IND
8	08/19/2008	3.04	8.00	11.04	N/A	65	449	26	3	MSD
9	11/04/2008	N/A			yes	50	690	180	3	IND
10	11/13/2008	3.26	7.00	10.26	N/A	46	422	24	5	MSD
11	2/12/2009					62	890	31		IND
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	872	8363	555		
					Average:	79	760	50		
					Weighted Average:	79	760	50		

1=Sun, 2=Mon, 3=Tue, 4=Wed, 5=Thur, 6=Fri, 7=Sat

Sampling Point: 002 — Discharge factor: 0.00 — Flow: GPD

	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1		N/A			N/A				N/A	
2		N/A			N/A				N/A	
3		N/A			N/A				N/A	
4		N/A			N/A				N/A	
5		N/A			N/A				N/A	
6		N/A			N/A				N/A	
7		N/A			N/A				N/A	
8		N/A			N/A				N/A	
9		N/A			N/A				N/A	
10		N/A			N/A				N/A	
11		N/A			N/A				N/A	
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	0	0	0		
					Average:	0	0	0		
					Weighted Average:	0	0	0		

Sampling Point: 003 — Discharge factor: 0.00 — Flow: GPD

	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1		N/A			N/A				N/A	
2		N/A			N/A				N/A	
3		N/A			N/A				N/A	
4		N/A			N/A				N/A	
5		N/A			N/A				N/A	
6		N/A			N/A				N/A	
7		N/A			N/A				N/A	
8		N/A			N/A				N/A	
9		N/A			N/A				N/A	
10		N/A			N/A				N/A	
11		N/A			N/A				N/A	
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	0	0	0		
					Average:	0	0	0		
					Weighted Average:	0	0	0		

General Information:

Calculated by: Darin Lewis
Facility name: Bridgeton Landfill
Account No: 511559802
Last recertification date: 5/17/2007

Volume:

First meter reading date: 4/1/2008
Last meter reading date: 4/1/2009
Total Volume: 104887 CcF
RF: 1.00
Annualized volume: 104887 CcF
Monthly volume: 8741 CcF

Surcharge Values:

	Previous	New
BOD:	576 mg/L	79 mg/L
COD:	1,568 mg/L	760 mg/L
TSS:	231 mg/L	50 mg/L

Surcharge Calculations:

BOD in normal wastewater: 300 mg/L
COD in normal wastewater: 600 mg/L
TSS in normal wastewater: 300 mg/L

Ordiannce: 12561

Current BOD rate:	$ 529.56	/ ton	Effective:	1/1/2008
Current COD rate:	$ 264.78	/ ton	Effective:	1/1/2008
Current TSS rate:	$ 218.90	/ ton	Effective:	1/1/2008

Conversion factor (mg/L to tons/CcF): 0.327

	Previous	New
Estimated BOD surcharge:	$ 47,829.95	$ -
Estimated COD surcharge:	$ 83,875.71	$ 13,863.75
Estimated TSS surcharge:	$ -	$ -
BOD/COD:	0.37	0.1

Use zero if BOD or COD = zero

	Previous	New	Change
Estimated annual surcharge:	**$ 47,829.95**	**$ 13,863.75**	**$ (33,966.20)**

Comments:

First pass calculation, all data: ☑
First pass calculation, MSD data: ☐
First pass calculation, IND data: ☐
Calculation, final data: ☐

Water Consumption Data: Reading Date	Consumption
4/1/2009	8489
3/1/2009	11618
2/1/2009	10715
1/1/2009	11979
12/1/2008	13118
11/1/2008	9721
10/1/2008	1027
9/1/2008	10719
8/1/2008	6993
7/1/2008	10554
6/1/2008	9131
5/1/2008	823
4/1/2008	
Total =	104887

SURCHARGE CALCULATOR

Date:5/19/2009

File:o:\envcom\surcharg\0511559802-2009.xls

Sum of Discharge Factors: 1.00

Sampling Point: 007&008 Discharge factor: 1.00 Flow: #### GPD

	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1	07/20/2007	3.27	8.00	11.27	N/A	92	694	29	6	MSD
2										
3										
4										
5	04/04/2008	3.00	8.00	11.00	N/A	71	708	78	6	MSD
6										
7										
8	08/19/2008	3.04	8.00	11.04	N/A	65	449	26	3	MSD
9										
10	11/13/2008	3.26	7.00	10.26	N/A	46	422	24	5	MSD
11										
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	274	2273	157		
					Average:	69	568	39		
					Weighted Average:	69	568	39		

1=Sun, 2=Mon, 3=Tue, 4=Wed, 5=Thur, 6=Fri, 7=Sat

Sampling Point: 002 Discharge factor: 0.00 Flow: GPD

	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1		N/A			N/A				N/A	
2		N/A			N/A				N/A	
3		N/A			N/A				N/A	
4		N/A			N/A				N/A	
5		N/A			N/A				N/A	
6		N/A			N/A				N/A	
7		N/A			N/A				N/A	
8		N/A			N/A				N/A	
9		N/A			N/A				N/A	
10		N/A			N/A				N/A	
11		N/A			N/A				N/A	
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	0	0	0		
					Average:	0	0	0		
					Weighted Average:	0	0	0		

Sampling Point: 003 Discharge factor: 0.00 Flow: GPD

	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1		N/A			N/A				N/A	
2		N/A			N/A				N/A	
3		N/A			N/A				N/A	
4		N/A			N/A				N/A	
5		N/A			N/A				N/A	
6		N/A			N/A				N/A	
7		N/A			N/A				N/A	
8		N/A			N/A				N/A	
9		N/A			N/A				N/A	
10		N/A			N/A				N/A	
11		N/A			N/A				N/A	
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	0	0	0		
					Average:	0	0	0		
					Weighted Average:	0	0	0		

General Information:

Calculated by:	Darin Lewis
Facility name:	Bridgeton Landfill
Account No:	511559802
Last recertification date:	5/17/2007

Volume:

First meter reading date:	4/1/2008	
Last meter reading date:	4/1/2009	
Total Volume:	104887	CcF
RF:	1.00	
Annualized volume:	104887	CcF
Monthly volume:	8741	CcF

Surcharge Values:

	Previous		New	
BOD:	576	mg/L	69	mg/L
COD:	1,568	mg/L	568	mg/L
TSS:	231	mg/L	39	mg/L

Surcharge Calculations:

BOD in normal wastewater:	300	mg/L		
COD in normal wastewater:	600	mg/L		
TSS in normal wastewater:	300	mg/L		
			Ordiannce:	12561
Current BOD rate:	$ 529.56	/ ton	Effective:	1/1/2008
Current COD rate:	$ 264.78	/ ton	Effective:	1/1/2008
Current TSS rate:	$ 218.90	/ ton	Effective:	1/1/2008

Conversion factor (mg/L to tons/CcF): 0.327

	Previous	New
Estimated BOD surcharge:	$ 47,829.95	$ -
Estimated COD surcharge:	$ 83,875.71	$ -
Estimated TSS surcharge:	$ -	$ -
BOD/COD:	0.37	0.12

Use zero if BOD or COD = zero

	Previous	New	Change
Estimated annual surcharge:	$ 47,829.95	$ -	$ (47,829.95)

Comments:

First pass calculation, all data: ☐

First pass calculation, MSD data: ☑

First pass calculation, IND data: ☐

Calculation, final data: ☐

Water Consumption Data:

Reading Date	Consumption
4/1/2009	8489
3/1/2009	11618
2/1/2009	10715
1/1/2009	11979
12/1/2008	13118
11/1/2008	9721
10/1/2008	1027
9/1/2008	10719
8/1/2008	6993
7/1/2008	10554
6/1/2008	9131
5/1/2008	823
4/1/2008	
Total =	104887

SURCHARGE CALCULATOR

Date:5/20/2009

File:o:\envcom\surcharg\0511559802-2009.xls

Sum of Discharge Factors: 1.00

Sampling Point: 007&008 Discharge factor: 1.00 Flow: #### GPD

	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1										
2	08/21/2007	N/A			yes	32	700	11	3	IND
3	11/29/2007	N/A			yes	120	1300	37	5	IND
4	03/13/2008	N/A			yes	180	1000	75	5	IND
5										
6	05/06/2008	N/A			yes	60	920	15	3	IND
7	07/16/2008	N/A			yes	94	590	49	4	IND
8										
9	11/04/2008	N/A			yes	50	690	180	3	IND
10										
11	2/12/2009					62	890	31		IND
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	598	6090	398		
					Average:	85	870	57		
					Weighted Average:	85	870	57		

1=Sun, 2=Mon, 3=Tue, 4=Wed, 5=Thur, 6=Fri, 7=Sat

Sampling Point: 002 Discharge factor: 0.00 Flow: GPD

	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1		N/A			N/A				N/A	
2		N/A			N/A				N/A	
3		N/A			N/A				N/A	
4		N/A			N/A				N/A	
5		N/A			N/A				N/A	
6		N/A			N/A				N/A	
7		N/A			N/A				N/A	
8		N/A			N/A				N/A	
9		N/A			N/A				N/A	
10		N/A			N/A				N/A	
11		N/A			N/A				N/A	
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	0	0	0		
					Average:	0	0	0		
					Weighted Average:	0	0	0		

Sampling Point: 003 Discharge factor: 0.00 Flow: GPD

	Date	Start Time	Type	End Time	24 hr	BOD (mg/L)	COD (mg/L)	TSS (mg/L)	Day	Sampler
1		N/A			N/A				N/A	
2		N/A			N/A				N/A	
3		N/A			N/A				N/A	
4		N/A			N/A				N/A	
5		N/A			N/A				N/A	
6		N/A			N/A				N/A	
7		N/A			N/A				N/A	
8		N/A			N/A				N/A	
9		N/A			N/A				N/A	
10		N/A			N/A				N/A	
11		N/A			N/A				N/A	
12		N/A			N/A				N/A	
13		N/A			N/A				N/A	
14		N/A			N/A				N/A	
15		N/A			N/A				N/A	
16		N/A			N/A				N/A	
17		N/A			N/A				N/A	
18		N/A			N/A				N/A	
19		N/A			N/A				N/A	
20		N/A			N/A				N/A	
					Total:	0	0	0		
					Average:	0	0	0		
					Weighted Average:	0	0	0		

General Information:

Calculated by:	Darin Lewis
Facility name:	Bridgeton Landfill
Account No:	511559802
Last recertification date:	5/17/2007

Volume:

First meter reading date:	4/1/2008	
Last meter reading date:	4/1/2009	
Total Volume:	104887	CcF
RF:	1.00	
Annualized volume:	104887	CcF
Monthly volume:	8741	CcF

Surcharge Values:

	Previous		New	
BOD:	576	mg/L	85	mg/L
COD:	1,568	mg/L	870	mg/L
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Surcharge Calculations:

BOD in normal wastewater:	300	mg/L		
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TSS in normal wastewater:	300	mg/L		
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Current COD rate:	$ 264.78	/ ton	Effective:	1/1/2008
Current TSS rate:	$ 218.90	/ ton	Effective:	1/1/2008

Conversion factor (mg/L to tons/CcF): 0.327

	Previous	New
Estimated BOD surcharge:	$ 47,829.95	$ -
Estimated COD surcharge:	$ 83,875.71	$ 23,395.08
Estimated TSS surcharge:	$ -	$ -
BOD/COD:	0.37	0.1

Use zero if BOD or COD = zero

	Previous	New	Change
Estimated annual surcharge:	**$ 47,829.95**	**$ 23,395.08**	**$ (24,434.87)**

Comments:

First pass calculation, all data: ☐

First pass calculation, MSD data: ☐

First pass calculation, IND data: ☑

Calculation, final data: ☐

Water Consumption Data: Reading Date	Consumption
4/1/2009	8489
3/1/2009	11618
2/1/2009	10715
1/1/2009	11979
12/1/2008	13118
11/1/2008	9721
10/1/2008	1027
9/1/2008	10719
8/1/2008	6993
7/1/2008	10554
6/1/2008	9131
5/1/2008	823
4/1/2008	
Total =	104887

Darin Lewis

From: Toni McGarry
To: Darin Lewis
Sent: Friday, May 22, 2009 7:58 AM
Subject: Read: Bridgeton Landfill surcharge finance memo.

