



January 12, 2018

Karl Knutson  
Wisconsin Department of Natural Resources  
South Central Region  
3911 Fish Hatchery Rd.  
Fitchburg, WI 53711

Subject: Discharge Monitoring Report - Groundwater Extraction and Treatment System,  
Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin

Dear Mr. Knutson,

The Groundwater Extraction and Treatment System (GETS) ran for the month of December with the exception of maintenance activities. This letter summarizes the activities completed in December 2017 as part of the GETS at the Madison-Kipp Corporation (MKC) site under the Wisconsin Pollution Discharge Elimination System (WPDES) Permit WI-0046566-6.

The GETS flow rate was 40 gallons per minute (gpm) between December 15 and December 21, 2017 to avoid water extraction into the vapor phase activated carbon vessels while repairs to the soil vapor extraction (SVE) were completed. Otherwise the GETS flow rate was 45 gpm.

Compliance samples were collected for oil and grease, biological oxygen demand, total suspended solids, chloride, select polycyclic aromatic hydrocarbons, volatile organic compounds, and visual monitoring for sodium permanganate on December 8, 2017. The compliance sample results for the PAHs Group of 10 was above the WPDES discharge limit. TRC notified you of the exceedance upon review of the results on January 3, 2018, and based on the discussion additional sampling and monitoring of the system is being completed to further evaluate the system effluent.

As provided by email on January 9, 2018, the additional PAH monitoring completed on January 3, 2018 reported no exceedances of the WPDES discharge limit for the PAHs Group 10. Another effluent sample was collected on January 8, 2018 and TRC will provide the results when available, and discuss system operation and effluent results. The Discharge Monitoring Report for December 2017 is included as Attachment A and laboratory reports are included as Attachment B.

If you have any questions or need additional information, please contact me at [mshppard@madison-kipp.com](mailto:mshppard@madison-kipp.com) or (608) 242-5207.

Mark Sheppard

A handwritten signature in blue ink, appearing to read "Mark Sheppard", is written over a light blue horizontal line.

Madison-Kipp Corporation



Attachment A Discharge Monitoring Report Form  
Attachment B Laboratory Reports

Copies:

Andrew Stehn - TRC (electronic)

Mike Schmoller - WDNR (electronic)

Wendy Weihemuller - WDNR (electronic)

George Parrino - Madison Department of Health (electronic)

Attachment A  
Discharge Monitoring Report Form

**DISCHARGE MONITORING REPORT FORM**

**Contaminated Groundwater from Remedial Action Operations - Surface Water Discharge**

**Permit No. WI-0046566-6**

Year: 2017

Rev. December 16, 2013

**Facility Name and Location**

Madison Kipp Corporation  
 201 Waubesa St  
 Madison, WI 53704  
 Consultant Managing Project: TRC  
 FIN#:

Outfall # and Description		Flow (gal/day)	Oil & Grease (mg/L)	BOD <sub>5</sub> (mg/L)	Total BETX (µg/L)	PAHs group of 10 (µg/L)	Benzo(a) pyrene (µg/L)	Naphthalene (µg/L)	Sodium Permanganate (mg/L)	Benzene (µg/L)	TSS (mg/L)
Effluent	Month: December 8, 2017	57,600 - 64,800	2.3 J	<2.0	<0.40	0.41	<0.025	0.073 J	Absent	<0.15	2.0 J
	Month:										
	Month:										
	Month:										
See Footnotes		(4) (8)	(6)		(1)	(2) (9)		(6)	(3)		(6)
Effluent Limits (refer to sec. 4 of the permit)		--	10 mg/l	20 mg/L	750 µg/L	0.1 µg/l	0.1 µg/l	70 µg/l	--	50 µg/l	40 mg/L
Sample Frequency: Pre-treatment		Monthly	Quarterly	Quarterly	Monthly	Quarterly	Quarterly	Quarterly	Monthly	Monthly	Quarterly
Sample Frequency: Post-treatment		Monthly	Quarterly	Quarterly	Monthly	Quarterly	Quarterly	Quarterly	Monthly	Monthly	Quarterly
Sample Type		Estimate	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Impaired or TMDL surface waters		Does this facility discharge a pollutant of concern to an impaired surface water or to a surface water with a TMDL allocation? <input type="radio"/> No <input checked="" type="radio"/> Yes									
Outfall # and Description		VOCs (µg/L)	Vinyl Chloride (µg/L)	trans-1,2-Dichloroethene (µg/L)	1,1-Dichloroethene (µg/L)	Tetrachloroethene (µg/L)	Chloride (mg/L)	cis-1,2-Dichloroethene (µg/L)	Trichloroethene (µg/L)		
Effluent	Month: December 8, 2017	48.7	<0.20	<0.35	<0.39	26	130	16	6.7		
	Month:										
	Month:										
	Month:										
See Footnotes		(4)		(4)				(4)			
Effluent Limits (refer to sec. 4 of the permit)		--	10 µg/L	--	50 µg/L	50 µg/L	395 mg/L	--	50 µg/L		
Sample Frequency: Pre-		Monthly	Monthly	Monthly	Monthly	Monthly	Quarterly	Monthly	Monthly		

treatment									
Sample Frequency: Post-treatment	Monthly	Monthly	Monthly	Monthly	Monthly	Quarterly	Monthly	Monthly	
Sample Type	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	

**FOOTNOTES**

- (1) Total BTEX is the sum of the benzene, ethylbenzene, toluene and xylene concentrations. If all compounds were below their corresponding laboratory detection limits, then the highest detection limit of the BTEX compounds was noted.
- (2) PAH group of 10 (Polynuclear Aromatic Hydrocarbons) include the sum of the following individual compounds: benzo(a)anthracene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene, and pyrene. If all compounds were below their corresponding laboratory detection limits, then the highest detection limit of the PAH group compounds was noted.
- (3) Madison-Kipp/TRC will conduct visual monitoring for this compound.
- (4) No effluent limit is established, refer to section 4 of the permit.
- (5) B = Compound was found in the blank and in the sample.
- (6) J = Estimated value. Analyte detected at a level less than the reporting limit and greater than or equal to the detection limit.
- (7) M = Matrix Spike and/or Matrix Spike Duplicate Recovery is outside acceptance limits.
- (8) GETS operated at 40 gpm between December 15 and December 21, 2017.
- (9) The WDNR was notified of the PAH Group 10 exceedance and additional monitoring is being completed.

**DIRECTIONS**

- ☐ For "Outfall # and Description" enter the number of the outfall you are reporting (001 or 002, etc.) and the source of wastewater, (petroleum contact, tank bottom water, scrap and waste storage area oily water, or secondary containment). Copy and use a new form for each outfall.
- ☐ Monitoring for a given parameter depends on if the discharge is to surface water or groundwater, and petroleum category.
- ☐ The value entered must be the highest value of all samples analyzed for that day.
- ☐ For each quarter, indicate the month monitoring occurred next to "Month"
- ☐ Include as separate attachments to this form the annual reports for (a) waste oil and solids removed, and (b) tank bottom water disposal.

RETURN REPORT BY: February 15, of the year following completion of monitoring

RETURN TO **ATTN: Nicholas Bertolas**  
**Department of Natural Resources**  
**3911 Fish Hatchery Rd.**  
**Fitchburg, WI 53711**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment, (40 CFR 122.5). I also certify that the values being submitted are the actual values found in the samples, no values have been modified or changed in any manner. Wherever I believe a value being reported is inaccurate, I have added an explanation indicating the reasons why the value is inaccurate.

*Andrew M. Steh* 1-12-2018  
 Signature of Person Completing Form Date

*[Signature]* 1-12-2018  
 Signature of Principal Exec. or Authorized Agent Date

Attachment B  
Laboratory Reports

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-138419-1

Client Project/Site: MadisonKipp - GETS/SVE

For:

Madison-Kipp Corporation

201 Waubesa Street

Madison, Wisconsin 53704

Attn: Alina Satkoski



Authorized for release by:

12/13/2017 4:19:30 PM

Sandie Fredrick, Project Manager II

(920)261-1660

[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Case Narrative

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

**Job ID: 500-138419-1**

**Laboratory: TestAmerica Chicago**

## Narrative

**Job Narrative  
500-138419-1**

### Receipt

The samples were received on 12/9/2017 10:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8° C.

