



February 7, 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 January with the exception of maintenance activities. This letter summarizes the activities completed in January 2018 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 operated at 40 gallons per minute (gpm) between January 1 and January 8, 2018 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 volatile organic compounds and visual monitoring for sodium permanganate on January 8, 2018. The compliance sample results for all parameters were below the WPDES discharge limits.

Based on the December 2017 compliance monitoring results for the PAH Group 10, additional monitoring for these parameters were completed on January 3, January 8, January 16, and January 23, 2018. Results from the four additional monitoring events reported no exceedances of the WPDES discharge limits for the PAHs Group 10. Based on the additional monitoring results and coordination with the WDNR, MKC will resume with quarterly monitoring for the PAH Group 10. The Discharge Monitoring Report for January 2018 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 [msheppard@madison-kipp.com](mailto:msheppard@madison-kipp.com) or (608) 242-5207.

Mark Sheppard

A handwritten signature in blue ink that reads "Mark Sheppard".

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**





**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 January 1 and January 8, 2018.

**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.

  
Signature of Person Completing Form 2-7-2018  
Date

  
Signature of Principal Exec. or Authorized Agent 2-7-2018  
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: 500-139410-1

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:

1/12/2018 10:28:00 AM

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

TestAmerica Job ID: 500-139410-1

**Job ID: 500-139410-1**

**Laboratory: TestAmerica Chicago**

## Narrative

**Job Narrative  
500-139410-1**

### Comments

No additional comments.

### Receipt

The samples were received on 1/9/2018 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.8° C.

### GC/MS VOA

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

### GC/MS Semi VOA

Method(s) 625 SIM: The continuing calibration verification (CCV) associated with batch 490-488526 recovered above the upper control limit for Benzo[a]anthracene, Chrysene, Pyrene and Benzo[b]fluoranthene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: (CCVIS 490-488526/2).

Method(s) 625 SIM: The surrogate recovery for the laboratory control sample (LCS) associated with preparation batch 490-488461 and analytical batch 490-488526 recovered above the upper control limit for 2,4,6-Tribromophenol. The associated samples were non-detect for all target analytes.

Method(s) 625 SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 490-488461/488792 and analytical batch 490-488526/488755.

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.

# Detection Summary

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

TestAmerica Job ID: 500-139410-1

## Client Sample ID: Effluent

Lab Sample ID: 500-139410-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	17		1.0	0.41	ug/L	1		624	Total/NA
Tetrachloroethene	29		1.0	0.37	ug/L	1		624	Total/NA
Trichloroethene	6.8		0.50	0.16	ug/L	1		624	Total/NA

## Client Sample ID: Influent

Lab Sample ID: 500-139410-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	170		5.0	2.0	ug/L	5		624	Total/NA
Trichloroethene	210		2.5	0.82	ug/L	5		624	Total/NA
Tetrachloroethene - DL	1800		50	19	ug/L	50		624	Total/NA

## Client Sample ID: Trip Blank

Lab Sample ID: 500-139410-3

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Method Summary

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

TestAmerica Job ID: 500-139410-1

Method	Method Description	Protocol	Laboratory
624	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL CHI
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 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: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 500-139410-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-139410-1	Effluent	Wastewater	01/08/18 12:45	01/09/18 09:45
500-139410-2	Influent	Wastewater	01/08/18 12:55	01/09/18 09:45
500-139410-3	Trip Blank	Water	01/08/18 00:00	01/09/18 09:45