Your message

To: Doug Mendoza; Roland Biehl; Scott Rehmer; Toni McGarry
Subject: Bridgeton Landfill surcharge finance memo.
Sent: 5/22/2009 7:58 AM

was read on 5/22/2009 7:58 AM.

SR

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL FACILITY REINSPECTION REPORT

Company: Bridgeton Landfill LLC Account #: 0511559802
Premise Address: 13570 St Charles Rk Rd Zip Code: 63044
MSD Classes: SIU ☒ CIU ☐ Surcharge ☒ Potential Toxic Waste ☒ Non-Toxic Waste ☐
No Process Flow ☐ Multi-User ☐ Special Handling/Billing ☒
Company Representative: Randy Meibaum
Title: Operations Lead Phone#: 314.739.1919
Inspector: T. Boehm
Others Present: Dave Vasbinder-Env Mngr; John Lodderhose-MSD
Inspection Date: 5/18/09 Time: From 08:30 am To 10:30 am (Last Insp. 3/6/08)

NOTE: ALL ITEMS ARE TO BE COMPLETED BASED ON EVENTS SINCE LAST INSPECTION. ANSWERS ARE BASED ON INFORMATION OBTAINED OR PROVIDED BY COMPANY DURING INSPECTION, AS WELL AS INFORMATION IN FILE.

***** DATABASE ALSO UPDATED WITH APPROPRIATE CHANGES - see attached database reports *****

1. A. ARE THERE ADDITIONAL NON-STORMWATER ACCOUNT NUMBERS? Yes☐ No☒
   List them, note any changes: _____
   B. Did all acct no's have water usage on PIMS? Yes☐ No☒
   C. If no to B, explain: The acct is active in ECIS with usage volumes up to the present, but PIMS has usage figures that end August of 2007; the DRVR field in ECIS is not complete, so after the field is complete, ECIS will share information with PIMS upon the next data exchange;

2. PROCESSES & CLEANUP/WASHDOWN:

	Cont/ Batch		Water Used?	Frequency of discharge	Sample pt.
Closed sanitary landfill operations- leachate discharge through on site vault to Westlink Pump Station	Cont		Yes	Daily, Precipitation dependent	008,007> san sewer
Trash transfer station washdown weekly	Batch		Yes	Quarterly	008,007> san sewer
On-site vehicle maintenance and occasional wash as needed	Batch		Yes	2-3X/month	008,007> san sewer
	(None)		N/A		
	(None)		N/A		
	(None)		N/A		

3. PRETREATMENT (other than grease traps) - describe:

	Sample pt.
Equalization, course screening, aeration	008,007

4. DOES COMPANY HAVE ANY GREASE TRAPS? Yes☐ No☒
If yes: A. List sample points: _____
B. What is the frequency for cleaning & maintenance? _____
C. Are enzymes (not bacteria) used in traps? Yes☐ No☐
D. If yes to C, was co. told to stop or switch to approved bacteria? Yes☐ No☐
E. Was co. informed that MSD performs separate grease trap inspections? Yes☐ No☐

5. HAS COMPANY CONSTRUCTED NEW BLDGS/ADDITIONS WITH SEWERS SINCE LAST INSP? Yes☐ No☒
If yes: A. Ask company: Did they notify MSD's Plan Review group? Unknown☐ Yes☐ No☐
B. If no or unknown, has inspector notified Plan Review group? Yes☐ No☐
C. Comments: _____

(01/09)

MSD 024409

6. HAS COMPANY BEGUN DISCHARGING ANY NEW POLLUTANTS SINCE THE LAST INSP? Yes☐ No☒

If yes: A. List pollutants & process: _____

B. Will MSD STP exceed existing NPDES discharge limit(s)? Yes☐ No☐

C. Will MSD STP's discharge exceed 0.1 mg/l for any new pollutant? Yes☐ No☐

(MSD must notify MDNR if B or C is yes and discharge will continue.)

D. Comments: _____

7. ARE THERE ANY FEDERALLY REGULATED (40 CFR 405-471) OPERATIONS? Yes☐ No☒

If yes: A. List reg. & describe (including any discharge):

_____

8. DOES CATEGORICAL WASTEWATER COMBINE WITH NON-CAT. WW PRIOR TO SAMPLING? Yes☐ No☒

If yes: A. At which points? _____

B. Current applied factor: _____ Is it correct? Yes☐ No☐

C. If no, list correct factor/explain? _____

9. IS ANY WASTEWATER SUBJECT TO PRODUCTION OR MASS BASED STANDARDS? Yes☐ No☒

If yes: A. At which points? _____

B. Since calculation of the current limits, has the long term avg production rate or discharge volume changed by 20% or more? Yes☐ No☐

C. If yes to B, explain: _____

10. ARE ANY RADIOACTIVE MATERIALS HANDLED? Yes☐ No☒

If yes: A. Describe operations & disposal: There are 2 radiation waste cells in the landfill; they are not lined and no leachate is collected from these cells; see comments;

B. Does company have MSD authorization for disposal to sewer? NA☐ Yes☐ No☐

C. Most recent authorization date: _____

D. Amount discharged in most recent complete calendar year: _____

11. DOES PROCESS or P&E WASHDOWN WATER USE APPEAR EXCESSIVE? Yes☐ No☒

A. Explain how use was verified & any needed changes:

Very little water used in P+E wash; PIMS changed to reflect quarterly discharge;

12. BASED ON OBSERVATIONS DURING INSPECTION, DOES COMPANY APPEAR TO HAVE SOME WATER THAT IS NOT DISCHARGED TO SEWER? Yes☒ No☐

If yes: A. Describe: Evaporation from dust control;

B. Was "Return Factor Program" brochure given to company? Yes☒ No☐

(regardless of whether some water is not discharged to sewer)

13. HAS COMPANY EXCEEDED ORDINANCE DISCHARGE LIMITS SINCE LAST INSPECTION OR WITHIN THE LAST 12 MONTHS (if last insp <12 months ago)? Yes☒ No☐

If yes: A.

Pollutant	When	Sample Points	Is problem resolved? Yes/No	Describe
Oil/grease	04/04/08	007,008	Yes	They are unaware of the origin of this violation; they took 3 samples, all of which were less than detection limit;
			N/A	
			N/A	
			N/A	
			N/A	

B. Comments: _____

14. HAS COMPANY EXCEEDED CATEGORICAL PRETREATMENT LIMITS SINCE THE LAST INSPECTION OR WITHIN THE LAST 12 MONTHS? NA☒ Yes☐ No☐

If yes: A.

Pollutant	When	Sample Points	Is problem resolved? Yes/No	Describe
			N/A	
			N/A	
			N/A	
			N/A	
			N/A	

B. Comments: _____

15. HAVE THERE BEEN ANY PROBLEM DISCHARGES SINCE LAST INSPECTION? Yes☐ No☒

If yes: A. Upsets? ☐ Bypasses of pretreatment facilities?☐
Spills? ☐ Slug discharges? ☐ Other? _____
B. Explain any marked: _____

16. COULD SPILLS OR LEAKS OF PROCESS TANKS, STORED WASTES, OR STORED CHEMICALS EASILY REACH SANITARY SEWERS OR STORM DRAINS? Yes☐ No☒

If yes: A. What needs to be done?

_____

If no: B. How are they controlled?
Oils and diesel are contained; no other volumes of concern; vast areas of dirt would absorb any spillage;

17. BASED ON OBSERVATIONS DURING INSPECTION, ARE THERE ANY AREAS WHERE COMPANY ACTIVITIES APPEAR TO IMPAIR STORMWATER RUNOFF? Yes☐ No☒

If yes: A. Describe: _____
B. What needs to be done? _____
C. Was "Illicit Stormwater Discharges" brochure given to company? (regardless of whether there are any problem areas) Yes☒ No☐

18. DOES COMPANY HAVE ANY SPILL CONTROL OR SLUG DISCHARGE CONTROL PLANS? Yes☒ No☐

If yes: A.

	Title	Last Update	Update needed? Explain if yes
1.	SPCCP	1/1/03	No
2.			N/A

B. Are any Plans needed (in addition to those listed in Part A)? Yes☐ No☒
(If yes, write company and request)

19. DOES COMPANY HAVE ANY MAINTENANCE SHOP PARTS WASHERS? Yes☒ No☐

If yes: A. Parts washer solvent name: Petroleum naphtha
B. Priority pollutants (or "none"): Typically BTEX
C. How is spent solvent disposed? Hauled
(Parts washer solvents are not included in database's priority pollutants list, nor monitored for unless conditions show potential discharges)

20. ARE ANY ORGANICS OR SOLVENTS USED (OTHER THAN IN PARTS WASHERS)? Yes☒ No☐

If yes: A.

Solvent name/ components	Used for?	413/433/469 Process?	How disposed?	Priority Pollutant?
Diesel	Fuel	Yes☐ No☒	Burned	Yes☒ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐
		Yes☐ No☐		Yes☐ No☐

21. DOES COMPANY HAVE A 413/433/469 SOLVENT MANAGEMENT PLAN? Yes☐ No☒

If yes: A. Is it part of a Spill/Slug Control Plan listed above? Yes[1.☐ 2.☐] No☐

B. If no to A, date of last update for SMP: ____

C. Is there a copy of the Spill/Slug Plan or SMP in the files? Yes☐ No☐

D. Does SMP address all 413/433/469 solvents? Yes☐ No☐

(If no to C or D, write company and require submittal and/or update)

22. HAZARDOUS WASTES:

A. Was the company informed/reminded that solid & hazardous waste management regulations (RCRA) exist and may potentially apply to industrial users? Yes☒ No☐

B. Is there any discharge to the sewers of hazardous waste which has not been previously reported to MSD (under 40 CFR 403.12(p))? Yes☐ No☒

C. If yes to B, list haz wastes: ____

D. Was the company provided with a "Public Notice/Haz. Waste Discharge Notification" form for the above regulations? (regardless of whether there are any discharges) Yes☒ No☐

E. Comments: ____

23. ARE EMERGENCY NOTIFICATION PROCEDURES POSTED THAT INCLUDE MSD CONTACTS? Yes☒ No☐

A. Was company provided notification cards & told to post where emergency response personnel can locate them? Yes☒ No☐

(Must post if co. generates process wastewater or stores chemicals of concern)

24. IS COMPANY REQUIRED TO SELF-MONITOR ANY OF THEIR DISCHARGES? Yes☒ No☐

If yes: A. Is requirement contained in permit ☒ or other document ☐.