### Receipt Exceptions

COC has Influent sample at "10:45" and Effluent at "10:40", on the bottles times are switched. logged samples time per COC. Influent (500-138419-1), Effluent (500-138419-2) and Trip Blank (500-138419-3)

### GC/MS VOA

Method(s) 624: The following sample was diluted to bring the concentration of target analytes within the calibration range: Influent (500-138419-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

## Client Sample ID: Influent

Lab Sample ID: 500-138419-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	83		5.0	2.0	ug/L	5		624	Total/NA
Trichloroethene	130		2.5	0.82	ug/L	5		624	Total/NA
Tetrachloroethene - DL	1600		50	19	ug/L	50		624	Total/NA
HEM (Oil & Grease)	2.7	J	5.4	1.4	mg/L	1		1664B	Total/NA
Chloride	130		4.0	3.4	mg/L	20		300.0	Total/NA

## Client Sample ID: Effluent

Lab Sample ID: 500-138419-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	16		1.0	0.41	ug/L	1		624	Total/NA
Tetrachloroethene	26		1.0	0.37	ug/L	1		624	Total/NA
Trichloroethene	6.7		0.50	0.16	ug/L	1		624	Total/NA
HEM (Oil & Grease)	2.3	J	5.5	1.4	mg/L	1		1664B	Total/NA
Chloride	130		4.0	3.4	mg/L	20		300.0	Total/NA
Total Suspended Solids	2.0	J	5.0	1.9	mg/L	1		SM 2540D	Total/NA

## Client Sample ID: Trip Blank

Lab Sample ID: 500-138419-3

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Method Summary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL CHI
1664B	HEM and SGT-HEM	1664B	TAL CHI
300.0	Anions, Ion Chromatography	MCAWW	TAL CHI
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL CHI

#### Protocol References:

1664B = 1664B

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

#### Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Sample Summary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-138419-1	Influent	Water	12/08/17 10:40	12/09/17 10:25
500-138419-2	Effluent	Water	12/08/17 10:45	12/09/17 10:25
500-138419-3	Trip Blank	Water	12/08/17 00:00	12/09/17 10:25

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# Client Sample Results

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

**Client Sample ID: Influent**  
**Date Collected: 12/08/17 10:40**  
**Date Received: 12/09/17 10:25**

**Lab Sample ID: 500-138419-1**  
**Matrix: Water**

## Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.73		2.5	0.73	ug/L			12/13/17 11:51	5
Bromoform	<2.2		5.0	2.2	ug/L			12/13/17 11:51	5
Carbon tetrachloride	<1.9		5.0	1.9	ug/L			12/13/17 11:51	5
Chloroform	<1.9		10	1.9	ug/L			12/13/17 11:51	5
<b>cis-1,2-Dichloroethene</b>	<b>83</b>		5.0	2.0	ug/L			12/13/17 11:51	5
Dichlorobromomethane	<1.9		5.0	1.9	ug/L			12/13/17 11:51	5
1,2-Dichloroethane	<2.0		5.0	2.0	ug/L			12/13/17 11:51	5
1,1-Dichloroethene	<2.0		5.0	2.0	ug/L			12/13/17 11:51	5
Ethylbenzene	<0.92		2.5	0.92	ug/L			12/13/17 11:51	5
Methyl bromide	<3.2		10	3.2	ug/L			12/13/17 11:51	5
Methyl chloride	<1.6		5.0	1.6	ug/L			12/13/17 11:51	5
Methyl tert-butyl ether	<2.0		5.0	2.0	ug/L			12/13/17 11:51	5
1,1,2,2-Tetrachloroethane	<2.0		5.0	2.0	ug/L			12/13/17 11:51	5
Toluene	<0.76		2.5	0.76	ug/L			12/13/17 11:51	5
trans-1,2-Dichloroethene	<1.7		5.0	1.7	ug/L			12/13/17 11:51	5
1,1,1-Trichloroethane	<1.9		5.0	1.9	ug/L			12/13/17 11:51	5
1,1,2-Trichloroethane	<1.8		5.0	1.8	ug/L			12/13/17 11:51	5
<b>Trichloroethene</b>	<b>130</b>		2.5	0.82	ug/L			12/13/17 11:51	5
Vinyl chloride	<1.0		2.5	1.0	ug/L			12/13/17 11:51	5
Xylenes, Total	<2.0		5.0	2.0	ug/L			12/13/17 11:51	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		71 - 120					12/13/17 11:51	5
1,2-Dichloroethane-d4 (Surr)	106		71 - 127					12/13/17 11:51	5
Toluene-d8 (Surr)	92		75 - 120					12/13/17 11:51	5

## Method: 624 - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>1600</b>		50	19	ug/L			12/13/17 12:19	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		71 - 120					12/13/17 12:19	50
1,2-Dichloroethane-d4 (Surr)	107		71 - 127					12/13/17 12:19	50
Toluene-d8 (Surr)	90		75 - 120					12/13/17 12:19	50

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>HEM (Oil &amp; Grease)</b>	<b>2.7</b>	<b>J</b>	5.4	1.4	mg/L		12/11/17 11:01	12/11/17 14:30	1
<b>Chloride</b>	<b>130</b>		4.0	3.4	mg/L			12/13/17 12:48	20
Total Suspended Solids	<1.9		5.0	1.9	mg/L			12/12/17 11:15	1

# Client Sample Results

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

**Client Sample ID: Effluent**

**Date Collected: 12/08/17 10:45**

**Date Received: 12/09/17 10:25**

**Lab Sample ID: 500-138419-2**

**Matrix: Water**

## Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			12/13/17 12:45	1
Bromoform	<0.45		1.0	0.45	ug/L			12/13/17 12:45	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			12/13/17 12:45	1
Chloroform	<0.37		2.0	0.37	ug/L			12/13/17 12:45	1
<b>cis-1,2-Dichloroethene</b>	<b>16</b>		1.0	0.41	ug/L			12/13/17 12:45	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			12/13/17 12:45	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			12/13/17 12:45	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			12/13/17 12:45	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			12/13/17 12:45	1
Methyl bromide	<0.65		2.0	0.65	ug/L			12/13/17 12:45	1
Methyl chloride	<0.32		1.0	0.32	ug/L			12/13/17 12:45	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			12/13/17 12:45	1
1,1,1,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			12/13/17 12:45	1
<b>Tetrachloroethene</b>	<b>26</b>		1.0	0.37	ug/L			12/13/17 12:45	1
Toluene	<0.15		0.50	0.15	ug/L			12/13/17 12:45	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			12/13/17 12:45	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			12/13/17 12:45	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			12/13/17 12:45	1
<b>Trichloroethene</b>	<b>6.7</b>		0.50	0.16	ug/L			12/13/17 12:45	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			12/13/17 12:45	1
Xylenes, Total	<0.40		1.0	0.40	ug/L			12/13/17 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		71 - 120		12/13/17 12:45	1
1,2-Dichloroethane-d4 (Surr)	106		71 - 127		12/13/17 12:45	1
Toluene-d8 (Surr)	93		75 - 120		12/13/17 12:45	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>HEM (Oil &amp; Grease)</b>	<b>2.3</b>	<b>J</b>	5.5	1.4	mg/L		12/11/17 11:11	12/11/17 14:30	1
<b>Chloride</b>	<b>130</b>		4.0	3.4	mg/L			12/13/17 13:00	20
<b>Total Suspended Solids</b>	<b>2.0</b>	<b>J</b>	5.0	1.9	mg/L			12/12/17 11:16	1

# Client Sample Results

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

**Client Sample ID: Trip Blank**

**Lab Sample ID: 500-138419-3**

**Date Collected: 12/08/17 00:00**

**Matrix: Water**

**Date Received: 12/09/17 10:25**

**Method: 624 - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			12/13/17 11:24	1
Bromoform	<0.45		1.0	0.45	ug/L			12/13/17 11:24	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			12/13/17 11:24	1
Chloroform	<0.37		2.0	0.37	ug/L			12/13/17 11:24	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			12/13/17 11:24	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			12/13/17 11:24	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			12/13/17 11:24	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			12/13/17 11:24	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			12/13/17 11:24	1
Methyl bromide	<0.65		2.0	0.65	ug/L			12/13/17 11:24	1
Methyl chloride	<0.32		1.0	0.32	ug/L			12/13/17 11:24	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			12/13/17 11:24	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			12/13/17 11:24	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			12/13/17 11:24	1
Toluene	<0.15		0.50	0.15	ug/L			12/13/17 11:24	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			12/13/17 11:24	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			12/13/17 11:24	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			12/13/17 11:24	1
Trichloroethene	<0.16		0.50	0.16	ug/L			12/13/17 11:24	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			12/13/17 11:24	1
Xylenes, Total	<0.40		1.0	0.40	ug/L			12/13/17 11:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		71 - 120		12/13/17 11:24	1
1,2-Dichloroethane-d4 (Surr)	105		71 - 127		12/13/17 11:24	1
Toluene-d8 (Surr)	93		75 - 120		12/13/17 11:24	1

# Definitions/Glossary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

## Qualifiers

### General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)



# QC Association Summary

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

## GC/MS VOA

### Analysis Batch: 413553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-138419-1	Influent	Total/NA	Water	624	
500-138419-1 - DL	Influent	Total/NA	Water	624	
500-138419-2	Effluent	Total/NA	Water	624	
500-138419-3	Trip Blank	Total/NA	Water	624	
MB 500-413553/7	Method Blank	Total/NA	Water	624	
LCS 500-413553/5	Lab Control Sample	Total/NA	Water	624	

## General Chemistry

### Prep Batch: 413259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-138419-1	Influent	Total/NA	Water	1664B	
500-138419-2	Effluent	Total/NA	Water	1664B	
MB 500-413259/1-A	Method Blank	Total/NA	Water	1664B	
LCS 500-413259/2-A	Lab Control Sample	Total/NA	Water	1664B	