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# Client Sample Results

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

TestAmerica Job ID: 500-139410-1

**Client Sample ID: Effluent**

**Date Collected: 01/08/18 12:45**

**Date Received: 01/09/18 09:45**

**Lab Sample ID: 500-139410-1**

**Matrix: Wastewater**

## 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			01/09/18 13:17	1
Bromoform	<0.45		1.0	0.45	ug/L			01/09/18 13:17	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			01/09/18 13:17	1
Chloroform	<0.37		2.0	0.37	ug/L			01/09/18 13:17	1
<b>cis-1,2-Dichloroethene</b>	<b>17</b>		1.0	0.41	ug/L			01/09/18 13:17	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			01/09/18 13:17	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			01/09/18 13:17	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			01/09/18 13:17	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			01/09/18 13:17	1
Methyl bromide	<0.65		2.0	0.65	ug/L			01/09/18 13:17	1
Methyl chloride	<0.32		1.0	0.32	ug/L			01/09/18 13:17	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			01/09/18 13:17	1
1,1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			01/09/18 13:17	1
<b>Tetrachloroethene</b>	<b>29</b>		1.0	0.37	ug/L			01/09/18 13:17	1
Toluene	<0.15		0.50	0.15	ug/L			01/09/18 13:17	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			01/09/18 13:17	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			01/09/18 13:17	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			01/09/18 13:17	1
<b>Trichloroethene</b>	<b>6.8</b>		0.50	0.16	ug/L			01/09/18 13:17	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			01/09/18 13:17	1
Xylenes, Total	<0.40		1.0	0.40	ug/L			01/09/18 13:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		71 - 120		01/09/18 13:17	1
1,2-Dichloroethane-d4 (Surr)	103		71 - 127		01/09/18 13:17	1
Toluene-d8 (Surr)	94		75 - 120		01/09/18 13:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 16:09	1
Benzo[a]pyrene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 16:09	1
Benzo[b]fluoranthene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 16:09	1
Benzo[g,h,i]perylene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 16:09	1
Benzo[k]fluoranthene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 16:09	1
Chrysene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 16:09	1
Dibenz(a,h)anthracene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 16:09	1
Fluoranthene	<0.030		0.10	0.030	ug/L		01/11/18 10:54	01/11/18 16:09	1
Indeno[1,2,3-cd]pyrene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 16:09	1
Naphthalene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 16:09	1
Phenanthrene	<0.030		0.10	0.030	ug/L		01/11/18 10:54	01/11/18 16:09	1
Pyrene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 16:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		10 - 120	01/11/18 10:54	01/11/18 16:09	1
Nitrobenzene-d5	60		27 - 120	01/11/18 10:54	01/11/18 16:09	1
Terphenyl-d14	74		13 - 120	01/11/18 10:54	01/11/18 16:09	1

TestAmerica Chicago

# Client Sample Results

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

TestAmerica Job ID: 500-139410-1

## Client Sample ID: Influent

Date Collected: 01/08/18 12:55

Date Received: 01/09/18 09:45

## Lab Sample ID: 500-139410-2

Matrix: Wastewater

### 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			01/09/18 13:47	5
Bromoform	<2.2		5.0	2.2	ug/L			01/09/18 13:47	5
Carbon tetrachloride	<1.9		5.0	1.9	ug/L			01/09/18 13:47	5
Chloroform	<1.9		10	1.9	ug/L			01/09/18 13:47	5
<b>cis-1,2-Dichloroethene</b>	<b>170</b>		5.0	2.0	ug/L			01/09/18 13:47	5
Dichlorobromomethane	<1.9		5.0	1.9	ug/L			01/09/18 13:47	5
1,2-Dichloroethane	<2.0		5.0	2.0	ug/L			01/09/18 13:47	5
1,1-Dichloroethene	<2.0		5.0	2.0	ug/L			01/09/18 13:47	5
Ethylbenzene	<0.92		2.5	0.92	ug/L			01/09/18 13:47	5
Methyl bromide	<3.2		10	3.2	ug/L			01/09/18 13:47	5
Methyl chloride	<1.6		5.0	1.6	ug/L			01/09/18 13:47	5
Methyl tert-butyl ether	<2.0		5.0	2.0	ug/L			01/09/18 13:47	5
1,1,2,2-Tetrachloroethane	<2.0		5.0	2.0	ug/L			01/09/18 13:47	5
Toluene	<0.76		2.5	0.76	ug/L			01/09/18 13:47	5
trans-1,2-Dichloroethene	<1.7		5.0	1.7	ug/L			01/09/18 13:47	5
1,1,1-Trichloroethane	<1.9		5.0	1.9	ug/L			01/09/18 13:47	5
1,1,2-Trichloroethane	<1.8		5.0	1.8	ug/L			01/09/18 13:47	5
<b>Trichloroethene</b>	<b>210</b>		2.5	0.82	ug/L			01/09/18 13:47	5
Vinyl chloride	<1.0		2.5	1.0	ug/L			01/09/18 13:47	5
Xylenes, Total	<2.0		5.0	2.0	ug/L			01/09/18 13:47	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		71 - 120		01/09/18 13:47	5
1,2-Dichloroethane-d4 (Surr)	98		71 - 127		01/09/18 13:47	5
Toluene-d8 (Surr)	94		75 - 120		01/09/18 13:47	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>1800</b>		50	19	ug/L			01/09/18 14:17	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	86		71 - 120		01/09/18 14:17	50
1,2-Dichloroethane-d4 (Surr)	102		71 - 127		01/09/18 14:17	50
Toluene-d8 (Surr)	94		75 - 120		01/09/18 14:17	50