B. If other document, date & description: ____

C. How frequently is sampling required? Quarterly

D. How frequently are reports required? Quarterly

E. Have reports been on-time, complete & signed by proper person? Yes☒ No☐

F. If no, explain: ____

25. DOES COMPANY SELF-MONITOR ITS WASTEWATER DISCHARGE? Yes☒ No☐

If yes: A. Is the self-monitoring required by MSD? Yes☒ No☐

B. Are representative grab/comp samples collected? Yes☒ No☐

C. Does sample collection time period match company's production shifts (is it representative)? Yes☒ No☐

D. Are EPA-approved 40 CFR 136 wastewater test methods used? Yes☒ No☐

E. If no to B, C, or D, explain needed changes: 24 hour comps used for this 24 hour process;

26. DOES CO. CONTINUOUSLY MONITOR AT SAMPLE POINT AND KEEP A PERMAENENT RECORD FOR: pH ☐, TEMP ☐, LEL ☐? Yes☐ No☒

If yes: A. At which SPs? ____

B. Does company submit quarterly summaries? Yes☐ No☐

C. If no, explain: They monitor for LEL at their leachate treatment tank;

27. DOES MSD SPLIT SAMPLES WITH THE COMPANY? Yes☐ No☒

If yes: A. Is company having the samples analyzed Yes☐ No☐

B. How does company insure proper preservation, holding times & analytical methods? ____

C. Has company submitted results of all split sample analyses since the last insp? Yes☐ No☐

D. Have results been submitted within 28 days of the collection's calendar quarter? Yes☐ No☐

E. If no to C, or D, explain: ____

F. Does company still want to split samples? Yes☐ No☐

G. Comments: ____

28. IS COMPANY UNDER ANY ENVIRONMENTAL ENFORCEMENT ORDERS OR REQUIREMENTS TO SUBMIT COMPLIANCE SCHEDULE REPORTS? Yes☐ No☒

If yes: A. Type and date: ____

B. Have the reports & actions been on-time & complete? Yes☐ No☐

C. If no, explain: ____

29. ASK COMPANY: IS CO. IN COMPLIANCE W/APPLICABLE NESHAP REGS FOR WW DISCHARGES? Yes☒ No☐
[Some MDNR-issued Title V air permits for specific processes allow pre-approved WW discharge.] [City/County-issued air permits are not NESHAP permits.]
If no: A. Describe: _____
B. Was MDNR Air Pollution Control informed? (must be done) Yes☐ No☐

30. DOES COMPANY RETAIN ALL WASTEWATER RECORDS FOR AT LEAST 5 YEARS? Yes☒ No☐
If no: A. How long does company retain records? _____
B. Was company told to retain for at least 5 years, per ordinance? Yes☐ No☐
C. Where are they kept? In manager's office;

31. DO MSD CLASSIFICATIONS NEED TO BE REVISED? Yes☐ No☒
If yes: A. Indicate correct classifications:
SIU ☐ CIU ☐ Surcharge ☐ Potential Toxic Waste ☐ Non-Toxic Waste ☐
No Process Flow ☐ Multi-User ☐ Special Handling/Billing ☐
B. Explain changes: _____

32. SAMPLE POINTS

						DJ(y/n)
SP #	008	Fed.Reg.		Components:	Leachate, P+E wash (of transfer station)	No
SP #	007	Fed.Reg.		Components:	Same as 008	No
SP #		Fed.Reg.		Components:		N/A
SP #		Fed.Reg.		Components:		N/A
SP #		Fed.Reg.		Components:		N/A

33. ARE ANY SAMPLE POINTS TRAPPED VENTS? Yes☐ No☒
If yes: A. List SPs: _____
B. Was co. informed that T-vents are preferred, and told why? Yes☐ No☐

34. ARE DISCHARGES AT ANY SPs SMALL/IRREGULAR ENOUGH TO ALLOW GRAB SAMPLES? Yes☐ No☒
If yes: A. List SPs and reasons: _____

35. ARE THERE ANY UNSAMPLED DISCHARGES? (list each lateral separately) Yes☐ No☒

Dummy SP #		Components:	See comments
Dummy SP #		Components:	

36. DO ANY SAMPLE POINTS (including Unsampled/Dummy SPs) RECEIVE STORMWATER? Yes☒ No☐
If yes: A. List Sample Points: Yes, indirectly through percolation/infiltration through the landfill;

37. WERE ALL SAMPLE POINTS (except Dummy SPs) OPENED & INSPECTED? No SPs☐ Yes☐ No☒
A. If any SPs cannot be located or opened, explain: I did not have a key for 007; 008 was in good condition;
B. If any SP descript's need to be changed, explain: _____
C. Was ANY grease or other problem/debris observed in any SP? Yes☐ No☒
D. If yes to C, list SPs & describe: There is no SP to look into, it is defined as a hose off of a larger pipe above ground on the side of their leachate tank within a 6' containment;
E. If yes to C, was company directed to take corrective actions? Yes☐ No☐

38. REVIEW THE SAMPLE POINT MAP! Last map revision date: 1/27/09
A. Is the map correct and accurate in all its details? Yes☒ No☐
B If no, what changes are needed: _____

39. DO INSTRUCTIONS FOR "Contact Prior to Sampling" OR FIELD VISIT "Special Instructions" NEED REVISION? Yes☐ No☒

If yes: A. List needed changes: _____

USE THIS SPACE FOR ANY OTHER COMMENTS/OBSERVATIONS PERTINENT TO YOUR INSPECTION OF THIS SITE.

- They began covering the radioactive waste cells but MoDNR wanted someone on site during the process to verify that the process was being carried out by the contractor correctly, so they have temporarily ceased the operation;
- Other companies that rent space at this site collect and haul their own wastewater; this premise is not considered multi-oc because the tenants wastewater does not discharge to our system with that from the landfill;
- Contact explained that the leachate is pumped to the top of the tank and dropped over fan blades for the purpose of releasing methane which is collected via vacuum and sent to their flare; this is why I picked aeration as another form of PT; he stated they used to recirculate it for another drop but their consultant stated it may not be needed based upon the air monitoring they do in the tank; John and I were curious as to the effect this would have on the pump station wet well that this wastewater flows to; I will contact our pump station group to see if they are monitoring the Westlink Pump Station wetwell and see if they have found any changes in the quality of the atmosphere due to this action; a separate memo will be sent to file;
- As stated in Q.10, the radioactive cells within the landfill are not lined so no leachate is collected from these areas; quarterly sampling requires analysis for various radioactive constituents to be reported with the other parameters;
- Sanitary to collection tank and hauled;

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL DATA SHEET - FACILITY INFORMATION

INDUSTRY NAME **BRIDGETON LANDFILL LLC**
PRIMARY MSD ACCOUNT NO. **0511559802**

Premise Address 13570 St. Charles Rock Road
Bridgeton MO. 63044

INDUSTRIAL USER CLASSIFICATIONS

03/06/1997	SIU
05/17/2007	SCH
03/06/1997	PTW
01/19/2006	SPC

WUNNENBERG INFO.

Base Map 10O3
Wun: St. Louis City & Co.
Grid: W 09 Page 7

SIU CRITERIA

PR25 Process Disch => 25,000 GPD

GENERAL INFORMATION

Office Mailing Address
13570 St. Charles Rock Road
Bridgeton, MO. 63044

Billing Address
13570 St. Charles Rock Road
Bridgeton, MO. 63044

INSPECTION INFORMATION

Next Due	Insp Rslt	
05/18/2009	RIN	Tom Boehm

PERMIT INFORMATION

Issue Date: 12/01/2005
Expire Date: 11/30/2010
Extended Date: 10/14/2006
Writer Fabian Grabski
Issue Date: 12/01/2005
Expire Date: 11/30/2010
Extended Date: 09/17/2007
Writer Fabian Grabski
Issue Date: 09/18/2007
Expire Date: 11/30/2010
Extended Date:
Writer Scott Rehmer

IUQ INFORMATION

IUQ Recvd Date: 06/12/2000
Reviewer: Fabian Grabski
IUQ Recvd Date: 06/06/2005
Reviewer: Martin Blecha

CONTACTS

BILL	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext. 4464
FLD1	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext. 4464
	David Vasbinder	Environmental Manager	CELL	(314) 249-9404 Ext.
FLD2	Rick Walker	Operations Manager	OFF	(314) 739-1919 Ext. 101
FLD3	Randy Meibaum	Enviromental Tech	OFF	(314) 739-1919 Ext. 4465
	Randy Meibaum	Enviromental Tech	CELL	(314) 393-2613 Ext.
OFF1	David Vasbinder	Environmental Manager	OFF	(314) 739-5099 Ext. 4464
	David Vasbinder	Environmental Manager	CELL	(314) 249-9404 Ext.
OFF2	Rick Walker	Operations Manager	OFF	(314) 739-1919 Ext.
OFF3	Randy Meibaum	Enivironmental Tech	OFF	(314) 739-1919 Ext. 4465
	Randy Meibaum	Enivironmental Tech	CELL	(314) 393-2613 Ext.

OPERATIONAL INFORMATION

Work Days: 5

				S	M	T	W	T	F	S
1	2	05:00AM	10.0	N	Y	Y	Y	Y	Y	N

Total Emp: 2 **Hrs:** 10.0

OTHER AGENCIES INFORMATION

11/28/1996	MDNR - Hazardous Waste Program	00925
06/29/1997	MDNR - Water Pollution Control Program	MO-0112771
06/30/1997	EPA - Hazardous Waste Program	MOD-D980741805
09/28/2005	MSD - Billing Account Number	00039145

NON-SEWERED WASTE

On-Site Storage N **On-Site Disposal** N **Off-Site Disposal** Y

05/18/2009	Equipment Oils and/or Grease	Unknown	GPY

COMMENTS

RAW MATERIALS

EFF DATE	MATERIAL_DESCRIPTION	QUANTITY	UNIT

SIC INFORMATION

SIC	DESCRIPTION
4953	Refuse Systems

PRODUCTS

EFF DATE	DESCRIPTION	UNIT	AVG_PROD	MAX_PROD
05/07/2004	Closed lanfill			

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL DATA SHEET - FACILITY INFORMATION

INDUSTRY NAME **BRIDGETON LANDFILL LLC**
PRIMARY MSD ACCOUNT NO. **0511559802**

Premise Address 13570 St. Charles Rock Road
Bridgeton MO. 63044

SEWER ACCOUNTS

Sewer Accounts
0511559802

WATER CONSUMPTION AND WASTEWATER DISCHARGE

Start Date = 01/01/2008 12:00:00AM **End Date =** 12/31/2009 12:59:59PM **Wdays** **Cdays**

Acct. No.			Consumption CCF's	Consumption Gallons			Discharge Gal/ Wday	Discharge Gal/ Cday
			0	0				
RF	1.00	Acct. Total	0	0	0	0	1	1
		Facility Total	0					