### Analysis Batch: 413260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-138419-1	Influent	Total/NA	Water	1664B	413259
500-138419-2	Effluent	Total/NA	Water	1664B	413259
MB 500-413259/1-A	Method Blank	Total/NA	Water	1664B	413259
LCS 500-413259/2-A	Lab Control Sample	Total/NA	Water	1664B	413259

### Analysis Batch: 413414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-138419-1	Influent	Total/NA	Water	SM 2540D	
500-138419-2	Effluent	Total/NA	Water	SM 2540D	
MB 500-413414/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 500-413414/2	Lab Control Sample	Total/NA	Water	SM 2540D	

### Analysis Batch: 413638

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-138419-1	Influent	Total/NA	Water	300.0	
500-138419-2	Effluent	Total/NA	Water	300.0	
MB 500-413638/6	Method Blank	Total/NA	Water	300.0	
LCS 500-413638/7	Lab Control Sample	Total/NA	Water	300.0	

# Surrogate Summary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

## Method: 624 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (71-120)	DCA (71-127)	TOL (75-120)
500-138419-1	Influent	89	106	92
500-138419-1 - DL	Influent	89	107	90
500-138419-2	Effluent	90	106	93
500-138419-3	Trip Blank	89	105	93
LCS 500-413553/5	Lab Control Sample	83	100	94
MB 500-413553/7	Method Blank	89	108	92

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DCA = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

# QC Sample Results

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

## Method: 624 - Volatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-413553/7**

**Matrix: Water**

**Analysis Batch: 413553**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			12/13/17 10:31	1
Bromoform	<0.45		1.0	0.45	ug/L			12/13/17 10:31	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			12/13/17 10:31	1
Chloroform	<0.37		2.0	0.37	ug/L			12/13/17 10:31	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			12/13/17 10:31	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			12/13/17 10:31	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			12/13/17 10:31	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			12/13/17 10:31	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			12/13/17 10:31	1
Methyl bromide	<0.65		2.0	0.65	ug/L			12/13/17 10:31	1
Methyl chloride	<0.32		1.0	0.32	ug/L			12/13/17 10:31	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			12/13/17 10:31	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			12/13/17 10:31	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			12/13/17 10:31	1
Toluene	<0.15		0.50	0.15	ug/L			12/13/17 10:31	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			12/13/17 10:31	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			12/13/17 10:31	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			12/13/17 10:31	1
Trichloroethene	<0.16		0.50	0.16	ug/L			12/13/17 10:31	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			12/13/17 10:31	1
Xylenes, Total	<0.40		1.0	0.40	ug/L			12/13/17 10:31	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		71 - 120		12/13/17 10:31	1
1,2-Dichloroethane-d4 (Surr)	108		71 - 127		12/13/17 10:31	1
Toluene-d8 (Surr)	92		75 - 120		12/13/17 10:31	1

**Lab Sample ID: LCS 500-413553/5**

**Matrix: Water**

**Analysis Batch: 413553**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	40.5		ug/L		81	37 - 151
Bromoform	50.0	48.0		ug/L		96	45 - 169
Carbon tetrachloride	50.0	42.8		ug/L		86	70 - 140
Chloroform	50.0	40.2		ug/L		80	51 - 138
cis-1,2-Dichloroethene	50.0	40.0		ug/L		80	70 - 130
Dichlorobromomethane	50.0	43.8		ug/L		88	35 - 155
1,2-Dichloroethane	50.0	46.1		ug/L		92	49 - 155
1,1-Dichloroethene	50.0	38.6		ug/L		77	10 - 234
Ethylbenzene	50.0	42.3		ug/L		85	37 - 162
Methyl bromide	50.0	39.9		ug/L		80	10 - 242
Methyl chloride	50.0	34.7		ug/L		69	10 - 273
m&p-Xylene	50.0	42.3		ug/L		85	
o-Xylene	50.0	42.4		ug/L		85	
1,1,2,2-Tetrachloroethane	50.0	39.2		ug/L		78	46 - 157
Tetrachloroethene	50.0	45.0		ug/L		90	64 - 148
Toluene	50.0	43.7		ug/L		87	47 - 150

TestAmerica Chicago

# QC Sample Results

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

## Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-413553/5**  
**Matrix: Water**  
**Analysis Batch: 413553**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,2-Dichloroethene	50.0	40.3		ug/L		81	54 - 156
1,1,1-Trichloroethane	50.0	42.6		ug/L		85	52 - 162
1,1,2-Trichloroethane	50.0	45.8		ug/L		92	52 - 150
Trichloroethene	50.0	40.9		ug/L		82	71 - 157
Vinyl chloride	50.0	37.8		ug/L		76	10 - 251

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	83		71 - 120
1,2-Dichloroethane-d4 (Surr)	100		71 - 127
Toluene-d8 (Surr)	94		75 - 120

## Method: 1664B - HEM and SGT-HEM

**Lab Sample ID: MB 500-413259/1-A**  
**Matrix: Water**  
**Analysis Batch: 413260**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 413259**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<1.3		5.0	1.3	mg/L		12/11/17 10:30	12/11/17 14:30	1

**Lab Sample ID: LCS 500-413259/2-A**  
**Matrix: Water**  
**Analysis Batch: 413260**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 413259**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	40.0	38.30		mg/L		96	78 - 114

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 500-413638/6**  
**Matrix: Water**  
**Analysis Batch: 413638**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.17		0.20	0.17	mg/L			12/13/17 12:16	1

**Lab Sample ID: LCS 500-413638/7**  
**Matrix: Water**  
**Analysis Batch: 413638**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.00	3.02		mg/L		101	90 - 110

TestAmerica Chicago

# QC Sample Results

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

## Method: SM 2540D - Solids, Total Suspended (TSS)

**Lab Sample ID: MB 500-413414/1**  
**Matrix: Water**  
**Analysis Batch: 413414**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	<1.9		5.0	1.9	mg/L			12/12/17 11:00	1

**Lab Sample ID: LCS 500-413414/2**  
**Matrix: Water**  
**Analysis Batch: 413414**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	200	208		mg/L		104	80 - 120

# Lab Chronicle

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

## Client Sample ID: Influent

Date Collected: 12/08/17 10:40

Date Received: 12/09/17 10:25

## Lab Sample ID: 500-138419-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		5	413553	12/13/17 11:51	PMF	TAL CHI
Total/NA	Analysis	624	DL	50	413553	12/13/17 12:19	PMF	TAL CHI
Total/NA	Prep	1664B			413259	12/11/17 11:01	FJD	TAL CHI
Total/NA	Analysis	1664B		1	413260	12/11/17 14:30	FJD	TAL CHI
Total/NA	Analysis	300.0		20	413638	12/13/17 12:48	CCK	TAL CHI
Total/NA	Analysis	SM 2540D		1	413414		SMO	TAL CHI
					(Start)	12/12/17 11:15		
					(End)	12/12/17 11:16		

## Client Sample ID: Effluent

Date Collected: 12/08/17 10:45

Date Received: 12/09/17 10:25

## Lab Sample ID: 500-138419-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	413553	12/13/17 12:45	PMF	TAL CHI
Total/NA	Prep	1664B			413259	12/11/17 11:11	FJD	TAL CHI
Total/NA	Analysis	1664B		1	413260	12/11/17 14:30	FJD	TAL CHI
Total/NA	Analysis	300.0		20	413638	12/13/17 13:00	CCK	TAL CHI
Total/NA	Analysis	SM 2540D		1	413414		SMO	TAL CHI
					(Start)	12/12/17 11:16		
					(End)	12/12/17 11:18		

## Client Sample ID: Trip Blank

Date Collected: 12/08/17 00:00

Date Received: 12/09/17 10:25

## Lab Sample ID: 500-138419-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	413553	12/13/17 11:24	PMF	TAL CHI

### Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Accreditation/Certification Summary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-1

## Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-18

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)  
Contact: Alina Satkoski  
Company: ASATKOSKI@  
Address: madison-kipp.com  
Address: +  
Phone: Andy Stehn  
Fax: Astehn@trcsolutions.com  
E-Mail: com

Bill To (optional)  
Contact: Accounts Payable  
Company: MCC  
Address: ap@madison-kipp.com  
Address: com  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
PO#/Reference# 106935

## Chain of Custody Record

Lab Job #: 500-13849  
Chain of Custody Number: \_\_\_\_\_  
Page 1 of 1  
Temperature °C of Cooler: 3.8

Client		Client Project #		Preservative		Parameter												Preservative Key		
MCC																		1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name		Project Location/State		Lab Project #		Sampler		Lab PM												
GETS		Madison, WI				Alina Satkoski		Sandie Frodnick												
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Oil + Grease	BOD/TSS/ Chloride	VOC	PAH										
			Date	Time							Comments									
1		Influent	12/8/17	1040	9	W	X	X	X	X	for VOC see attached analyte list									
2		Effluent	2/8/17	1045	9	W	X	X	X	X										
3		Trip Blank	-	-	1	W			X											