### 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		01/11/18 10:54	01/11/18 16:31	1
Benzo[a]pyrene	<0.019		0.094	0.019	ug/L		01/11/18 10:54	01/11/18 16:31	1
Benzo[b]fluoranthene	<0.019		0.094	0.019	ug/L		01/11/18 10:54	01/11/18 16:31	1
Benzo[g,h,i]perylene	<0.019		0.094	0.019	ug/L		01/11/18 10:54	01/11/18 16:31	1
Benzo[k]fluoranthene	<0.019		0.094	0.019	ug/L		01/11/18 10:54	01/11/18 16:31	1
Chrysene	<0.019		0.094	0.019	ug/L		01/11/18 10:54	01/11/18 16:31	1
Dibenz(a,h)anthracene	<0.019		0.094	0.019	ug/L		01/11/18 10:54	01/11/18 16:31	1
Fluoranthene	<0.028		0.094	0.028	ug/L		01/11/18 10:54	01/11/18 16:31	1
Indeno[1,2,3-cd]pyrene	<0.019		0.094	0.019	ug/L		01/11/18 10:54	01/11/18 16:31	1
Naphthalene	<0.019		0.094	0.019	ug/L		01/11/18 10:54	01/11/18 16:31	1
Phenanthrene	<0.028		0.094	0.028	ug/L		01/11/18 10:54	01/11/18 16:31	1
Pyrene	<0.019		0.094	0.019	ug/L		01/11/18 10:54	01/11/18 16:31	1

TestAmerica Chicago

# Client Sample Results

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

TestAmerica Job ID: 500-139410-1

## Client Sample ID: Influent

Date Collected: 01/08/18 12:55

Date Received: 01/09/18 09:45

## Lab Sample ID: 500-139410-2

Matrix: Wastewater

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		10 - 120	01/11/18 10:54	01/11/18 16:31	1
Nitrobenzene-d5	45		27 - 120	01/11/18 10:54	01/11/18 16:31	1
Terphenyl-d14	79		13 - 120	01/11/18 10:54	01/11/18 16:31	1

## Client Sample ID: Trip Blank

Date Collected: 01/08/18 00:00

Date Received: 01/09/18 09:45

## Lab Sample ID: 500-139410-3

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			01/09/18 12:48	1
Bromoform	<0.45		1.0	0.45	ug/L			01/09/18 12:48	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			01/09/18 12:48	1
Chloroform	<0.37		2.0	0.37	ug/L			01/09/18 12:48	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			01/09/18 12:48	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			01/09/18 12:48	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			01/09/18 12:48	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			01/09/18 12:48	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			01/09/18 12:48	1
Methyl bromide	<0.65		2.0	0.65	ug/L			01/09/18 12:48	1
Methyl chloride	<0.32		1.0	0.32	ug/L			01/09/18 12:48	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			01/09/18 12:48	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			01/09/18 12:48	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			01/09/18 12:48	1
Toluene	<0.15		0.50	0.15	ug/L			01/09/18 12:48	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			01/09/18 12:48	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			01/09/18 12:48	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			01/09/18 12:48	1
Trichloroethene	<0.16		0.50	0.16	ug/L			01/09/18 12:48	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			01/09/18 12:48	1
Xylenes, Total	<0.40		1.0	0.40	ug/L			01/09/18 12:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	85		71 - 120		01/09/18 12:48	1
1,2-Dichloroethane-d4 (Surr)	99		71 - 127		01/09/18 12:48	1
Toluene-d8 (Surr)	96		75 - 120		01/09/18 12:48	1

## Definitions/Glossary

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

TestAmerica Job ID: 500-139410-1

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

TestAmerica Job ID: 500-139410-1

## GC/MS VOA

### Analysis Batch: 416218

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-139410-1	Effluent	Total/NA	Wastewater	624	
500-139410-2	Influent	Total/NA	Wastewater	624	
500-139410-2 - DL	Influent	Total/NA	Wastewater	624	
500-139410-3	Trip Blank	Total/NA	Water	624	
MB 500-416218/9	Method Blank	Total/NA	Water	624	
LCS 500-416218/7	Lab Control Sample	Total/NA	Water	624	
500-139410-1 MS	Effluent	Total/NA	Wastewater	624	
500-139410-1 MSD	Effluent	Total/NA	Wastewater	624	

## GC/MS Semi VOA

### Analysis Batch: 488755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-139410-1	Effluent	Total/NA	Wastewater	625 SIM	488792
500-139410-2	Influent	Total/NA	Wastewater	625 SIM	488792
MB 490-488792/1-A	Method Blank	Total/NA	Water	625 SIM	488792
LCS 490-488792/2-A	Lab Control Sample	Total/NA	Water	625 SIM	488792
LCSD 490-488792/3-A	Lab Control Sample Dup	Total/NA	Water	625 SIM	488792