CONNECTION and SAMPLE POINT INFORMATION

LATERAL NO.	Lateral Type	DSMH	Treatment Area	Missouri River
01	Sanitary Or Combined	10O3 014S	Trunk Sewer	Bonfils Pump Station

Description Leachate Pump Vault SW to MSD Westlink Pump Station

Sewer Route S to Westlink Pump Station # 811, S to Bonfils Trunk to FM East to POTW

SAMPLE POINT NO. 007 Ordinance **NPDES Outfall No.**

Description 14" pipe into Westlink Pump Station Wetwell, on S side

Discharge Components	Process Description	Avg Flow	Unit	Max Flow	Unit	RUD	Effective Date
Landfill Leachate	Same waste that flows through SP008	250,000	GPD		GPD	D	6/6/05
Plant & Equipment Wash	Transfer station and vehicle washdown	2,000	GPM	2,000	GPM/D	D	1/16/07
	Total Flow Avg =	**252,000**		**Max =**	**2,000**		

SAMPLE POINT NO. 008 Ordinance **NPDES Outfall No.**

Description 1/2" flexible sampling hose 5' above grade off of an 8" discharge pipe on N side of AST

Discharge Components	Process Description	Avg Flow	Unit	Max Flow	Unit	RUD	Effective Date
Landfill Leachate	Same waste that flows through SP007	250,000	GPD		GPD	D	8/9/07
Plant & Equipment Wash	Transfer station and vehicle washdown	2,000	GPM	2,000	GPM/D	D	8/9/07
	Total Flow Avg =	**252,000**		**Max =**	**2,000**		

PRETREATMENT TYPES

SP	EFF_DATE	TYPE	DESCRIPTION
005	05/29/1998	DC1	Aeration
005	05/29/1998	DC3	Biological Treatment
007	08/09/2007	DC22	Equalization
007	08/09/2007	DC11	Coarse Screening
007	05/18/2009	DC1	Aeration
008	08/09/2007	DC22	Equalization
008	08/09/2007	DC11	Coarse Screening
008	05/18/2009	DC1	Aeration

PRIORITY POLLUTANTS

Pollutant Description	Status	Pollutant Description	Status	Pollutant Description	Status
Naphthalene	KP	Cyanide (Total)	SP	Asbestos (Fibrous)	SP
Antimony (Total)	SP	Silver (Total)	SP	Selenium (Total)	SP
Copper (Total)	KP	Cadmium (Total)	SP	Beryllium (Total)	SP
Zinc (Total)	KP	Thallium (Total)	SP	Nickel (Total)	KP
Mercury (Total)	SP	Lead (Total)	SP	Chromium (Total)	KP
Arsenic (Total)	KP	Phenol	KP	Toluene	SP

EXTRA STRENGTH SURCHARGE INFORMATION

05/19/2009	BOD	79
05/19/2009	COD	50
05/17/2007	TSS	231

PIMS FACILITY CONTACTS

For Account Number Selecte **0511559802** **BRIDGETON LANDFILL LLC**

Located at 13570 St. Charles Rock Road
Bridgeton MO 63044

Address Type

Contact Type	Contact Name		Contact Title	Phone Type	Number	Ext.
Billing Address						
Billing Contact	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	4464
Office Mailing Address						
Office Contact - Primary	David	Vasbinder	Environmental Manager	CELL	(314)249-9404	
Office Contact - Primary	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	4464
Office Contact 1st Alt	Rick	Walker	Operations Manager	OFF	(314)739-1919	
Office Contact 2nd Alt	Randy	Meibaum	Enivironmental Tech	CELL	(314)393-2613	
Office Contact 2nd Alt	Randy	Meibaum	Enivironmental Tech	OFF	(314)739-1919	4465
Premise Address						
Field Contact - Primary	David	Vasbinder	Environmental Manager	CELL	(314)249-9404	
Field Contact - Primary	David	Vasbinder	Environmental Manager	OFF	(314)739-5099	4464
Field Contact 1st Alt	Rick	Walker	Operations Manager	OFF	(314)739-1919	101
Field Contact 2nd Alt	Randy	Meibaum	Enviromental Tech	CELL	(314)393-2613	
Field Contact 2nd Alt	Randy	Meibaum	Enviromental Tech	OFF	(314)739-1919	4465

PIMS
REPORT OF FIELD SAMPLING REQUIREMENTS
BRIDGETON LANDFILL LLC

Account No Entered **0511559802**

SPN	PREMISE ADDRESS	CITY	ST	ZIP
	13570 St. Charles Rock Road	Bridgeton	MO	63044

007 Project Code: IM = IPD - Company - MSD

Pollutant Group	Poll Code	Pollutant Description	Frequency	Sample Type	End Date
	T205000	Ammonia (as N)	Once/3 mo	Grab	06/30/2009
	T208000	Biochemical Oxygen Demand (5 Day)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T213000	Chemical Oxygen Demand	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T234000	Oil and Grease (Total)	Once/3 mo	Grab	06/30/2009
	T237000	pH	Once/3 mo	Grab	06/30/2009
	T247000	Temperature	Once/3 mo	Grab	06/30/2009
	T256000	Total Suspended Solids	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T304000	Antimony (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T306000	Arsenic (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T317000	Beryllium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T327000	Cadmium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T335000	Chromium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T339000	Copper (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T340000	Cyanide Amenable to Chlorination	Once/3 mo	Grab	06/30/2009
	T368000	Lead (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T370000	Mercury (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T377000	Nickel (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T391000	Selenium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T393000	Silver (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T396000	Thallium (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T403000	Zinc (Total)	Once/3 mo	Comp-Time 04 Hrs	06/30/2009
	T264000	1,1-Dichloroethane	Once/year	Grab	03/31/2010
	T302000	Anthracene	Once/year	Comp-Time 04 Hrs	03/31/2010
	T330000	Chlorobenzene	Once/year	Grab	03/31/2010
	T331000	Chloroethane	Once/year	Grab	03/31/2010
	T355000	Ethylbenzene	Once/year	Grab	03/31/2010
	T371000	Methylene Chloride	Once/year	Grab	03/31/2010
	T383000	PCB - 1248	Once/year	Comp-Time 04 Hrs	03/31/2010
	T385000	PCB - 1260	Once/year	Comp-Time 04 Hrs	03/31/2010
	T388000	Phenol	Once/year	Comp-Time 04 Hrs	03/31/2010
	T397000	Toluene	Once/year	Grab	03/31/2010
	T399000	Trans-1,2-Dichloroethene	Once/year	Grab	03/31/2010
	T400000	Trichloroethene	Once/year	Grab	03/31/2010
	T401000	Vinyl Chloride	Once/year	Grab	03/31/2010
Ordinance / 413/433	T999000	Total Toxic Organics	Once/year	Grab	03/31/2010

HERST & ASSOCIATES, INC.®

Global Presence
Personal Attention

5/19/2009
MSW

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

April 23, 2009

Dear Mr. Rehmer:

First Quarter 2009 Self Monitoring Report,
Bridgeton Landfill, LLC
Discharge Permit No. 0511559802-1

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the First Quarter 2009 leachate sampling and analysis report for the Bridgeton Landfill. On February 11th, 2009 and February 12th, 2009, Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-1. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the First Quarter 2009 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for January, February, and March 2009.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Brandon Killion
Staff Environmental Scientist

For Ward E. Herst, R.G.
Managing Director

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

Cc: *David Vasbinder, Republic Services, Inc.*
Rick Walker, Bridgeton Landfill Operations Manager
John Haasis, St. Louis County Department of Health
Vickie Heberlie, Missouri Department of Natural Resources

Attachments: *Attachment 1 – Metropolitan St. Louis Sewer District Industrial User Self Monitoring Reports*
Attachment 2 – Calculation of Discharged Activity
Attachment 3 – Heritage Environmental Laboratories, LLC, Laboratory Analytical Report
Attachment 4 – TestAmerica, Inc. Laboratory Analytical Report
Attachment 5 – Monthly Leachate Discharge Volume Records Provided by Bridgeton Landfill

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: [X] (Jan-Mar) [ ] (Apr-Jun) [ ] (July-Sept) [ ] (Oct-Dec)

Samples Collected By: Rachael Haynes, Brandon Killion, and Nick Bauer of Herst & Associates, Inc.

Analyses Performed By: Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc.

Part II: Analytical Results of Self Monitoring

MSD Sample Point Reference Numbers →		008						
Dates on which samples were collected →		2/11/2009 and 2/12/2009						
Times at which samples were collected →		1200, 1600, 0815, 1155						
Parameter	**Limit**	**Record Sample Types (G, C, M, or E) and Results Below G=grab, C=composite, M=measured flow, E=estimated flow**						**Units**
Flow	***	E	230,250					GPD
Biochemical Oxygen Demand	****	C	62					mg/L
Chemical Oxygen Demand	****	C	890					mg/L
Oil and Grease	200	G	ND < 5.0					mg/L
pH Acidic (<7)	5.5	G						SU
pH Basic (≥7)	11.5	G	8.03					SU
Temperature	60	G	14.7					°C
Total Suspended Solids	****	C	31					mg/L
Ammonia (as N)	*****	C	160					mg/L
Arsenic (Total)	0.4	C	NR					mg/L
Cadmium (Total)	0.7	C	NR					mg/L
Chromium (Total)	5.0	C	NR					mg/L
Copper (Total)	2.7	C	0.070					mg/L
Lead (Total)	0.4	C	NR					mg/L
Mercury (Total)	0.01	C	NR					mg/L
Nickel (Total)	2.3	C	0.022					mg/L
Zinc (Total)	3.0	C	0.032					mg/L
Total Toxic Organics	5.52	G	NR					mg/L
Gross Alpha	*****	C	U					pCi/L
Gross Beta	*****	C	73 ± 13					pCi/L
Gross Gamma (as Cesium-137)	*****	C	U					pCi/L
Radium - 226	10	C	4.24 ± 0.58					pCi/L
Radium – 228	30	C	1.61 ± 0.43					pCi/L
Uranium (Total)	*****	C	U					µg/L

Notes:
ND = Non-Detect
NR = Not required during this quarterly event
U = Result is less than the sample detection limit

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Part III: Special Certification Statements

Based on the special conditions contained in your discharge permit you may be required to certify one of more of the following. Please review your permit and **place your initials in the boxes next to those certifications which are applicable to your facility**. If your permit contains no Special Conditions, then none of the certifications in **Part III** apply to you. **Go on to Part IV.**

A. If your permit special conditions waive monitoring at any sample point(s) specified in your permit, you are required to make the following certification:

☐ I certify, since the last discharge monitoring report, there has been no change in the character of the wastes discharged at sampling points _____.

B. If your permit special conditions waive monitoring at active connection points which are not specified as sample points in your permit, you are required to make the following certification:

☒ I certify, since the last discharge monitoring report, there has been no change in the character of wastes discharged at those active connection points which are not specified in my permit.

C. If your permit special conditions waive monitoring at inactive connection points, you are required to make the following certification:

☐ I certify, since the permit issue date, there has been no change in the status of connection points identified as inactive. These points remain inactive and no discharge occurred during the period covered by this report.