500-138419 COC

Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days  Other

Sample Disposal

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>Alina Satkoski</u> Company: <u>MCC</u> Date: <u>12/8/17</u> Time: <u>1:00</u>	Received By <u>John Sandoz</u> Company: <u>MCC</u> Date: <u>12/8/17</u> Time: <u>10:25</u>
Relinquished By _____ Company: _____ Date: _____ Time: _____	Received By _____ Company: _____ Date: <u>12/11/17 AS 12/11/17</u> Time: _____
Relinquished By _____ Company: _____ Date: _____ Time: _____	Received By _____ Company: _____ Date: _____ Time: _____

Lab Courier: \_\_\_\_\_  
Shipped: EX Saturday  
Hand Delivered: \_\_\_\_\_

Matrix Key  
 WW - Wastewater SE - Sediment  
 W - Water SO - Soil  
 S - Soil L - Leachate  
 SL - Sludge WI - Wipe  
 MS - Miscellaneous DW - Drinking Water  
 OL - Oil O - Other  
 A - Air

Client Comments

Lab Comments:  
one influent VOC vial has iron debris - please do not use if possible



ORIGIN ID:MSNA (518) 265-7189  
ALINA SATKOSKI  
MADISON-KIPP CORPORATION  
201 WAUBESA ST

MADISON, WI 53704  
UNITED STATES US

SHIP DATE: 08DEC17  
ACTWGT: 41.80 LB  
CAD: 6991630/SSF01822  
DIMS: 25x14x13 IN

BILL THIRD PARTY

Part # 1562972597 7/15/17 07/16

TO **ATTN: SAMPLE LOGIN**  
**TEST AMERICA LABS**  
**2417 BOND ST**

**UNIVERSITY PARK IL 60484**

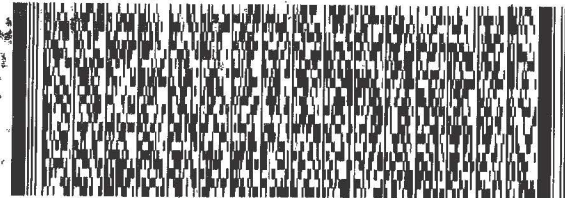
(708) 634-5200

REF:

YU1

DEPT:

PO1



**FedEx**  
Express



REL#  
3785346

TRK# 7888 3544 4037  
0201

**SATURDAY 12:00P**  
**PRIORITY OVERNIGHT**

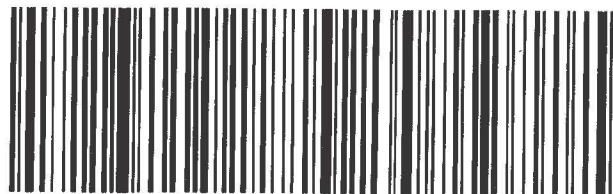
**XO JOTA**

**AHS**  
**60484**

IL-US **ORD**



500-138419 Waybill



**FedEx**  
Express



## Login Sample Receipt Checklist

Client: Madison-Kipp Corporation

Job Number: 500-138419-1

**Login Number: 138419**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: Sanchez, Ariel M**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-138419-2

Client Project/Site: MadisonKipp - GETS/SVE

For:

Madison-Kipp Corporation

201 Waubesa Street

Madison, Wisconsin 53704

Attn: Alina Satkoski



Authorized for release by:

12/14/2017 4:03:42 PM

Sandie Fredrick, Project Manager II

(920)261-1660

[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Case Narrative

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

**Job ID: 500-138419-2**

**Laboratory: TestAmerica Chicago**

## Narrative

### Job Narrative 500-138419-2

#### Comments

No additional comments.

#### Receipt

The samples were received on 12/9/2017 10:25 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.8° C.

#### Receipt Exceptions

COC has Influent sample at "10:45" and Effluent at "10:40", on the bottles times are switched. logged samples time per COC

Influent (500-138419-1), Effluent (500-138419-2) and Trip Blank (500-138419-3)

#### GC/MS Semi VOA

Method(s) 625 SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 490-482648 and analytical batch 490-482841.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Detection Summary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

## Client Sample ID: Influent

Lab Sample ID: 500-138419-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.056		0.045	0.022	ug/L	1		625 SIM	Total/NA
Benzo[b]fluoranthene	0.063		0.045	0.022	ug/L	1		625 SIM	Total/NA
Benzo[g,h,i]perylene	0.059	J	0.089	0.045	ug/L	1		625 SIM	Total/NA
Fluoranthene	0.087	J	0.089	0.045	ug/L	1		625 SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.044	J	0.045	0.022	ug/L	1		625 SIM	Total/NA
Naphthalene	0.054	J	0.089	0.045	ug/L	1		625 SIM	Total/NA
Phenanthrene	0.26		0.089	0.045	ug/L	1		625 SIM	Total/NA
Pyrene	0.052	J	0.089	0.045	ug/L	1		625 SIM	Total/NA

## Client Sample ID: Effluent

Lab Sample ID: 500-138419-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.058	J	0.10	0.050	ug/L	1		625 SIM	Total/NA
Naphthalene	0.073	J	0.10	0.050	ug/L	1		625 SIM	Total/NA
Phenanthrene	0.41		0.10	0.050	ug/L	1		625 SIM	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Method Summary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

Method	Method Description	Protocol	Laboratory
625 SIM	Semivolatile Organic Compounds GC/MS (SIM)	40CFR136A	TAL NSH
SM 5210B	BOD, 5-Day	SM	TAL CHI

**Protocol References:**

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

# Sample Summary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-138419-1	Influent	Water	12/08/17 10:40	12/09/17 10:25
500-138419-2	Effluent	Water	12/08/17 10:45	12/09/17 10:25

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# Client Sample Results

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

**Client Sample ID: Influent**

**Date Collected: 12/08/17 10:40**

**Date Received: 12/09/17 10:25**

**Lab Sample ID: 500-138419-1**

**Matrix: Water**

**Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.022		0.045	0.022	ug/L		12/12/17 16:28	12/13/17 13:50	1
<b>Benzo[a]pyrene</b>	<b>0.056</b>		0.045	0.022	ug/L		12/12/17 16:28	12/13/17 13:50	1
<b>Benzo[b]fluoranthene</b>	<b>0.063</b>		0.045	0.022	ug/L		12/12/17 16:28	12/13/17 13:50	1
<b>Benzo[g,h,i]perylene</b>	<b>0.059</b>	<b>J</b>	0.089	0.045	ug/L		12/12/17 16:28	12/13/17 13:50	1
Benzo[k]fluoranthene	<0.045		0.089	0.045	ug/L		12/12/17 16:28	12/13/17 13:50	1
Chrysene	<0.045		0.089	0.045	ug/L		12/12/17 16:28	12/13/17 13:50	1
Dibenz(a,h)anthracene	<0.022		0.045	0.022	ug/L		12/12/17 16:28	12/13/17 13:50	1
<b>Fluoranthene</b>	<b>0.087</b>	<b>J</b>	0.089	0.045	ug/L		12/12/17 16:28	12/13/17 13:50	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.044</b>	<b>J</b>	0.045	0.022	ug/L		12/12/17 16:28	12/13/17 13:50	1
<b>Naphthalene</b>	<b>0.054</b>	<b>J</b>	0.089	0.045	ug/L		12/12/17 16:28	12/13/17 13:50	1
<b>Phenanthrene</b>	<b>0.26</b>		0.089	0.045	ug/L		12/12/17 16:28	12/13/17 13:50	1
<b>Pyrene</b>	<b>0.052</b>	<b>J</b>	0.089	0.045	ug/L		12/12/17 16:28	12/13/17 13:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	58		27 - 120	12/12/17 16:28	12/13/17 13:50	1
Terphenyl-d14	75		13 - 120	12/12/17 16:28	12/13/17 13:50	1
2-Fluorobiphenyl (Surr)	54		10 - 120	12/12/17 16:28	12/13/17 13:50	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			12/09/17 12:56	1

# Client Sample Results

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

**Client Sample ID: Effluent**

**Date Collected: 12/08/17 10:45**

**Date Received: 12/09/17 10:25**

**Lab Sample ID: 500-138419-2**

**Matrix: Water**

**Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.025		0.050	0.025	ug/L		12/12/17 16:28	12/13/17 14:10	1
Benzo[a]pyrene	<0.025		0.050	0.025	ug/L		12/12/17 16:28	12/13/17 14:10	1
Benzo[b]fluoranthene	<0.025		0.050	0.025	ug/L		12/12/17 16:28	12/13/17 14:10	1
Benzo[g,h,i]perylene	<0.050		0.10	0.050	ug/L		12/12/17 16:28	12/13/17 14:10	1
Benzo[k]fluoranthene	<0.050		0.10	0.050	ug/L		12/12/17 16:28	12/13/17 14:10	1
Chrysene	<0.050		0.10	0.050	ug/L		12/12/17 16:28	12/13/17 14:10	1
Dibenz(a,h)anthracene	<0.025		0.050	0.025	ug/L		12/12/17 16:28	12/13/17 14:10	1
<b>Fluoranthene</b>	<b>0.058</b>	<b>J</b>	0.10	0.050	ug/L		12/12/17 16:28	12/13/17 14:10	1
Indeno[1,2,3-cd]pyrene	<0.025		0.050	0.025	ug/L		12/12/17 16:28	12/13/17 14:10	1
<b>Naphthalene</b>	<b>0.073</b>	<b>J</b>	0.10	0.050	ug/L		12/12/17 16:28	12/13/17 14:10	1
<b>Phenanthrene</b>	<b>0.41</b>		0.10	0.050	ug/L		12/12/17 16:28	12/13/17 14:10	1
Pyrene	<0.050		0.10	0.050	ug/L		12/12/17 16:28	12/13/17 14:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	62		27 - 120	12/12/17 16:28	12/13/17 14:10	1
Terphenyl-d14	83		13 - 120	12/12/17 16:28	12/13/17 14:10	1
2-Fluorobiphenyl (Surr)	58		10 - 120	12/12/17 16:28	12/13/17 14:10	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			12/09/17 13:00	1