### Prep Batch: 488792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-139410-1	Effluent	Total/NA	Wastewater	625	
500-139410-2	Influent	Total/NA	Wastewater	625	
MB 490-488792/1-A	Method Blank	Total/NA	Water	625	
LCS 490-488792/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 490-488792/3-A	Lab Control Sample Dup	Total/NA	Water	625	

# Surrogate Summary

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

TestAmerica Job ID: 500-139410-1

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

Matrix: Wastewater

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (71-120)	DCA (71-127)	TOL (75-120)
500-139410-1	Effluent	86	103	94
500-139410-1 MS	Effluent	84	96	97
500-139410-1 MSD	Effluent	84	95	96
500-139410-2	Influent	86	98	94
500-139410-2 - DL	Influent	86	102	94

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (71-120)	DCA (71-127)	TOL (75-120)
500-139410-3	Trip Blank	85	99	96
LCS 500-416218/7	Lab Control Sample	85	94	96
MB 500-416218/9	Method Blank	87	102	95

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

TOL = Toluene-d8 (Surr)

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

Matrix: Wastewater

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (10-120)	NBZ (27-120)	TPHL (13-120)
500-139410-1	Effluent	59	60	74
500-139410-2	Influent	54	45	79

#### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)

NBZ = Nitrobenzene-d5

TPHL = Terphenyl-d14

## 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	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (10-120)	NBZ (27-120)	TPHL (13-120)
LCS 490-488792/2-A	Lab Control Sample	48	44	69
LCSD 490-488792/3-A	Lab Control Sample Dup	61	61	75
MB 490-488792/1-A	Method Blank	56	65	62

#### Surrogate Legend

TestAmerica Chicago

# Surrogate Summary

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

TestAmerica Job ID: 500-139410-1

FBP = 2-Fluorobiphenyl (Surr)  
NBZ = Nitrobenzene-d5  
TPHL = Terphenyl-d14

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# QC Sample Results

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

TestAmerica Job ID: 500-139410-1

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

**Lab Sample ID: MB 500-416218/9**

**Matrix: Water**

**Analysis Batch: 416218**

**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			01/09/18 12:18	1
Bromoform	<0.45		1.0	0.45	ug/L			01/09/18 12:18	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			01/09/18 12:18	1
Chloroform	<0.37		2.0	0.37	ug/L			01/09/18 12:18	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			01/09/18 12:18	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			01/09/18 12:18	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			01/09/18 12:18	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			01/09/18 12:18	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			01/09/18 12:18	1
Methyl bromide	<0.65		2.0	0.65	ug/L			01/09/18 12:18	1
Methyl chloride	<0.32		1.0	0.32	ug/L			01/09/18 12:18	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			01/09/18 12:18	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			01/09/18 12:18	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			01/09/18 12:18	1
Toluene	<0.15		0.50	0.15	ug/L			01/09/18 12:18	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			01/09/18 12:18	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			01/09/18 12:18	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			01/09/18 12:18	1
Trichloroethene	<0.16		0.50	0.16	ug/L			01/09/18 12:18	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			01/09/18 12:18	1
Xylenes, Total	<0.40		1.0	0.40	ug/L			01/09/18 12:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		71 - 120		01/09/18 12:18	1
1,2-Dichloroethane-d4 (Surr)	102		71 - 127		01/09/18 12:18	1
Toluene-d8 (Surr)	95		75 - 120		01/09/18 12:18	1

**Lab Sample ID: LCS 500-416218/7**

**Matrix: Water**

**Analysis Batch: 416218**

**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	46.0		ug/L		92	37 - 151
Bromoform	50.0	50.7		ug/L		101	45 - 169
Carbon tetrachloride	50.0	46.0		ug/L		92	70 - 140
Chloroform	50.0	44.6		ug/L		89	51 - 138
cis-1,2-Dichloroethene	50.0	45.8		ug/L		92	70 - 130
Dichlorobromomethane	50.0	44.9		ug/L		90	35 - 155
1,2-Dichloroethane	50.0	46.0		ug/L		92	49 - 155
1,1-Dichloroethene	50.0	49.5		ug/L		99	10 - 234
Ethylbenzene	50.0	48.6		ug/L		97	37 - 162
Methyl bromide	50.0	56.3		ug/L		113	10 - 242
Methyl chloride	50.0	31.5		ug/L		63	10 - 273
m&p-Xylene	50.0	47.1		ug/L		94	
o-Xylene	50.0	46.1		ug/L		92	
1,1,2,2-Tetrachloroethane	50.0	44.5		ug/L		89	46 - 157
Tetrachloroethene	50.0	50.6		ug/L		101	64 - 148
Toluene	50.0	48.3		ug/L		97	47 - 150