D. If your permit special conditions authorize grab sample collection in lieu of composite sampling at any sample point(s), you are required to make the following certification:

☐ I certify the grab sample results in this report accurately represent our average daily discharge at sample points(s) _____.

E. If your permit special conditions prohibit discharge of wastes which are subject to certain categorical pretreatment standards, you are required to make the following certification:

☐ I certify, since the last discharge monitoring report, there has been no discharge of wastes which are subject to pretreatment standards in 40 CFR _____.

F. Discharges subject to Pharmaceutical Categorical Standards (40 CFR 439) can be exempted from limitations and monitoring for Total Cyanide at the Pharmaceutical sample point(s) subjected to the following certification:

☐ I certify, since the last discharge monitoring report, cyanide has not been used or generated in any pharmaceutical manufacturing process subject to Categorical Standards in 40 CFR 439.

G. Discharges Subject to Categorical Standards for Electroplating (40 CFR 413), Metal Finishing (40 CFR 433) or Electrical & Electronic Components (40 CFR 469) can be exempted from TTO monitoring only at the Electroplating, Metal Finishing or Electrical & Electronic Components sample point(s) subject to the following certification:

☐ Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to MSD.

Part IV: Special Certification Statements

Initial the box for statement A if it applies to you. **Everyone must complete the information under statement B and sign this report.**

A. Discharges at sample points subject only to MSD Ordinance limits can be exempted from TTO monitoring subject to the following certification:

☐ In lieu of monitoring for TTO at sample point(s) _____, I certify that to the best of my knowledge and belief, no toxic organics have been used at this premise or discharged into the wastewaters since filing of the last discharge monitoring report.

B. **Discharge Monitoring Report Certification**

I certify under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system designated 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.

Print or type name of signing official: Dave Vasbinder

Title: Environmental Manager Telephone: 314-739-5099 x 4464

Signature: _____ Date: 4/22/09

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APR 28 2009

DIVISION OF
ENVIRONMENTAL COMPLIANCE

METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: [X] (Jan-Mar) [ ] (Apr-Jun) [ ] (July-Sept) [ ] (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	Not Applicable – Constituent Not Detected
Gross Beta	6.16×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	3.58×10^8
Radium - 228	1.36×10^8
Total Activity Discharged :	6.65×10^9

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

[X] I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: Dave Vasbinder

Title: Environmental Manager

Telephone: 314-739-5099 ext 4464

Signature: [signature]

Date: 4/22/09

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Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.A.2 of the Bridgeton Landfill MSD Permit (Permit 05115598-02), each quarterly discharge report shall specify the activity discharged to the sewer system by permitted radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the First Quarter 2009 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\text{Discharged Activity} = \text{Activity Concentration} \times \text{Discharged Volume}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the First Quarter 2009 monitoring period.

Constituent	Result	Units
Gross Alpha	U	pCi/L
Gross Beta	73 ± 13	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	4.24 ± 0.58	pCi/L
Radium – 228	1.61 ± 0.43	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the First Quarter 2009 monitoring period:

- January 2009: 8,689,955 gallons
- February 2009: 6,349,530 gallons
- March 2009: 7,246,619 gallons

Summation of the monthly volumes provides the total volume discharged during the First Quarter 2009 period:

$$8{,}689{,}955\ gal + 6{,}349{,}530\ gal + 7{,}246{,}619\ gal = 22{,}286{,}104\ gal$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

$$22{,}286{,}104\ gal \times \frac{3.785\ L}{gal} = 84{,}352{,}904\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Beta, multiply the activity concentration by the discharged volume:

$$\frac{73\ pCi}{L} \times 84{,}352{,}904\ L = 6.16 \times 10^{9}\ pCi$$

Similarly, for Radium-226:

$$\frac{4.24\ pCi}{L} \times 84{,}352{,}904\ L = 3.58 \times 10^{8}\ pCi$$

Similarly, for Radium-228:

$$\frac{1.61\ pCi}{L} \times 84{,}352{,}904\ L = 1.36 \times 10^{8}\ pCi$$

Summation of the three (3) results yields the total discharged activity for the First Quarter 2009 reporting period:

$$6.16 \times 10^{9}\ pCi + 3.58 \times 10^{8}\ pCi + 1.36 \times 10^{8}\ pCi = 6.65 \times 10^{9}\ pCi$$

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01039333

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231
www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I-71398
Page 1 of 1

Customer name/number: Allied Waste Systems | Submitter # 8945
Project Name: 1Q09 Leachate
Z Quote No: Z# 139326 (Given to you by your contact)
PO No. or Project/Activity ID: 33370800400
PRINT HERITAGE TSR NAME: ——

CUSTOMER STATUS: New / Existing
If no previous credit has been established with Heritage, **prepayment** (check, VISA, etc) is required at the time of sample submittal to the laboratory.

Sampled By: Herst & Associates, Inc
Rachael Haynes

Analyses Requested (Note special detection limits or methods)

Send Report To:
Co: Herst & Associates, Inc
Add: 4630 S. Hwy 94 North Outer Road
St. Charles, MO 63304
Attn: Ward Herst
Phone: (636) 939-9111
Fax: (636) 939-9757 Yes X
E-mail: labdata@herstassociates.com

Sample Turn Around Time
Standard: X Rush Date ___/___/___ Mo Day Yr
(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z139326	Remarks:	Lab use only Sample No.
2/11/09-2/12/09	1200 AM	X		Outfall 008	LL	4	X	SHORT HOLD	A839367
2/12/09	1205 PM		X	Outfall 008-oil & grease	LL	2	X		1
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Rachael Haynes	2/12/09 1800	Fed Ex →
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/	
Received for Lab by: (Signature)	Date 2/13/09 Time 925	Temp. 0.5 °C RCI: Yes / No

Laboratory use only	Yes	No
Custody seals present/intact?	✓	
Broken containers?		✓
COC agree with sample labels?	✓	
Correct containers for testing?	✓	
Headspace issues acceptable?	✓	
Holding time(s) acceptable?	✓	
Preservative pH's acceptable?		✓
Was pH left unadjusted?		✓

Comments:
LL = Leachate
Tracking # Fed Ex
8690-5486-7400
pH ADJUSTED ON O+G SAMPLES + METALS

ORIGINAL

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MSD 024426

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	13-FEB-09		A839367
	Completed	PO Number	
	03-MAR-09	PO33370800400	
	Printed	Sampled	
	03-MAR-09	12-FEB-09 16:00	

Report To	Bill To
WARD HERST HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 NORTH OUTER ROAD ST. CHARLES, MO 63304	ACCOUNTS PAYABLE ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER CODE: 8945
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 13-FEB-09 14:33 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	62	2	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: J. CROFFIE Analysis Date: 24-FEB-09 11:10 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	890	20	mg/L

1:2 Dilution.

HEXANE OIL AND GREASE , TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 27-FEB-09 09:00 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	BDL	5.0	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: R. YOUNG Analysis Date: 16-FEB-09 10:00 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	250		mL
FINAL VOLUME	250		mL

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MSD 024427

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A839367 OUTFALL 008

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: R. YOUNG | Analysis Date: 17-FEB-09 09:30 | Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 D 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	160	5.0	mg/L

1:50 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: A. DUKES | Analysis Date: 16-FEB-09 14:00 | Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	31	1	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: P. MATAKA | Analysis Date: 17-FEB-09 08:30 | Instrument: PREP | Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER | Analysis Date: 18-FEB-09 02:33 | Instrument: ICP | Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	70	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER | Analysis Date: 18-FEB-09 02:33 | Instrument: ICP | Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	22	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER | Analysis Date: 19-FEB-09 02:12 | Instrument: ICP | Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	32	20	ug/L

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B, 19TH ED. NELAC:Y

Analysis Date: 12-FEB-09 | Instrument: FIELD | Test: G607.2.0

Parameter	Result	Det. Limit	Units
PH	8.03	0.1	Std. Units

FIELD TEMPERATURE SM 2550 B, 19TH ED. NELAC:N

Analysis Date: 12-FEB-09 | Instrument: FIELD | Test: G603.1.0

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HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A839367 OUTFALL 008

Parameter	Result	Det. Limit	Units
TEMPERATURE	14.7		Degrees C

FIELD SPECIFIC CONDUCTANCE EPA 120.1 NELAC:Y

Analysis Date: 12-FEB-09 Instrument: FIELD Test: G604.1.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	5260	1.0	umHOS/cm

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .5 C.
Sample chain of custody number 71398.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.
Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.
Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.
Indiana SDWA Lab Accred. No. C-49-01

Approved by: CHRISTINE SARKAN 03-MAR-09

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MSD 024429

Herst & Associates Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F9B120270-001
Work Order: K65F9
Matrix: WATER

Date Collected: 02/12/09 1200
Date Received: 02/12/09 1230

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	mdc	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L	Batch # 9045053		Yld % 80
Radium 228	1.61		0.43	1.00	0.51	02/13/09	03/05/09
Gross Alpha/Beta EPA 900				pCi/L	Batch # 9048118		Yld %
Gross Alpha	-4.4	U	8.2	3.0	19	02/17/09	02/22/09
Gross Beta	73		13	4	12	02/17/09	02/22/09
Total Uranium by KPA ASTM 5174-91				ug/L	Batch # 9050412		Yld %
Total Uranium	-0.96	U	0.19	20.0	6.2	02/19/09	02/21/09
Radium 226 by EPA 903.0 MOD				pCi/L	Batch # 9045052		Yld % 92
Radium (226)	4.24		0.58	1.00	0.18	02/13/09	03/05/09
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L	Batch # 9048357		Yld %
Cesium 137	0.1	U	5.9	20.0	12	02/17/09	02/25/09

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC.

U Result is less than the sample detection limit.

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Lot # F9B120270

[redacted]

Chain of Custody Record

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

cur 453

TAL-4124 (1007)

Client: Allied Waste c/o Herst & Associates, Inc	Project Manager: Ward Herst	Date: 2/12/09	Chain of Custody Number: 101884
Address: 4630 S. Hwy 94 N. Outer Road	Telephone Number (Area Code)/Fax Number: 636-939-9111 / 636-939-9757	Lab Number:	Page 1 of 1
City: St. Charles; State: MO; Zip Code: 63304	Site Contact: James Martin; Lab Contact: Kay Clay		
Project Name and Location (State): Bridgeton 1209 Leachate	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Ra 226	Ra 228	Uranium	Gross Alpha	Gross Beta	Gross Gamma	Special Instructions/ Conditions of Receipt
Outfall 008	2/11/09 - 2/12/09	0815, 1200		X					2				X	X	X	X	X	X	2 x 4L p

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: Rachael Di Haynes	2/12/09	12:30	1. Received By: Angelo B Oon	2-17-09	12:30
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments: 24 hour Composite Sample

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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TestAmerica St. Louis

MSD 024431

2009

Allied Waste's
Bridgeton Landfill LLC.
Monthly Leachate Meter Reading

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet	Charge Per 100 Cubic Feet	Amount Due
January	1/30/2009	8,689,955	280,321	1,161,758.69	11,617.59	$1.05	$12,198.47
February	2/27/2009	6,349,530	204,824	848,867.65	8,488.68	$1.05	$8,913.11
March	3/31/2009	7,246,619	233,762	968,799.33	9,687.99	$1.05	$10,172.39
April							
May							
June							
July							
August							
September							
October							
November							
December							

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EOM lea 033109Sheet1

4/13/2009

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2/9/2009
MKN

Mr. Scott Rehmer
Metropolitan St. Louis Sewer District
Department of Environmental Compliance
10 East Grand Avenue
St. Louis, MO 63147-2913

January 22, 2009

Dear Mr. Rehmer:

Fourth Quarter 2008 Self Monitoring Report,
[redacted]

On behalf of Bridgeton Landfill, LLC, Herst & Associates, Inc. is submitting the Fourth Quarter 2008 leachate sampling and analysis report for the Bridgeton Landfill. On November 3rd, 2008 and November 4th, 2008 Herst & Associates, Inc. personnel collected samples of the leachate discharge as required by the Bridgeton Landfill Metropolitan St. Louis Sewer District (MSD) Permit No. 0511559802-1. The samples were collected from leachate sampling point 008. Samples collected for analysis of radioactive constituents were analyzed by TestAmerica Laboratories, Inc. located in Earth City, Missouri. Samples collected for analysis of other constituents were analyzed by Heritage Environmental Services, LLC, located in Indianapolis, Indiana.