# Definitions/Glossary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# QC Association Summary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

## GC/MS Semi VOA

### Prep Batch: 482648

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-138419-1	Influent	Total/NA	Water	625	
500-138419-2	Effluent	Total/NA	Water	625	
MB 490-482648/1-A	Method Blank	Total/NA	Water	625	
LCS 490-482648/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 490-482648/3-A	Lab Control Sample Dup	Total/NA	Water	625	

### Analysis Batch: 482841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-138419-1	Influent	Total/NA	Water	625 SIM	482648
500-138419-2	Effluent	Total/NA	Water	625 SIM	482648
MB 490-482648/1-A	Method Blank	Total/NA	Water	625 SIM	482648
LCS 490-482648/2-A	Lab Control Sample	Total/NA	Water	625 SIM	482648
LCSD 490-482648/3-A	Lab Control Sample Dup	Total/NA	Water	625 SIM	482648

## General Chemistry

### Analysis Batch: 413157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-138419-1	Influent	Total/NA	Water	SM 5210B	
500-138419-2	Effluent	Total/NA	Water	SM 5210B	
USB 500-413157/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 500-413157/2	Lab Control Sample	Total/NA	Water	SM 5210B	

# Surrogate Summary

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

## Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM)

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	NBZ	TPHL	FBP
		(27-120)	(13-120)	(10-120)
500-138419-1	Influent	58	75	54
500-138419-2	Effluent	62	83	58
LCS 490-482648/2-A	Lab Control Sample	67	81	64
LCSD 490-482648/3-A	Lab Control Sample Dup	78	91	77
MB 490-482648/1-A	Method Blank	67	89	64

#### Surrogate Legend

NBZ = Nitrobenzene-d5

TPHL = Terphenyl-d14

FBP = 2-Fluorobiphenyl (Surr)

# QC Sample Results

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

## Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM)

**Lab Sample ID: MB 490-482648/1-A**  
**Matrix: Water**  
**Analysis Batch: 482841**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 482648**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.025		0.050	0.025	ug/L		12/12/17 13:12	12/13/17 12:29	1
Benzo[a]pyrene	<0.025		0.050	0.025	ug/L		12/12/17 13:12	12/13/17 12:29	1
Benzo[b]fluoranthene	<0.025		0.050	0.025	ug/L		12/12/17 13:12	12/13/17 12:29	1
Benzo[g,h,i]perylene	<0.050		0.10	0.050	ug/L		12/12/17 13:12	12/13/17 12:29	1
Benzo[k]fluoranthene	<0.050		0.10	0.050	ug/L		12/12/17 13:12	12/13/17 12:29	1
Chrysene	<0.050		0.10	0.050	ug/L		12/12/17 13:12	12/13/17 12:29	1
Dibenz(a,h)anthracene	<0.025		0.050	0.025	ug/L		12/12/17 13:12	12/13/17 12:29	1
Fluoranthene	<0.050		0.10	0.050	ug/L		12/12/17 13:12	12/13/17 12:29	1
Indeno[1,2,3-cd]pyrene	<0.025		0.050	0.025	ug/L		12/12/17 13:12	12/13/17 12:29	1
Naphthalene	<0.050		0.10	0.050	ug/L		12/12/17 13:12	12/13/17 12:29	1
Phenanthrene	<0.050		0.10	0.050	ug/L		12/12/17 13:12	12/13/17 12:29	1
Pyrene	<0.050		0.10	0.050	ug/L		12/12/17 13:12	12/13/17 12:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	67		27 - 120	12/12/17 13:12	12/13/17 12:29	1
Terphenyl-d14	89		13 - 120	12/12/17 13:12	12/13/17 12:29	1
2-Fluorobiphenyl (Surr)	64		10 - 120	12/12/17 13:12	12/13/17 12:29	1

**Lab Sample ID: LCS 490-482648/2-A**  
**Matrix: Water**  
**Analysis Batch: 482841**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 482648**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	40.0	30.7		ug/L		77	33 - 143
Benzo[a]pyrene	40.0	26.4		ug/L		66	17 - 163
Benzo[b]fluoranthene	40.0	31.5		ug/L		79	24 - 159
Benzo[g,h,i]perylene	40.0	30.0		ug/L		75	10 - 219
Benzo[k]fluoranthene	40.0	26.0		ug/L		65	11 - 162
Chrysene	40.0	31.3		ug/L		78	17 - 168
Dibenz(a,h)anthracene	40.0	30.0		ug/L		75	10 - 227
Fluoranthene	40.0	28.1		ug/L		70	26 - 137
Indeno[1,2,3-cd]pyrene	40.0	30.4		ug/L		76	10 - 171
Naphthalene	40.0	28.7		ug/L		72	21 - 133
Phenanthrene	40.0	29.4		ug/L		74	54 - 120
Pyrene	40.0	33.2		ug/L		83	52 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	67		27 - 120
Terphenyl-d14	81		13 - 120
2-Fluorobiphenyl (Surr)	64		10 - 120

**Lab Sample ID: LCSD 490-482648/3-A**  
**Matrix: Water**  
**Analysis Batch: 482841**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 482648**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Benzo[a]anthracene	40.0	33.4		ug/L		84	33 - 143	8	30

TestAmerica Chicago

# QC Sample Results

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

## Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

**Lab Sample ID: LCSD 490-482648/3-A**  
**Matrix: Water**  
**Analysis Batch: 482841**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 482648**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]pyrene	40.0	28.1		ug/L		70	17 - 163	6	30
Benzo[b]fluoranthene	40.0	36.0		ug/L		90	24 - 159	13	30
Benzo[g,h,i]perylene	40.0	32.0		ug/L		80	10 - 219	6	30
Benzo[k]fluoranthene	40.0	26.5		ug/L		66	11 - 162	2	30
Chrysene	40.0	34.1		ug/L		85	17 - 168	8	30
Dibenz(a,h)anthracene	40.0	31.6		ug/L		79	10 - 227	5	30
Fluoranthene	40.0	31.4		ug/L		78	26 - 137	11	30
Indeno[1,2,3-cd]pyrene	40.0	32.2		ug/L		81	10 - 171	6	30
Naphthalene	40.0	29.2		ug/L		73	21 - 133	2	30
Phenanthrene	40.0	31.7		ug/L		79	54 - 120	7	30
Pyrene	40.0	36.4		ug/L		91	52 - 115	9	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
Nitrobenzene-d5	78		27 - 120
Terphenyl-d14	91		13 - 120
2-Fluorobiphenyl (Surr)	77		10 - 120

## Method: SM 5210B - BOD, 5-Day

**Lab Sample ID: USB 500-413157/1**  
**Matrix: Water**  
**Analysis Batch: 413157**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			12/09/17 12:44	1

**Lab Sample ID: LCS 500-413157/2**  
**Matrix: Water**  
**Analysis Batch: 413157**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	175		mg/L		88	85 - 115

# Lab Chronicle

Client: Madison-Kipp Corporation  
Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

## Client Sample ID: Influent

Date Collected: 12/08/17 10:40

Date Received: 12/09/17 10:25

## Lab Sample ID: 500-138419-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			482648	12/12/17 16:28	KB	TAL NSH
Total/NA	Analysis	625 SIM		1	482841	12/13/17 13:50	T1C	TAL NSH
Total/NA	Analysis	SM 5210B		1	413157	(Start) 12/09/17 12:56 (End) 12/09/17 13:00	SSN	TAL CHI

## Client Sample ID: Effluent

Date Collected: 12/08/17 10:45

Date Received: 12/09/17 10:25

## Lab Sample ID: 500-138419-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			482648	12/12/17 16:28	KB	TAL NSH
Total/NA	Analysis	625 SIM		1	482841	12/13/17 14:10	T1C	TAL NSH
Total/NA	Analysis	SM 5210B		1	413157	(Start) 12/09/17 13:00 (End) 12/09/17 13:04	SSN	TAL CHI

### Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



# Accreditation/Certification Summary

Client: Madison-Kipp Corporation  
 Project/Site: MadisonKipp - GETS/SVE

TestAmerica Job ID: 500-138419-2

## Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-18

## Laboratory: TestAmerica Nashville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
A2LA	A2LA		NA: NELAP & A2LA	12-31-17 *
A2LA	ISO/IEC 17025		0453.07	12-31-17 *
Alaska (UST)	State Program	10	UST-087	01-01-18 *
Arizona	State Program	9	AZ0473	05-05-18
Arkansas DEQ	State Program	6	88-0737	04-25-18
California	State Program	9	2938	10-31-18
Connecticut	State Program	1	PH-0220	12-31-17 *
Florida	NELAP	4	E87358	06-30-18
Georgia	State Program	4	E87358(FL)/453.07(A2L A)	06-30-18
Illinois	NELAP	5	200010	12-09-18
Iowa	State Program	7	131	04-01-18
Kansas	NELAP	7	E-10229	12-31-17 *
Kentucky (UST)	State Program	4	19	06-30-18
Kentucky (WW)	State Program	4	90038	12-31-17 *
Louisiana	NELAP	6	30613	06-30-18
Maine	State Program	1	TN00032	11-03-19
Maryland	State Program	3	316	03-31-18
Massachusetts	State Program	1	M-TN032	06-30-18
Minnesota	NELAP	5	047-999-345	12-31-17 *
Mississippi	State Program	4	N/A	06-30-18
Montana (UST)	State Program	8	NA	02-24-20
Nevada	State Program	9	TN00032	07-31-18
New Hampshire	NELAP	1	2963	10-09-18
New Jersey	NELAP	2	TN965	06-30-18
New York	NELAP	2	11342	03-31-18
North Carolina (WW/SW)	State Program	4	387	12-31-17 *
North Dakota	State Program	8	R-146	06-30-18
Ohio VAP	State Program	5	CL0033	07-06-19
Oklahoma	State Program	6	9412	08-31-18
Oregon	NELAP	10	TN200001	04-27-18
Pennsylvania	NELAP	3	68-00585	06-30-18
Rhode Island	State Program	1	LAO00268	12-30-17 *
South Carolina	State Program	4	84009 (001)	02-28-18
South Carolina (Do Not Use - DW)	State Program	4	84009 (002)	12-16-17
Tennessee	State Program	4	2008	02-23-20
Texas	NELAP	6	T104704077	08-31-18
USDA	Federal		P330-13-00306	12-01-19
Utah	NELAP	8	TN00032	07-31-18
Virginia	NELAP	3	460152	06-14-18
Washington	State Program	10	C789	07-19-18
West Virginia DEP	State Program	3	219	02-28-18
Wisconsin	State Program	5	998020430	08-31-18
Wyoming (UST)	A2LA	8	453.07	12-31-19

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

TestAmerica Chicago

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)  
 Contact: Alina Satkoski  
 Company: ASATKOSKI@  
 Address: MADISON-KIPP.COM  
 Address: +  
 Phone: Andy Stehn  
 Fax: Astehn@trcsolutions.  
 E-Mail: COM

Bill To (optional)  
 Contact: Accounts Payable  
 Company: MKC  
 Address: ap@madison-kipp.  
 Address: COM  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 PO#/Reference# 106935

## Chain of Custody Record

Lab Job #: 500-13849  
 Chain of Custody Number: \_\_\_\_\_  
 Page 1 of 1  
 Temperature °C of Cooler: 3.8

Client		Client Project #		Preservative		Parameter												Preservative Key			
MCC																		1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other			
Project Name		Project Location/State		Lab Project #																	
GETS		Madison, WI																			
Sampler		Lab PM																			
Alina Satkoski		Sandie Frodnick																			
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Oil + Grease	BOD/TSS/ Chloride	VOC	PAH											Comments
			Date	Time																	
1		Influent	12/8/17	1040	9	W	X	X	X	X											for VOC see
2		Effluent	2/8/17	1045	9	W	X	X	X	X											attached
3		Trip Blank	-	-	1	W			X												analyte list



500-138419 COC

Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days  Other

Sample Disposal

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
<u>Alina Satkoski</u>	<u>MCC</u>	<u>12/8/17</u>	<u>12:00</u>	<u>John Sandoz</u>	<u>MCC</u>	<u>12/8/17</u>	<u>10:25</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
						<u>12/11/17 AS</u>	<u>12/11/17</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: \_\_\_\_\_

Shipped: EX Saturday

Hand Delivered: \_\_\_\_\_

- Matrix Key
- WW - Wastewater
  - W - Water
  - S - Soil
  - SL - Sludge
  - MS - Miscellaneous
  - OL - Oil
  - A - Air
  - SE - Sediment
  - SO - Soil
  - L - Leachate
  - WI - Wipe
  - DW - Drinking Water
  - O - Other

Client Comments

Lab Comments:  
one influent VOC vial has iron debris - please do not use if possible

ORIGIN ID:MSNA (518) 265-7189  
ALINA SATKOSKI  
MADISON-KIPP CORPORATION  
201 WAUBESA ST

MADISON, WI 53704  
UNITED STATES US

SHIP DATE: 08DEC17  
ACTWGT: 41.80 LB  
CAD: 6991630/SSF01822  
DIMS: 25x14x13 IN

BILL THIRD PARTY

Part # 1562972897 71457 1549 0716

TO **ATTN: SAMPLE LOGIN**  
**TEST AMERICA LABS**  
**2417 BOND ST**

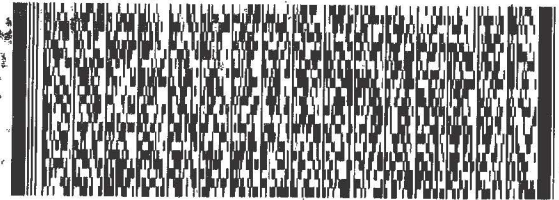
**UNIVERSITY PARK IL 60484**

(708) 634-5200

REF:

NU:

DEPT:



**FedEx**  
Express



REL#  
3785346

TRK# 7888 3544 4037  
0201

**SATURDAY 12:00P**  
**PRIORITY OVERNIGHT**

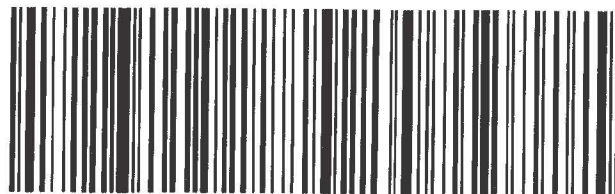
**XO JOTA**

AHS  
60484

IL-US ORD



500-138419 Waybill



**FedEx**  
Express



## COOLER RECEIPT FORM



Cooler Received/Opened On 12/12/17 0955

Time Samples Removed From Cooler 13:34 Time Samples Placed In Storage 13:30 (2 Hour Window)

1. Tracking # 3920 (last 4 digits, FedEx) Courier: FedEx  
IR Gun ID 31470368 pH Strip Lot \_\_\_\_\_ Chlorine Strip Lot \_\_\_\_\_

2. Temperature of rep. sample or temp blank when opened: 3.2 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO... NA

4. Were custody seals on outside of cooler?  YES...NO...NA

If yes, how many and where: 2 front/back

5. Were the seals intact, signed, and dated correctly?  YES...NO...NA

6. Were custody papers inside cooler?  YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) JKB

7. Were custody seals on containers: YES  NO and Intact YES...NO... NA

Were these signed and dated correctly? YES...NO... NA

8. Packing mat'l used?  Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process:  Ice Ice-pack Ice (direct contact) Dry Ice Other None

10. Did all containers arrive in good condition (unbroken)?  YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)?  YES...NO...NA

12. Did all container labels and tags agree with custody papers?  YES...NO...NA

13a. Were VOA vials received? YES... NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO... NA



14. Was there a Trip Blank in this cooler? YES... NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) J.J

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO... NA

b. Did the bottle labels indicate that the correct preservatives were used  YES...NO...NA

16. Was residual chlorine present? YES...NO... NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) J.J

17. Were custody papers properly filled out (ink, signed, etc)?  YES...NO...NA

18. Did you sign the custody papers in the appropriate place?  YES...NO...NA

19. Were correct containers used for the analysis requested?  YES...NO...NA

20. Was sufficient amount of sample sent in each container?  YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) J.J

I certify that I attached a label with the unique LIMS number to each container (initial) J.J

21. Were there Non-Conformance issues at login? YES... NO Was a NCM generated? YES... NO...# \_\_\_\_\_

Chain of Custody Record

Loc: 500

138419

<b>Client Information (Sub Contract Lab)</b>		Sampler:		Lab PM:		COC No:	
Client Contact: Shipping/Receiving		Phone:		Fredrick, Sandie J		500-97545.1	
Company: TestAmerica Laboratories, Inc		Accreditations Required (See note): State Program - Wisconsin		E-Mail: sandie.fredrick@testamericainc.com		Page: Page 1 of 1	
Address: 2960 Foster Creighton Drive, City: Nashville State, Zip: TN, 37204 Phone: 615-726-0177(Tel) 615-726-3404(Fax) Email:		Due Date Requested: 12/14/2017 TAT Requested (days):		Analysis Requested		Job #: 500-138419-2	
Project Name: MadisonKipp - GETS/SVE		Project #: 50009145		Field Filtered Sample (Yes or No)		Preservation Codes:	
Site:		SSOW#:		Part from MS/MSD (Yes or No)		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDTA Z - other (specify)	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)	
Matrix (W=water, S=solid, O=waste/roll, BT=Tissue, A=Air)		Preservation Code:		Field Filtered Sample (Yes or No)		Total Number of Containers	
Influent (500-138419-1)		12/8/17		10:40 Central		Water	
Effluent (500-138419-2)		12/8/17		10:45 Central		Water	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.		Possible Hazard Identification		Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)			
Unconfirmed		Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: 12/11/17 @ 1630		Company: TA		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Date/Time: 12/12/17 09:55	
Relinquished by:		Date/Time:		Company:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 32			