TestAmerica Chicago



# QC Sample Results

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

TestAmerica Job ID: 500-139410-1

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

**Lab Sample ID: LCS 500-416218/7**

**Matrix: Water**

**Analysis Batch: 416218**

**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	48.0		ug/L		96	54 - 156
1,1,1-Trichloroethane	50.0	44.9		ug/L		90	52 - 162
1,1,2-Trichloroethane	50.0	48.7		ug/L		97	52 - 150
Trichloroethene	50.0	47.5		ug/L		95	71 - 157
Vinyl chloride	50.0	47.3		ug/L		95	10 - 251

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	85		71 - 120
1,2-Dichloroethane-d4 (Surr)	94		71 - 127
Toluene-d8 (Surr)	96		75 - 120

**Lab Sample ID: 500-139410-1 MS**

**Matrix: Wastewater**

**Analysis Batch: 416218**

**Client Sample ID: Effluent**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.15		50.0	48.6		ug/L		97	37 - 151
Bromoform	<0.45		50.0	53.2		ug/L		106	45 - 169
Carbon tetrachloride	<0.38		50.0	48.1		ug/L		96	70 - 140
Chloroform	<0.37		50.0	46.9		ug/L		94	51 - 138
cis-1,2-Dichloroethene	17		50.0	66.0		ug/L		97	70 - 130
Dichlorobromomethane	<0.37		50.0	47.4		ug/L		95	35 - 155
1,2-Dichloroethane	<0.39		50.0	49.0		ug/L		98	49 - 155
1,1-Dichloroethene	<0.39		50.0	51.9		ug/L		104	10 - 234
Ethylbenzene	<0.18		50.0	50.7		ug/L		101	37 - 162
Methyl bromide	<0.65		50.0	64.3		ug/L		129	10 - 242
Methyl chloride	<0.32		50.0	40.7		ug/L		81	10 - 273
m&p-Xylene	<0.40		50.0	49.3		ug/L		99	
o-Xylene	<0.22		50.0	48.2		ug/L		96	
1,1,1,2-Tetrachloroethane	<0.40		50.0	47.6		ug/L		95	46 - 157
Tetrachloroethene	29		50.0	82.1		ug/L		106	64 - 148
Toluene	<0.15		50.0	50.3		ug/L		101	47 - 150
trans-1,2-Dichloroethene	<0.35		50.0	50.7		ug/L		101	54 - 156
1,1,1-Trichloroethane	<0.38		50.0	46.7		ug/L		93	52 - 162
1,1,2-Trichloroethane	<0.35		50.0	51.9		ug/L		104	52 - 150
Trichloroethene	6.8		50.0	56.5		ug/L		99	71 - 157
Vinyl chloride	<0.20		50.0	52.8		ug/L		106	10 - 251

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	84		71 - 120
1,2-Dichloroethane-d4 (Surr)	96		71 - 127
Toluene-d8 (Surr)	97		75 - 120

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# QC Sample Results

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

TestAmerica Job ID: 500-139410-1

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

**Lab Sample ID: 500-139410-1 MSD**

**Matrix: Wastewater**

**Analysis Batch: 416218**

**Client Sample ID: Effluent**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.15		50.0	49.7		ug/L		99	37 - 151	2	20
Bromoform	<0.45		50.0	54.9		ug/L		110	45 - 169	3	20
Carbon tetrachloride	<0.38		50.0	49.3		ug/L		99	70 - 140	2	20
Chloroform	<0.37		50.0	48.6		ug/L		97	51 - 138	3	20
cis-1,2-Dichloroethene	17		50.0	66.2		ug/L		98	70 - 130	0	20
Dichlorobromomethane	<0.37		50.0	48.3		ug/L		97	35 - 155	2	20
1,2-Dichloroethane	<0.39		50.0	50.0		ug/L		100	49 - 155	2	20
1,1-Dichloroethene	<0.39		50.0	52.4		ug/L		105	10 - 234	1	20
Ethylbenzene	<0.18		50.0	51.6		ug/L		103	37 - 162	2	20
Methyl bromide	<0.65		50.0	61.9		ug/L		124	10 - 242	4	20
Methyl chloride	<0.32		50.0	39.4		ug/L		79	10 - 273	3	20
m&p-Xylene	<0.40		50.0	50.4		ug/L		101		2	
o-Xylene	<0.22		50.0	49.3		ug/L		99		2	
1,1,2,2-Tetrachloroethane	<0.40		50.0	48.3		ug/L		97	46 - 157	1	20
Tetrachloroethene	29		50.0	82.7		ug/L		107	64 - 148	1	20
Toluene	<0.15		50.0	51.4		ug/L		103	47 - 150	2	20
trans-1,2-Dichloroethene	<0.35		50.0	52.5		ug/L		105	54 - 156	3	20
1,1,1-Trichloroethane	<0.38		50.0	48.3		ug/L		97	52 - 162	3	20
1,1,2-Trichloroethane	<0.35		50.0	52.4		ug/L		105	52 - 150	1	20
Trichloroethene	6.8		50.0	57.6		ug/L		102	71 - 157	2	20
Vinyl chloride	<0.20		50.0	48.9		ug/L		98	10 - 251	7	20