The results indicate that the analyzed parameters for sampling point 008 are within permitted limits.

The MSD Self Monitoring Forms are provided in Attachment 1. Attachment 2 presents methodology used to calculate the amount of radionuclide activity discharged during the Fourth Quarter 2008 reporting period. Attachment 3 presents analytical results for constituents analyzed by Heritage Environmental Services, LLC. Attachment 4 presents analytical results for constituents analyzed by TestAmerica Laboratories, Inc. Attachment 5 presents monthly leachate volume records provided by Bridgeton Landfill, LLC for October, November, and December 2008.

If you have any questions regarding the information provided in this letter, please contact the undersigned at your earliest convenience.

Sincerely,

HERST & ASSOCIATES, INC.

Rachael D. Haynes
Staff Geologist

for
Ward E. Herst, R.G.
Managing Director

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9757

Cc: *Allen Steinkamp, Allied Waste Environmental Manager*
Rick Walker, Bridgeton Landfill Operations Manager
John Haasis, St. Louis County Department of Health
Vickie Heberlie, Missouri Department of Natural Resources

Attachments: *Attachment 1 – Metropolitan St. Louis Sewer District Industrial User Self Monitoring Reports*
Attachment 2 – Calculation of Discharged Activity
Attachment 3 – Heritage Environmental Laboratories, LLC, Laboratory Analytical Report
Attachment 4 – TestAmerica, Inc. Laboratory Analytical Report
Attachment 5 – Monthly Leachate Discharge Volume Records Provided by Bridgeton Landfill

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER SELF MONITORING REPORT

PLEASE READ THE INSTRUCTIONS BEFORE COMPLETING THIS REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☐ (Apr-Jun) ☐ (July-Sept) ☒ (Oct-Dec)

Samples Collected By: Rachael Haynes, Brandon Killion, and Nick Bauer of Herst & Associates, Inc.

Analyses Performed By: Heritage Environmental Services, LLC and TestAmerica Laboratories, Inc.

Part II: Analytical Results of Self Monitoring

MSD Sample Point Reference Numbers →		008						
Dates on which samples were collected →		11/3/2008 and 11/4/2008						
Times at which samples were collected →		1230, 1600, 0845, 1225						
Parameter	**Limit**	**Record Sample Types (G, C, M, or E) and Results Below G=grab, C=composite, M=measured flow, E=estimated flow**						**Units**
Flow	***	E	335,270					GPD
Biochemical Oxygen Demand	****	C	50					mg/L
Chemical Oxygen Demand	****	C	690					mg/L
Oil and Grease	200	G	ND < 5.0					mg/L
pH Acidic (<7)	5.5	G						SU
pH Basic (≥7)	11.5	G	7.09					SU
Temperature	60	G	24.9					°C
Total Suspended Solids	****	C	24					mg/L
Ammonia (as N)	*****	C	180					mg/L
Arsenic (Total)	0.4	C	NR					mg/L
Cadmium (Total)	0.7	C	NR					mg/L
Chromium (Total)	5.0	C	NR					mg/L
Copper (Total)	2.7	C	0.041					mg/L
Lead (Total)	0.4	C	NR					mg/L
Mercury (Total)	0.01	C	NR					mg/L
Nickel (Total)	2.3	C	0.056					mg/L
Zinc (Total)	3.0	C	0.027					mg/L
Total Toxic Organics	5.52	G	NR					mg/L
Gross Alpha	*****	C	20 ± 12					pCi/L
Gross Beta	*****	C	66 ± 11					pCi/L
Gross Gamma (as Cesium-137)	*****	C	U					pCi/L
Radium - 226	10	C	4.19 ± 0.54					pCi/L
Radium – 228	30	C	1.80 ± 0.39					pCi/L
Uranium (Total)	*****	C	U					µg/L

Notes:
ND = Non-Detect
NR = Not required during this quarterly event
U = Result is less than the sample detection limit

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Part III: Special Certification Statements

Based on the special conditions contained in your discharge permit you may be required to certify one of more of the following. Please review your permit and **place your initials in the boxes next to those certifications which are applicable to your facility**. If your permit contains no Special Conditions, then none of the certifications in **Part III** apply to you. **Go on to Part IV.**

A. If your permit special conditions waive monitoring at any sample point(s) specified in your permit, you are required to make the following certification:

☐ I certify, since the last discharge monitoring report, there has been no change in the character of the wastes discharged at sampling points _____.

B. If your permit special conditions waive monitoring at active connection points which are not specified as sample points in your permit, you are required to make the following certification:

☒ I certify, since the last discharge monitoring report, there has been no change in the character of wastes discharged at those active connection points which are not specified in my permit.

C. If your permit special conditions waive monitoring at inactive connection points, you are required to make the following certification:

☐ I certify, since the permit issue date, there has been no change in the status of connection points identified as inactive. These points remain inactive and no discharge occurred during the period covered by this report.

D. If your permit special conditions authorize grab sample collection in lieu of composite sampling at any sample point(s), you are required to make the following certification:

☐ I certify the grab sample results in this report accurately represent our average daily discharge at sample points(s) _____.

E. If your permit special conditions prohibit discharge of wastes which are subject to certain categorical pretreatment standards, you are required to make the following certification:

☐ I certify, since the last discharge monitoring report, there has been no discharge of wastes which are subject to pretreatment standards in 40 CFR _____.

F. Discharges subject to Pharmaceutical Categorical Standards (40 CFR 439) can be exempted from limitations and monitoring for Total Cyanide at the Pharmaceutical sample point(s) subjected to the following certification:

☐ I certify, since the last discharge monitoring report, cyanide has not been used or generated in any pharmaceutical manufacturing process subject to Categorical Standards in 40 CFR 439.

G. Discharges Subject to Categorical Standards for Electroplating (40 CFR 413), Metal Finishing (40 CFR 433) or Electrical & Electronic Components (40 CFR 469) can be exempted from TTO monitoring only at the Electroplating, Metal Finishing or Electrical & Electronic Components sample point(s) subject to the following certification:

☐ Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to MSD.

Part IV: Special Certification Statements

Initial the box for statement A if it applies to you. **Everyone must complete the information under statement B and sign this report.**

A. Discharges at sample points subject only to MSD Ordinance limits can be exempted from TTO monitoring subject to the following certification:

☐ In lieu of monitoring for TTO at sample point(s) _____, I certify that to the best of my knowledge and belief, no toxic organics have been used at this premise or discharged into the wastewaters since filing of the last discharge monitoring report.

B. **Discharge Monitoring Report Certification**

I certify under penalty of Law that this document and all attachments were prepared under my direction or supervision in accordance with a system designated 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.

Print or type name of signing official: Allen Steinkamp

Title: Environmental Manager Telephone: 314-739-5099 x 4464

Signature: Allen Steinkamp Date: 1/21/09

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METROPOLITAN ST. LOUIS SEWER DISTRICT
INDUSTRIAL USER RADIOACTIVE MATERIALS DISCHARGE REPORT

Part I: Identifying Information

Company Name: Bridgeton Landfill, LLC

Permit No.: 0511559802-1

Premise Address: 13570 St. Charles Rock Road, Bridgeton, MO 63044

Monitoring Period: ☐ (Jan-Mar) ☐ (Apr-Jun) ☐ (July-Sept) ☒ (Oct-Dec)

Part II: Record of Disposal of Radioactive Materials to the Sewer System

Radionuclide	Activity Discharged (Picocuries)
Gross Alpha	2.03×10^9
Gross Beta	6.69×10^9
Gross Gamma (as Cesium -137)	Not Applicable – Constituent Not Detected
Radium - 226	4.25×10^8
Radium - 228	1.82×10^8
Total Activity Discharged :	9.33×10^9 pCi

= 0.37 mCi

Part III: Certification Statements

Place your initials in the box under item A.
Everyone must complete the information under items A & B and sign this report.

A. Certification of Compliance with Federal regulations

☒ I certify that to the best of my knowledge & belief, all requirements of 10 CFR Part 20, Appendix B, Table 3 governing disposal by release into sanitary sewage for material regulated by the Nuclear Regulatory Commission have been met for the period covered by this report.

B. Radioactive Materials Discharge Report Certification

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 submitted is , to the best of my knowledge and belief, true c, 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.

Print or type name of signing official: Allen Steinkamp

Title: Environmental Manager

Telephone: 314-739-5099 ext 4464

Signature: Allen Steinkamp

Date: 1/21/09

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HERST & ASSOCIATES, INC.®

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Personal Attention

Attachment 2

Calculation of Discharged Activity

In accordance with Special Condition II.A.2 of the Bridgeton Landfill MSD Permit (Permit 05115598-02), each quarterly discharge report shall specify the activity discharged to the sewer system by permitted radionuclide during the reporting period. The following methodology was used to calculate the activity discharged from the Bridgeton Landfill during the Fourth Quarter 2008 monitoring period.

To determine the activity discharged for each radionuclide, the activity concentration for the reporting period is multiplied by the total volume discharged during the reporting period:

$$\text{Discharged Activity} = \text{Activity Concentration} \times \text{Discharged Volume}$$

As provided in Attachment 4, the following radionuclide activity concentrations were reported from samples collected from Outfall 008 during the Fourth Quarter 2008 monitoring period.