# Login Sample Receipt Checklist

Client: Madison-Kipp Corporation

Job Number: 500-138419-2

**Login Number: 138419**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: Sanchez, Ariel M**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Nashville  
2960 Foster Creighton Drive  
Nashville, TN 37204  
Tel: (615)726-0177

TestAmerica Job ID: 490-144103-1  
Client Project/Site: MadisonKipp - GETS 292257

For:  
TRC Environmental Corporation.  
708 Heartland Trail  
Suite 3000  
Madison, Wisconsin 53717

Attn: Andrew Stehn



Authorized for release by:  
1/8/2018 3:46:47 PM

Sandie Fredrick, Project Manager II  
(920)261-1660  
[sandie.fredrick@testamericainc.com](mailto:sandie.fredrick@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Sample Summary

Client: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 490-144103-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-144103-1	INFLUENT	Wastewater	01/03/18 13:30	01/05/18 10:05
490-144103-2	EFFLUENT	Wastewater	01/03/18 13:20	01/05/18 10:05

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# Case Narrative

Client: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 490-144103-1

**Job ID: 490-144103-1**

**Laboratory: TestAmerica Nashville**

## Narrative

**Job Narrative  
490-144103-1**

## Comments

No additional comments.

## Receipt

The samples were received on 1/5/2018 10:05 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.8° C.

## GC/MS Semi VOA

Method(s) 625 SIM: The method blank for preparation batch 490-487817 and analytical batch 490-487752 contained Indeno[1,2,3-cd]pyrene, Benzo[b]fluoranthene, Benzo[a]pyrene and Benzo[g,h,i]perylene above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction of samples was not performed.

Method(s) 625 SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 490-487817 and analytical batch 490-487752.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Definitions/Glossary

Client: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 490-144103-1

## Qualifiers

### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Client Sample Results

Client: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 490-144103-1

**Client Sample ID: INFLUENT**

**Date Collected: 01/03/18 13:30**

**Date Received: 01/05/18 10:05**

**Lab Sample ID: 490-144103-1**

**Matrix: Wastewater**

**Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.019		0.094	0.019	ug/L		01/05/18 12:43	01/05/18 19:34	1
Benzo[a]pyrene	<0.019		0.094	0.019	ug/L		01/05/18 12:43	01/05/18 19:34	1
Benzo[b]fluoranthene	<0.019		0.094	0.019	ug/L		01/05/18 12:43	01/05/18 19:34	1
Benzo[g,h,i]perylene	<0.019		0.094	0.019	ug/L		01/05/18 12:43	01/05/18 19:34	1
Benzo[k]fluoranthene	<0.019		0.094	0.019	ug/L		01/05/18 12:43	01/05/18 19:34	1
Chrysene	<0.019		0.094	0.019	ug/L		01/05/18 12:43	01/05/18 19:34	1
Dibenz(a,h)anthracene	<0.019		0.094	0.019	ug/L		01/05/18 12:43	01/05/18 19:34	1
Fluoranthene	<0.028		0.094	0.028	ug/L		01/05/18 12:43	01/05/18 19:34	1
Indeno[1,2,3-cd]pyrene	<0.019		0.094	0.019	ug/L		01/05/18 12:43	01/05/18 19:34	1
Naphthalene	<0.019		0.094	0.019	ug/L		01/05/18 12:43	01/05/18 19:34	1
Phenanthrene	<0.028		0.094	0.028	ug/L		01/05/18 12:43	01/05/18 19:34	1
Pyrene	<0.019		0.094	0.019	ug/L		01/05/18 12:43	01/05/18 19:34	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)	59		10 - 120				01/05/18 12:43	01/05/18 19:34	1
Nitrobenzene-d5	66		27 - 120				01/05/18 12:43	01/05/18 19:34	1
Terphenyl-d14	95		13 - 120				01/05/18 12:43	01/05/18 19:34	1

# Client Sample Results

Client: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 490-144103-1

**Client Sample ID: EFFLUENT**

**Date Collected: 01/03/18 13:20**

**Date Received: 01/05/18 10:05**

**Lab Sample ID: 490-144103-2**

**Matrix: Wastewater**

**Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.019		0.093	0.019	ug/L		01/05/18 12:43	01/05/18 19:54	1
Benzo[a]pyrene	<0.019		0.093	0.019	ug/L		01/05/18 12:43	01/05/18 19:54	1
Benzo[b]fluoranthene	<0.019		0.093	0.019	ug/L		01/05/18 12:43	01/05/18 19:54	1
Benzo[g,h,i]perylene	<0.019		0.093	0.019	ug/L		01/05/18 12:43	01/05/18 19:54	1
Benzo[k]fluoranthene	<0.019		0.093	0.019	ug/L		01/05/18 12:43	01/05/18 19:54	1
Chrysene	<0.019		0.093	0.019	ug/L		01/05/18 12:43	01/05/18 19:54	1
Dibenz(a,h)anthracene	<0.019		0.093	0.019	ug/L		01/05/18 12:43	01/05/18 19:54	1
Fluoranthene	<0.028		0.093	0.028	ug/L		01/05/18 12:43	01/05/18 19:54	1
Indeno[1,2,3-cd]pyrene	<0.019		0.093	0.019	ug/L		01/05/18 12:43	01/05/18 19:54	1
Naphthalene	<0.019		0.093	0.019	ug/L		01/05/18 12:43	01/05/18 19:54	1
Phenanthrene	<0.028		0.093	0.028	ug/L		01/05/18 12:43	01/05/18 19:54	1
Pyrene	<0.019		0.093	0.019	ug/L		01/05/18 12:43	01/05/18 19:54	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl (Surr)	63		10 - 120				01/05/18 12:43	01/05/18 19:54	1
Nitrobenzene-d5	71		27 - 120				01/05/18 12:43	01/05/18 19:54	1
Terphenyl-d14	95		13 - 120				01/05/18 12:43	01/05/18 19:54	1

# QC Sample Results

Client: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 490-144103-1

## Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM)

**Lab Sample ID: MB 490-487817/1-A**

**Matrix: Water**

**Analysis Batch: 487752**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 487817**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.020		0.10	0.020	ug/L		01/05/18 12:43	01/05/18 18:34	1
Benzo[a]pyrene	0.0208	J	0.10	0.020	ug/L		01/05/18 12:43	01/05/18 18:34	1
Benzo[b]fluoranthene	0.0209	J	0.10	0.020	ug/L		01/05/18 12:43	01/05/18 18:34	1
Benzo[g,h,i]perylene	0.0418	J	0.10	0.020	ug/L		01/05/18 12:43	01/05/18 18:34	1
Benzo[k]fluoranthene	<0.020		0.10	0.020	ug/L		01/05/18 12:43	01/05/18 18:34	1
Chrysene	<0.020		0.10	0.020	ug/L		01/05/18 12:43	01/05/18 18:34	1
Dibenz(a,h)anthracene	<0.020		0.10	0.020	ug/L		01/05/18 12:43	01/05/18 18:34	1
Fluoranthene	<0.030		0.10	0.030	ug/L		01/05/18 12:43	01/05/18 18:34	1
Indeno[1,2,3-cd]pyrene	0.0209	J	0.10	0.020	ug/L		01/05/18 12:43	01/05/18 18:34	1
Naphthalene	<0.020		0.10	0.020	ug/L		01/05/18 12:43	01/05/18 18:34	1
Phenanthrene	<0.030		0.10	0.030	ug/L		01/05/18 12:43	01/05/18 18:34	1
Pyrene	<0.020		0.10	0.020	ug/L		01/05/18 12:43	01/05/18 18:34	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	60		10 - 120	01/05/18 12:43	01/05/18 18:34	1
Nitrobenzene-d5	71		27 - 120	01/05/18 12:43	01/05/18 18:34	1
Terphenyl-d14	83		13 - 120	01/05/18 12:43	01/05/18 18:34	1