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	84		71 - 120
1,2-Dichloroethane-d4 (Surr)	95		71 - 127
Toluene-d8 (Surr)	96		75 - 120

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

**Lab Sample ID: MB 490-488792/1-A**

**Matrix: Water**

**Analysis Batch: 488755**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 488792**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 15:03	1
Benzo[a]pyrene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 15:03	1
Benzo[b]fluoranthene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 15:03	1
Benzo[g,h,i]perylene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 15:03	1
Benzo[k]fluoranthene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 15:03	1
Chrysene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 15:03	1
Dibenz(a,h)anthracene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 15:03	1
Fluoranthene	<0.030		0.10	0.030	ug/L		01/11/18 10:54	01/11/18 15:03	1
Indeno[1,2,3-cd]pyrene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 15:03	1
Naphthalene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 15:03	1
Phenanthrene	<0.030		0.10	0.030	ug/L		01/11/18 10:54	01/11/18 15:03	1
Pyrene	<0.020		0.10	0.020	ug/L		01/11/18 10:54	01/11/18 15:03	1

TestAmerica Chicago

# QC Sample Results

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

TestAmerica Job ID: 500-139410-1

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

**Lab Sample ID: MB 490-488792/1-A**  
**Matrix: Water**  
**Analysis Batch: 488755**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 488792**

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl (Surr)	56		10 - 120	01/11/18 10:54	01/11/18 15:03	1
Nitrobenzene-d5	65		27 - 120	01/11/18 10:54	01/11/18 15:03	1
Terphenyl-d14	62		13 - 120	01/11/18 10:54	01/11/18 15:03	1

**Lab Sample ID: LCS 490-488792/2-A**  
**Matrix: Water**  
**Analysis Batch: 488755**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 488792**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
Benzo[a]pyrene	2.00	1.14		ug/L		57	17 - 163	
Benzo[b]fluoranthene	2.00	1.15		ug/L		57	24 - 159	
Benzo[g,h,i]perylene	2.00	1.14		ug/L		57	10 - 219	
Benzo[k]fluoranthene	2.00	1.22		ug/L		61	11 - 162	
Chrysene	2.00	1.48		ug/L		74	17 - 168	
Dibenz(a,h)anthracene	2.00	1.20		ug/L		60	10 - 227	
Fluoranthene	2.00	1.13		ug/L		56	26 - 137	
Indeno[1,2,3-cd]pyrene	2.00	1.13		ug/L		57	10 - 171	
Naphthalene	2.00	1.09		ug/L		55	21 - 133	
Phenanthrene	2.00	1.28		ug/L		64	54 - 120	
Pyrene	2.00	1.60		ug/L		80	52 - 115	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	48		10 - 120
Nitrobenzene-d5	44		27 - 120
Terphenyl-d14	69		13 - 120

**Lab Sample ID: LCSD 490-488792/3-A**  
**Matrix: Water**  
**Analysis Batch: 488755**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 488792**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	%Rec.	RPD	
									RPD	Limit
Benzo[a]anthracene	2.00	1.50		ug/L		75	33 - 143		6	30
Benzo[a]pyrene	2.00	1.22		ug/L		61	17 - 163		7	30
Benzo[b]fluoranthene	2.00	1.21		ug/L		61	24 - 159		6	30
Benzo[g,h,i]perylene	2.00	1.20		ug/L		60	10 - 219		6	30
Benzo[k]fluoranthene	2.00	1.30		ug/L		65	11 - 162		6	30
Chrysene	2.00	1.54		ug/L		77	17 - 168		4	30
Dibenz(a,h)anthracene	2.00	1.27		ug/L		64	10 - 227		6	30
Fluoranthene	2.00	1.17		ug/L		59	26 - 137		4	30
Indeno[1,2,3-cd]pyrene	2.00	1.21		ug/L		61	10 - 171		6	30
Naphthalene	2.00	1.38		ug/L		69	21 - 133		23	30
Phenanthrene	2.00	1.36		ug/L		68	54 - 120		6	30
Pyrene	2.00	1.73		ug/L		86	52 - 115		8	30