Constituent	Result	Units
Gross Alpha	20 ± 12	pCi/L
Gross Beta	66 ± 11	pCi/L
Gross Gamma (as Cesium -137)	U	pCi/L
Radium – 226	4.19 ± 0.54	pCi/L
Radium – 228	1.80 ± 0.39	pCi/L

Notes:
1 pCi = 1×10^{-12} Ci
U = Result is less than the sample detection limit

As provided in Attachment 5, the following monthly volumes were discharged through leachate sampling point 008 during the Fourth Quarter 2008 monitoring period:

- October 2008: 9,812,014 gallons
- November 2008: 8,960,091 gallons
- December 2008: 8,014,500 gallons

Summation of the monthly volumes provides the total volume discharged during the Fourth Quarter 2008 period:

$$9{,}812{,}014 \text{ gal} + 8{,}960{,}091 \text{ gal} + 8{,}014{,}500 \text{ gal} = 26{,}786{,}605 \text{ gal}$$

Because activity concentration results are presented in pCi/L, the discharged volume is converted from units of gallons to liters prior to calculation of discharged activity:

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4630 South Highway 94 – North Outer Road
St. Charles, Missouri 63304

Telephone (636) 939-9111
Fax (636) 939-9150

$$26{,}786{,}605\ \text{gal} \times \frac{3.785\ \text{L}}{\text{gal}} = 101{,}387{,}300\ \text{L}$$

Therefore, to determine the discharged activity attributable to Gross Alpha, multiply the activity concentration by the discharged volume:

$$\frac{20\ \text{pCi}}{\text{L}} \times 101{,}387{,}300\ \text{L} = 2.03 \times 10^{9}\ \text{pCi}$$

Similarly, for Gross Beta:

$$\frac{66\ \text{pCi}}{\text{L}} \times 101{,}387{,}300\ \text{L} = 6.69 \times 10^{9}\ \text{pCi}$$

Similarly, for Radium-226:

$$\frac{4.19\ \text{pCi}}{\text{L}} \times 101{,}387{,}300\ \text{L} = 4.25 \times 10^{8}\ \text{pCi}$$

Similarly, for Radium-228:

$$\frac{1.80\ \text{pCi}}{\text{L}} \times 101{,}387{,}300\ \text{L} = 1.82 \times 10^{8}\ \text{pCi}$$

Summation of the three (3) results yields the total discharged activity for the Fourth Quarter 2008 reporting period:

$$2.03 \times 10^{9} + 6.69 \times 10^{9}\ \text{pCi} + 4.25 \times 10^{8}\ \text{pCi} + 1.82 \times 10^{8}\ \text{pCi} = 9.33 \times 10^{9}\ \text{pCi}$$

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Quality Assurance Report Package # 57674

HERST AND ASSOCIATES

WARD HERST
4630 SOUTH HIGHWAY 94
NORTH OUTER ROAD
ST. CHARLES, MO 63304

Project : MO-ALLIED-BRIDGETON LANDFILL

Sampled : 04-NOV-08

Sample Range : A829286

Approved by: CHRISTOPHER BOYLE - Project Manager

Heritage Environmental Services, LLC
Commercial Laboratory Operations
7901 West Morris Street
Indianapolis, Indiana 46231
Phone: (317) 243-8304
Fax : (317) 486-5095

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01036936

HERITAGE ENVIRONMENTAL SERVICES, LLC.
COMMERCIAL LABORATORY OPERATIONS

7901 West Morris Street Indianapolis IN 46231
www.heritage-enviro.com (800)827-4374 Fax: (317) 486-5095

I-69885

Customer name/number: Allied Waste Systems | Submitter #8945
Project Name: 4008 leachate
Z Quote No: 139877 (Given to you by your contact)
PO No. or Project/Activity ID: ~~33370800400~~ 33370800400
PRINT HERITAGE TSR NAME: —

CUSTOMER STATUS: New / Existing

If no previous credit has been established with Heritage, **prepayment** (check,VISA,etc) is required at the time of sample submittal to the laboratory.

Sampled By: Rachael Haynes, Brandon Killian, Nick Bauer
Heest & Associates, Inc

Analyses Requested (Note special detection limits or methods)

Send Report To:
Co: Heest & Associates, Inc
Add: 4630 S Hwy 94 N. Outer Road
St Charles MO 63304
Attn: Ward E. Heest
Phone: (636) 939-9111
Fax: (636) 939-9757 Yes X
E-mail: labdata@heestassociates.com

Sample Turn Around Time
Standard: X Rush Date ___ / ___ / ___ (Mo Day Yr)
(Accelerated TAT subject to Additional Charge)
(Date must be Accepted and Approved by Lab)

Date Sampled	Time sampled	Comp	Grab	Sample ID and/or Location where your sample was taken	Sample type (Matrix): DW, GW, WW, Soil, Oil, Sludge, Swipe, Other	Number of Containers	Z# 139877	Remarks:	Lab use only Sample No.
11/3/08-11/4/08	1030-1600 0895, 1225 AM	X		Outfall 008	LL	4	X	Short Hold	A829286
11/4/08	1225 PM		X	Oil & Grease - Outfall 008	LL	2	X		
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								
	AM PM								

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Rachael Haynes	11/4/08 1700	Fed Ex →
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	/	
Received for Lab by: (Signature)		Date 11.5.08 Temp. 0.8 °C
[signature]		Time 8:50 ROI: Yes / No

Laboratory use only	Yes	No
Custody seals present/intact?	✓	
Broken containers?		✓
COC agree with sample labels?	✓	
Correct containers for testing?	✓	
Headspace issues acceptable?	✓	
Holding time(s) acceptable?	✓	
Preservative pH's acceptable?	✓	
Was pH left unadjusted?	✓	

Comments:
LL = leachate
Tracking #
8659 7591 7458

ORIGINAL

MSD 024441

CERTIFICATE OF ANALYSIS

Service Location	Received	Project	Lab ID
HERITAGE ENVIRONMENTAL SERVICES, LLC COMMERCIAL LABORATORY OPERATIONS 7901 W. MORRIS ST. INDIANAPOLIS, IN 46231 (317)243-8304	05-NOV-08		A829286
	Completed	**PO Number**	
	17-NOV-08	PO33370800400	
	Printed	**Sampled**	
	17-NOV-08	04-NOV-08 12:25	

Report To	Bill To
WARD HERST HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 NORTH OUTER ROAD ST. CHARLES, MO 63304	ACCOUNTS PAYABLE ALLIED WASTE SYSTEMS 13570 ST. CHARLES ROCK ROAD BRIDGETON, MO 63044

Sample Description

CLIENT ID: OUTFALL 008
MATRIX TYPE: NON-SPECIFIC WATER
SUBMITTER CODE: 8945
LOCATION: BRIDGETON LANDFILL
DESCRIPTION: QUARTERLY LEACHATE
830871

BIOCHEMICAL OXYGEN DEMAND, 5-DAY SM 5210B 18TH ED NELAC:Y

Analyst: J. CROFFIE Analysis Date: 05-NOV-08 14:40 Test: G801.4.0

Parameter	Result	Det. Limit	Units
BIOCHEMICAL OXYGEN DEMAND	50	2	mg/L

CHEMICAL OXYGEN DEMAND (COLORIMETRIC) EPA 410.4, REV. 2.0 (1993) NELAC:Y

Analyst: J. CROFFIE Analysis Date: 11-NOV-08 10:00 Test: G301.1.0

Parameter	Result	Det. Limit	Units
CHEMICAL OXYGEN DEMAND	690	20	mg/L

1:2 Dilution.

HEXANE OIL AND GREASE , TOTAL (SOLID PHASE EXTRACTION) EPA 1664A NELAC:Y

Analyst: S. BOXUM Analysis Date: 06-NOV-08 09:30 Test: G166.0.0

Parameter	Result	Det. Limit	Units
HEXANE EXTRACTABLE MATERIAL (OIL AND GREASE)	BDL	5.0	mg/L

AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED

Analyst: R. YOUNG Analysis Date: 12-NOV-08 09:00 Instrument: PREP Test: P203.7.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	250		mL
FINAL VOLUME	250		mL

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HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A829286 OUTFALL 008

AMMONIA-NITROGEN, SELECTIVE ELECTRODE METHOD SM4500-NH3 D 19TH ED. NELAC:Y

Analyst: R. YOUNG Analysis Date: 13-NOV-08 09:00 Test: G203.8.0

Prep: AMMONIA DISTILLATION SM 4500-NH3 B 19TH ED P203.7.0

Parameter	Result	Det. Limit	Units
NITROGEN, AMMONIA	180	5.0	mg/L

1:50 Dilution.

TOTAL SUSPENDED SOLIDS DRIED AT 103-105 DEGREES C SM 2540 D, 19TH ED. NELAC:Y

Analyst: T. DRIGGERS Analysis Date: 05-NOV-08 17:00 Test: G403.8.0

Parameter	Result	Det. Limit	Units
SUSPENDED SOLIDS	24	1	mg/L

FAA OR ICP ACID DIGESTION EPA 200.0

Analyst: P. MATAKA Analysis Date: 06-NOV-08 08:00 Instrument: PREP Test: P129.2.0

Parameter	Result	Det. Limit	Units
INITIAL WEIGHT OR VOLUME	50		mL
FINAL VOLUME	50		mL

COPPER ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 07-NOV-08 04:54 Instrument: ICP Test: M412.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
COPPER	41	20	ug/L

NICKEL ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 07-NOV-08 04:54 Instrument: ICP Test: M422.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
NICKEL	56	5.0	ug/L

ZINC ICP EPA 200.7 REV. 4.4 NELAC:Y

Analyst: J. KRAMER Analysis Date: 07-NOV-08 04:54 Instrument: ICP Test: M439.3.0

Prep: FAA OR ICP ACID DIGESTION EPA 200.0 P129.2.0

Parameter	Result	Det. Limit	Units
ZINC	27	20	ug/L

FIELD PH, ELECTROMETRIC (AQUEOUS) SM4500-H+ B, 19TH ED. NELAC:Y

Analysis Date: 04-NOV-08 Instrument: FIELD Test: G607.2.0

Parameter	Result	Det. Limit	Units
PH	7.09	0.1	Std. Units

FIELD TEMPERATURE SM 2550 B, 19TH ED. NELAC:N

Analysis Date: 04-NOV-08 Instrument: FIELD Test: G603.1.0

HERITAGE ENVIRONMENTAL SERVICES, LLC

Sample ID: A829286 OUTFALL 008

Parameter	Result	Det. Limit	Units
TEMPERATURE	24.9		Degrees C

FIELD SPECIFIC CONDUCTANCE EPA 120.1 NELAC:Y

Analysis Date: 04-NOV-08 Instrument: FIELD Test: G604.1.0

Parameter	Result	Det. Limit	Units
CONDUCTIVITY	4980	1.0	umHOS/cm

Sample Comments

BDL Below Detection Limit

Sample was received on ice at temperature .8 C.
Sample chain of custody number 69885.

This Certificate shall not be reproduced, except in full, without the written approval of the lab.
The sample results relate only to the analytes of interest tested or to the sample as received by the lab.
Heritage Environmental Services, LLC certifies that the test results indicated as NELAC (National Environmental Laboratory Accreditation Conference) accredited (Yes for NELAC) meet all requirements of NELAC and Illinois EPA Part 186 unless otherwise explained or justified as to the the exact nature of the deviations.
Heritage Environmental Services, LLC is accredited under Illinois NELAC accreditation number 100401.
Indiana SDWA Lab Accred. No. C-49-01

Approved by: CHRISTINE SARKAN 17-NOV-08

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MSD 024444

Quality Assurance Report

57674

17-NOV-08

Service Location	Submitter
Heritage Environmental Services, LLC Commercial Laboratory Operations 7901 West Morris Street Indianapolis, IN 46231 (317) 243-8304	WARD HERST HERST AND ASSOCIATES 4630 SOUTH HIGHWAY 94 ST. CHARLES, MO 63304

Sample ID	Client ID	Date/Time Sampled	Date Received	Date Complete
A829286	OUTFALL 008.....	04-Nov-08 12:25	05-Nov-08	17-Nov-08

DESCRIPTION : QUARTERLY LEACHATE
LOCATION : BRIDGETON LANDFILL
: 830871

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Bridgeton Landfill

Lot #: F8K050146

Ward Herst

Herst & Associates Inc
4630 South Hwy 94
North Outer Road
St Charles, MO 63304

TESTAMERICA LABORATORIES, INC.