**Lab Sample ID: LCS 490-487817/2-A**

**Matrix: Water**

**Analysis Batch: 487752**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 487817**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	2.00	1.58		ug/L		79	33 - 143
Benzo[a]pyrene	2.00	1.42		ug/L		71	17 - 163
Benzo[b]fluoranthene	2.00	1.70		ug/L		85	24 - 159
Benzo[g,h,i]perylene	2.00	1.42		ug/L		71	10 - 219
Benzo[k]fluoranthene	2.00	1.34		ug/L		67	11 - 162
Chrysene	2.00	1.66		ug/L		83	17 - 168
Dibenz(a,h)anthracene	2.00	1.43		ug/L		72	10 - 227
Fluoranthene	2.00	1.29		ug/L		65	26 - 137
Indeno[1,2,3-cd]pyrene	2.00	1.51		ug/L		75	10 - 171
Naphthalene	2.00	1.30		ug/L		65	21 - 133
Phenanthrene	2.00	1.46		ug/L		73	54 - 120
Pyrene	2.00	1.74		ug/L		87	52 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	67		10 - 120
Nitrobenzene-d5	62		27 - 120
Terphenyl-d14	93		13 - 120

**Lab Sample ID: LCSD 490-487817/3-A**

**Matrix: Water**

**Analysis Batch: 487752**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 487817**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Benzo[a]anthracene	2.00	1.46		ug/L		73	33 - 143	8	30

TestAmerica Nashville

# QC Sample Results

Client: TRC Environmental Corporation.  
 Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 490-144103-1

## Method: 625 SIM - Semivolatile Organic Compounds GC/MS (SIM) (Continued)

**Lab Sample ID: LCSD 490-487817/3-A**  
**Matrix: Water**  
**Analysis Batch: 487752**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 487817**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]pyrene	2.00	1.31		ug/L		65	17 - 163	9	30
Benzo[b]fluoranthene	2.00	1.66		ug/L		83	24 - 159	2	30
Benzo[g,h,i]perylene	2.00	1.39		ug/L		69	10 - 219	2	30
Benzo[k]fluoranthene	2.00	1.27		ug/L		64	11 - 162	5	30
Chrysene	2.00	1.59		ug/L		80	17 - 168	5	30
Dibenz(a,h)anthracene	2.00	1.39		ug/L		70	10 - 227	3	30
Fluoranthene	2.00	1.23		ug/L		62	26 - 137	5	30
Indeno[1,2,3-cd]pyrene	2.00	1.44		ug/L		72	10 - 171	4	30
Naphthalene	2.00	1.18		ug/L		59	21 - 133	10	30
Phenanthrene	2.00	1.40		ug/L		70	54 - 120	4	30
Pyrene	2.00	1.66		ug/L		83	52 - 115	4	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	67		10 - 120
Nitrobenzene-d5	58		27 - 120
Terphenyl-d14	87		13 - 120

# QC Association Summary

Client: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 490-144103-1

## GC/MS Semi VOA

### Analysis Batch: 487752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-144103-1	INFLUENT	Total/NA	Wastewater	625 SIM	487817
490-144103-2	EFFLUENT	Total/NA	Wastewater	625 SIM	487817
MB 490-487817/1-A	Method Blank	Total/NA	Water	625 SIM	487817
LCS 490-487817/2-A	Lab Control Sample	Total/NA	Water	625 SIM	487817
LCSD 490-487817/3-A	Lab Control Sample Dup	Total/NA	Water	625 SIM	487817

### Prep Batch: 487817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-144103-1	INFLUENT	Total/NA	Wastewater	625	
490-144103-2	EFFLUENT	Total/NA	Wastewater	625	
MB 490-487817/1-A	Method Blank	Total/NA	Water	625	
LCS 490-487817/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 490-487817/3-A	Lab Control Sample Dup	Total/NA	Water	625	



# Lab Chronicle

Client: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 490-144103-1

## Client Sample ID: INFLUENT

Date Collected: 01/03/18 13:30

Date Received: 01/05/18 10:05

## Lab Sample ID: 490-144103-1

Matrix: Wastewater

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			1060 mL	1 mL	487817	01/05/18 12:43	SCR	TAL NSH
Total/NA	Analysis	625 SIM		1			487752	01/05/18 19:34	ZLN	TAL NSH

## Client Sample ID: EFFLUENT

Date Collected: 01/03/18 13:20

Date Received: 01/05/18 10:05

## Lab Sample ID: 490-144103-2

Matrix: Wastewater

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			1070 mL	1 mL	487817	01/05/18 12:43	SCR	TAL NSH
Total/NA	Analysis	625 SIM		1			487752	01/05/18 19:54	ZLN	TAL NSH

### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

# Method Summary

Client: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 490-144103-1

Method	Method Description	Protocol	Laboratory
625 SIM	Semivolatile Organic Compounds GC/MS (SIM)	40CFR136A	TAL NSH

**Protocol References:**

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177



# Accreditation/Certification Summary

Client: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 490-144103-1

## Laboratory: TestAmerica Nashville

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	998020430	08-31-18

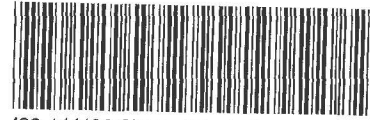
## Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-18

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12

## COOLER RECEIPT FORM



490-144103 Chain of Custody

Cooler Received/Opened On 01-05-2018 @ 10:05

Time Samples Removed From Cooler 11:07 Time Samples Placed In Storage 11:16 (2 Hour Window)

1. Tracking # 9964 (last 4 digits, FedEx) Courier: FedEx  
IR Gun ID 31470366 pH Strip Lot N/A Chlorine Strip Lot 072617F

2. Temperature of rep. sample or temp blank when opened: 21 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO.. NA

4. Were custody seals on outside of cooler? YES..NO...NA  
If yes, how many and where: 2 (front)

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) KD

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES..NO...NA

12. Did all container labels and tags agree with custody papers? YES..NO...NA

13a. Were VOA vials received? YES..NO..NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA



14. Was there a Trip Blank in this cooler? YES...NO..NA If multiple coolers, sequence # KD

I certify that I unloaded the cooler and answered questions 7-14 (initial) KD

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES..NO...NA

16. Was residual chlorine present? YES..NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) KD

17. Were custody papers properly filled out (ink, signed, etc)? YES..NO...NA

18. Did you sign the custody papers in the appropriate place? YES..NO...NA

19. Were correct containers used for the analysis requested? YES..NO...NA

20. Was sufficient amount of sample sent in each container? YES..NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) KD

I certify that I attached a label with the unique LIMS number to each container (initial) KD

21. Were there Non-Conformance issues at login? YES...NO..# Was a NCM generated? YES...NO..#

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)  
Contact: ANDREW STEHN  
Company: TRC  
Address: 708 Heartland Trail  
Address: Suite 3000  
Phone: 608-826-3665  
Fax: \_\_\_\_\_  
E-Mail: astehn@trcsolutions.com

Bill To (optional)  
Contact: Same as  
Company: Report To  
Address: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
PO#/Reference#: \_\_\_\_\_

## Chain of Custody Record

Lab Job #: \_\_\_\_\_  
Chain of Custody Number: \_\_\_\_\_  
Page 1 of 1  
Temperature °C of Cooler: \_\_\_\_\_

Client		Client Project #		Preservative		Parameter		Loc: 490 144103		Preservative Key		
TRC/MKC		292257		8		PAHs				1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other		
Project Name		Lab Project #		# of Containers		Matrix		Comments				
MUC GETS MONITORING												
Project Location/State		Lab Project #		Date		Time						
Madison / WI												
Sampler		Lab PM		Date		Time						
A. STEHN												
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix						
		INFLUENT	01/03/18	1330	2	W	X					
		EFFLUENT	01/03/18	13:20	2	W	X					

Page 15 of 16

Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days  Other

Sample Disposal

Return to Client

Disposal by Lab

Archive for \_\_\_\_\_ Months

(A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>Andrew Stehn</u>	Company <u>TRC</u>	Date <u>01/03/18</u>	Time <u>14:00</u>	Received By <u>[Signature]</u>	Company <u>TA-NAS</u>	Date <u>01-05-2018</u>	Time <u>10:05</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: \_\_\_\_\_  
Shipped: FED EX  
Hand Delivered: \_\_\_\_\_

- Matrix Key
- WW - Wastewater
  - W - Water
  - S - Soil
  - SL - Sludge
  - MS - Miscellaneous
  - OL - Oil
  - A - Air
  - SE - Sediment
  - SO - Soil
  - L - Leachate
  - WI - Wipe
  - DW - Drinking Water
  - O - Other

Client Comments: SEE ATTACHED PAH LIST

Lab Comments: Z.P.

1/8/2018



1  
2  
3  
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5  
6  
7  
8  
9  
10  
11  
12

**PAHs (Group of 10)**

Benzo(a)anthracene	625 SIM
Benzo(b)fluoranthene	
Benzo(g,h,i)perylene	
Benzo(k)fluoranthene	
Chrysene	
Dibenzo(a,h)anthracene	
Fluoranthene	
Indeno(1,2,3-cd)pyrene	
Phenanthrene	
Pyrene	

Loc: 490  
**144103**

**PAHs**

Benzo(a)pyrene	625 SIM
Naphthalene	

**Oil and Grease**

Oil and Grease	1664
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**BOD<sub>5</sub>**

BOD <sub>5</sub>	5210B
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**Anions**

Chloride	300
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