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	61		10 - 120

TestAmerica Chicago

# QC Sample Results

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

TestAmerica Job ID: 500-139410-1

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

Lab Sample ID: LCSD 490-488792/3-A

Matrix: Water

Analysis Batch: 488755

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 488792

<i>Surrogate</i>	<i>LCSD %Recovery</i>	<i>LCSD Qualifier</i>	<i>Limits</i>
<i>Nitrobenzene-d5</i>	61		27 - 120
<i>Terphenyl-d14</i>	75		13 - 120

# Lab Chronicle

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

TestAmerica Job ID: 500-139410-1

## Client Sample ID: Effluent

Date Collected: 01/08/18 12:45

Date Received: 01/09/18 09:45

## Lab Sample ID: 500-139410-1

Matrix: Wastewater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	416218	01/09/18 13:17	JDD	TAL CHI
Total/NA	Prep	625			488792	01/11/18 10:54	SCR	TAL NSH
Total/NA	Analysis	625 SIM		1	488755	01/11/18 16:09	T1C	TAL NSH

## Client Sample ID: Influent

Date Collected: 01/08/18 12:55

Date Received: 01/09/18 09:45

## Lab Sample ID: 500-139410-2

Matrix: Wastewater

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		5	416218	01/09/18 13:47	JDD	TAL CHI
Total/NA	Analysis	624	DL	50	416218	01/09/18 14:17	JDD	TAL CHI
Total/NA	Prep	625			488792	01/11/18 10:54	SCR	TAL NSH
Total/NA	Analysis	625 SIM		1	488755	01/11/18 16:31	T1C	TAL NSH

## Client Sample ID: Trip Blank

Date Collected: 01/08/18 00:00

Date Received: 01/09/18 09:45

## Lab Sample ID: 500-139410-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	416218	01/09/18 12:48	JDD	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: TRC Environmental Corporation.  
Project/Site: MadisonKipp - GETS 292257

TestAmerica Job ID: 500-139410-1

## 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

## 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

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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 Andy (optional)  
 Contact: Andy Stehn  
 Company: TRC  
 Address: 708 Heartland Tr  
 Address: Madison WI 53717  
 Phone: (608) 826-3665  
 Fax:  
 E-Mail: astehn@trcsolutions.com

Bill To (optional)  
 Contact: Andy  
 Company:  
 Address:  
 Address: SAME  
 Phone:  
 Fax:  
 PO#/Reference#: 117375

## Chain of Custody Record

Lab Job #: 500-139410  
 Chain of Custody Number: 939372  
 Page 1 of 1  
 Temperature °C of Cooler: 5.8

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 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 #		Date		Time		# of Containers			Comments
Project Location/State		Lab PM		Date		Time		Matrix			
Sampler		Lab Project #		Date		Time		# of Containers			
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix					
1		Effluent	11/8/18	1245	5	W	X	X			
2		Influent	11/8/18	1255	5	W	X	X			
3		Trp Blank	11/9/17	-	1	W	X				

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>[Signature]</u> Company: <u>TRC</u> Date: <u>11/8/18</u> Time: <u>1700</u>	Received By: <u>[Signature]</u> Company: <u>TA</u> Date: <u>01/09/18</u> Time: <u>0945</u>	Lab Courier
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	Shipped <input checked="" type="checkbox"/>
Relinquished By: _____ Company: _____ Date: _____ Time: _____	Received By: _____ Company: _____ Date: _____ Time: _____	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  
PAH LIST ATTACHED  
VOC LIST ATTACHED

Lab Comments:  
  
 500-139410 COC



Parameter	Method
<b>VOCs</b>	
Bromoform	624
Carbon Tetrachloride	624
Dichlorobromomethane	624
1,2-Dichloroethane	624
1,1-Dichloroethylene	624
Methyl Bromide	624
Methyl Chloride	624
1,1,2,2-Tetrachloroethane	624
Tetrachloroethylene	624
1,1,2-Trichloroethane	624
1,1,1-Trichloroethane	624
Trichloroethylene	624
Vinyl Chloride	624
Cis-1,2-Dichloroethene	624
Trans-1,2-Dichloroethene	624
<b>TSS</b>	
Suspended Solids, Total	2540D
<b>BTEX</b>	
Benzene	624
Toluene	
Ethylbenzene	
Xylenes	