Kay Clay
Project Manager

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November 24, 2008

13715 Rider Trail North Earth City, MO 63045 tel 314.298.8566 fax 314.298.8757 www.testamericainc.com

Case Narrative
LOT NUMBER: F8K050146

This report contains the analytical results for the sample received under chain of custody by TestAmerica St. Louis on November 4, 2008. This sample is associated with your Bridgeton Landfill project.

The analytical results included in this report meet all applicable quality control procedure requirements except as noted below.

The test results in this report meet all NELAP requirements for parameters in which accreditations are held by TestAmerica St. Louis. Any exceptions to NELAP requirements are noted in the case narrative. The case narrative is an integral part of this report.

All chemical analysis results are based upon sample as received, wet weight, unless noted otherwise. All radiochemistry results are based upon sample as dried and ground with the exception of tritium, unless requested wet weight by the client.

Observations/Nonconformances
Reference the chain of custody and condition upon receipt report for any variations on receipt conditions and temperature of samples on receipt.

Uranium by KPA Method: 5174-91

Batch 8312501
The sample exhibited matrix interference. Due to the 200x dilution the MDC was almost ten times the calculated result. Also the CRDL at 200 was almost 25x the sample result.
Affected Sample:
F8K050146 (1): OUTFALL 008

Gross Alpha/Beta Method: 900.0 MOD

The Gross Alpha Beta reporting limit was not met due to a reduction of sample size attributed to the sample's high residual mass. The analytical results are reported.
Affected Sample:
F8K050146 (1): OUTFALL 008

METHODS SUMMARY

F8K050146

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Gamma Spectroscopy - Cesium-137 & Hits	EPA 901.1 MOD	
Gross Alpha/Beta EPA 900	EPA 900.0 MOD	EPA 900.0
Radium-226 by GFPC	EPA 903.0 MOD	
Radium-228 by GFPC	EPA 904 MOD	
Total Uranium By Laser Ph osphorimetry	ASTM 5174-91	

References:

ASTM Annual Book Of ASTM Standards.

EPA "EASTERN ENVIRONMENTAL RADIATION FACILITY RADIOCHEMISTRY PROCEDURES MANUAL" US EPA EPA 520/5-84-006 AUGUST 1984

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SAMPLE SUMMARY

F8K050146

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
K189P	001	OUTFALL 008	11/04/08	16:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Herst & Associates Inc

Client Sample ID: OUTFALL 008

Radiochemistry

Lab Sample ID: F8K050146-001
Work Order: K189P
Matrix: WATER

Date Collected: 11/04/08 1600
Date Received: 11/04/08 1650

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Radium 228 by GFPC EPA 904 MOD				pCi/L		Batch # 8310314	Yld % 82
Radium 228	1.80		0.39	1.00	0.41	11/05/08	11/20/08
Gross Alpha/Beta EPA 900				pCi/L		Batch # 8311201	Yld %
Gross Alpha	20		12	3	14	11/06/08	11/09/08
Gross Beta	66		11	4	9	11/06/08	11/09/08
Total Uranium by KPA ASTM 5174-91				ug/L		Batch # 8312501	Yld %
Total Uranium	7.09	U	0.88	200	62	11/07/08	11/10/08
Radium 226 by EPA 903.0 MOD				pCi/L		Batch # 8310313	Yld % 98
Radium (226)	4.19		0.54	1.00	0.14	11/05/08	11/20/08
Gamma Cs-137 & Hits by EPA 901.1 MOD				pCi/L		Batch # 8316527	Yld %
Cesium 137	0.8	U	7.0	20.0	13	11/11/08	11/19/08

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NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC

U Result is less than the sample detection limit.

LOT # F8K050146

Herst & Associates Inc

Client Sample ID: OUTFALL 008 DUP

Radiochemistry

Lab Sample ID: F8K050146-001X
Work Order: K189P
Matrix: WATER

Date Collected: 11/04/08 1600
Date Received: 11/04/08 1650

Parameter	Result	Qual	Total Uncert. (2 σ+/-)	RL	MDC	Prep Date	Analysis Date
Gross Alpha/Beta EPA 900				**pCi/L**	**Batch # 8311201**		**Yld %**
Gross Alpha	11	U	11	3	18	11/06/08	11/09/08
Gross Beta	**66**		**11**	4	**9**	**11/06/08**	**11/09/08**
Gamma Cs-137 & Hits by EPA 901.1 MOD				**pCi/L**	**Batch # 8316527**		**Yld %**
Cesium 137	0.4	U	7.5	20.0	14	11/11/08	11/19/08

NOTE(S)

Data are incomplete without the case narrative.

MDC is determined by instrument performance only.
Bold results are greater than the MDC

U Result is less than the sample detection limit.

[redacted]

Chain of Custody Record

CWR 635

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☒

TestAmerica

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Page 1 of 2

TAL 4124 (1007)

Client: Allied Waste c/o Herst & Associates, Inc	Project Manager: Ward Herst	Date: 11/4/08	Chain of Custody Number: 101515
Address: 4630 S. Hwy 94 North Outer Road	Telephone Number (Area Code)/Fax Number: 636-939-9111 / 636-939-9757	Lab Number:	Page 1 of 1
City: St. Charles; State: MO; Zip Code: 63304	Site Contact: Allen Stienkamp; Lab Contact: Kay Clay		
Project Name and Location (State): Bridgeton 4208 RAD Leachate	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): Ra 220	Ra 228	Uranium	Alpha	Gamma	Beta						Special Instructions/ Conditions of Receipt
Outfall 008	11/3/08 - 11/4-08	1230, 1600 0845, 1225		X					2				X	X	X	X	X	X			2x4			

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By: [signature]	11/4/08	1650	1. Received By: [signature]	11/4/08	1650
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments: Composite (24 hr) Sample from 11/3/08 1230 to 11/4/08 1225

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

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TestAmerica St. Louis

MSD 024452

14

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lot #(s): F8K050146

- 635 -

Condition Upon Receipt Form

Client: Allied
Quote No: 49794
COC/RFA No: 101515
Initiated By: AB
Date: 11/4/08
Time: 16:30

Shipping Information

Shipper Name: Client
Shipping # (s):*

1.		6.	
2.		7.	
3.		8.	
4.		9.	
5.		10.	

Multiple Packages Y (N)
Sample Temperature (s):**

1.	Ambient	6.	
2.		7.	
3.		8.	
4.		9.	
5.		10.	

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid or Rad tests-(Liquid) or Solids

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y (N)	Are there custody seals present on the cooler?	8.	Y (N)	Are there custody seals present on bottles?
2.	Y N (N/A)	Do custody seals on cooler appear to be tampered with?	9.	Y N (N/A)	Do custody seals on bottles appear to be tampered with?
3.	(Y) N	Were contents of cooler frisked after opening, but before unpacking?	10.	(Y) N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	(Y) N	Sample received with Chain of Custody?	11.	Y N	If N/A- Was pH taken by original TestAmerica lab?
5.	(Y) N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	(Y) N	Sample received in proper containers?
6.	Y (N)	Was sample received broken?	13.	Y N (N/A)	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	(Y) N	Is sample volume sufficient for analysis?	14.	Y N (N/A)	Was Internal COC/Workshare received?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX and soils.

Notes:

Corrective Action:
- ☐ Client Contact Name:
- ☐ Sample(s) processed "as is"
- ☐ Sample(s) on hold until:

Informed by:
If released, notify:
Date: 11-06-08

Project Management Review: [signature]

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

2008

Allied Waste's
Bridgeton Landfill LLC.
Monthly Leachate Meter Reading

Month	Date of Reading	Gallons	Average Daily Discharge (Gal)	Equivalent Cubic Feet	Equivalent 100 Cubic Feet	Charge Per 100 Cubic Feet	Amount Due
January	1/31/2008	3,677,110	118,616	491,592.25	4,915.92	$1.05	$5,161.72
February	2/29/2008	3,644,272	117,557	487,202.14	4,872.02	$1.05	$5,115.62
March	3/31/2008	2,864,200	92,394	382,914.44	3,829.14	$1.05	$4,020.60
April	4/30/2008	6,830,012	220,323	913,103.21	9,131.03	$1.05	$9,587.58
May	6/2/2008	7,894,528	254,662	1,055,418.18	10,554.18	$1.05	$11,081.89
June	6/30/2008	5,230,996	168,742	699,331.02	6,993.31	$1.05	$7,342.98
July	7/31/2008	8,017,723	258,636	1,017,888.10	10,718.88	$1.05	$11,254.83
August	8/29/2008	8,500,600	274,213	1,136,443.85	11,364.44	$1.05	$11,932.66
September	9/30/2008	7,271,596	234,568	972,138.50	9,721.39	$1.05	$10,207.45
October	10/31/2008	9,812,014	316,517	1,311,766.58	13,117.67	$1.05	$13,773.55
November	12/1/2008	8,960,091	289,035	1,197,873.13	11,978.73	$1.05	$12,577.67
December	12/30/2008	8,014,500	258,532	1,071,457.22	10,714.57	$1.05	$11,250.30

RECEIVED
JAN 26 2009
DIVISION OF
ENVIRONMENTAL COMPLIANCE

December Monthly Precipitation 4.55 Inches

1/15/2009

Metropolitan Saint Louis Sewer District
2350 Market Street
Saint Louis, Missouri 63103-2555

BRIDGETON LANDFILL LLC
13570 St. Charles Rock Road
Bridgeton, MO 63044

Attn: Allen Steinkamp
Environmental Manager

INDUSTRIAL WASTEWATER DISCHARGE PERMIT NUMBER 0511559802.

ANNUAL PERMIT FEE NOTICE

For permits in effect as of 10/01/2008.

Fee will be included in a separate bill from the Metropolitan St. Louis Sewer District.

Explanation of Charges

Fee for Pretreatment Program Discharge Permit covering the period October 1, 2008 through September 30, 2009 issued in accordance with the Metropolitan St. Louis District Ordinance #8660 for the location at **13570 St. Charles Rock Road.**

Base charge @ $150.00 per permit			$150.00
Volume charge @$0.72 per average daily Ccf	225.59	Ccfs	$162.42
Sample Point Charge @$100.00 per sample point	2	Point(s)	$200.00

For inquiries about the Annual Permit Fee, please call 314-436-8710. For inquiries about payment of the fee, which will appear on your upcoming monthly bill, please call 1-866-281-5737.

THIS IS NOT A BILL

DO NOT PAY NOW

FEE WILL BE INCLUDED ON MONTHLY BILL