**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	

**PAHs**

Benzo(a)pyrene	625 SIM
Naphthalene	

**Oil and Grease**

Oil and Grease	1664
----------------	------

**BOD<sub>5</sub>**

BOD <sub>5</sub>	5210B
------------------	-------

**Anions**

Chloride	300
----------	-----





500-139410 Waybill

ORIGIN ID:MSNA (608) 335-4198  
AMY BUSS

SHIP DATE: 08JAN18  
ACTWGT: 43.35 LB.  
CAD: 109993720/INET3920

TRC ENVIRONMENTAL CORPORATION  
708 HEARTLAND TRAIL, SUITE 3000  
MADISON, WI 53717  
UNITED STATES US

BILL SENDER

Part #: 156148-3271490456/14208

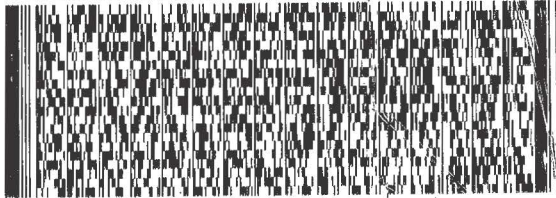
TO **SAMPLE RECEIVING  
TESTAMERICA  
2417 BOND ST  
CHICAGO DIVISION  
UNIVERSITY PARK IL 60484**

(708) 584-5200

REF: 292257.0000.0000

INU:

DEPT:



**FedEx**  
Express



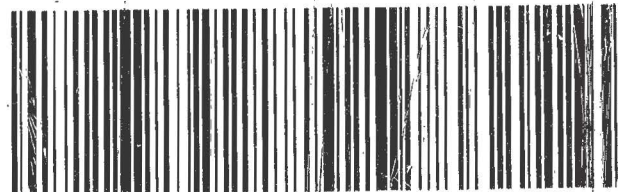
J172117081301UP

TRK# 7711 6666 3113  
0201

**79 JOTA**

**TUE - 09 JAN 10:30A  
PRIORITY OVERNIGHT**

**ASR  
60484  
IL-US ORD**



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**COOLER RECEIPT FORM**

Cooler Received/Opened On 1/10/2018 @ 0915

Time Samples Removed From Cooler \_\_\_\_\_ Time Samples Placed In Storage \_\_\_\_\_ (2 Hour Window)

1. Tracking # 0494 (last 4 digits, FedEx) Courier: FedEx  
 IR Gun ID 17960358 pH Strip Lot \_\_\_\_\_ Chlorine Strip Lot \_\_\_\_\_

2. Temperature of rep. sample or temp blank when opened: 1.0 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? 1 (Front) 1 (Back) YES...NO...NA  
 If yes, how many and where: \_\_\_\_\_

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) J.J.

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) ES

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) ES

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) ES

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

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



**TestAmerica Chicago**

2417 Bond Street  
University Park, IL 60484  
Phone (708) 534-5200 Fax (708) 534-5211

**Chain of Custody Record**



**500-139410**

<b>Client Information (Sub Contract Lab)</b>			Sampler: Lab PM: Fredrick, Sandie J		14.1																																																																																																																																																																																																																																																																										
Client Contact: Shipping/Receiving			Phone: sandie.fredrick@testamericainc.com		Wisconsin																																																																																																																																																																																																																																																																										
Company: TestAmerica Laboratories, Inc			Accreditations Required (See note): State Program - Wisconsin		Page 1 of 1																																																																																																																																																																																																																																																																										
Address: 2960 Foster Creighton Drive, City: Nashville State, Zip: TN, 37204			Due Date Requested: 1/11/2018		Job #: 500-139410-1																																																																																																																																																																																																																																																																										
Phone: 615-726-0177(Tel) 615-726-3404(Fax)			TAT Requested (days):		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="2">Analysis Requested</th> <th rowspan="4">Total Number of Containers</th> </tr> <tr> <td style="width: 10px;"></td><td style="width: 10px;"></td><td rowspan="4">A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA</td> </tr> <tr> <td style="width: 10px;"></td><td style="width: 10px;"></td></tr> <tr> <td style="width: 10px;"></td><td style="width: 10px;"></td></tr> <tr> <td style="width: 10px;"></td><td style="width: 10px;"></td></tr> <tr> <td colspan="3">Email:</td> <td colspan="2">PO #:</td> <td colspan="2">                     M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)                 </td> </tr> <tr> <td colspan="3">Project Name: MadisonKipp - GETS 292257</td> <td colspan="2">WO #:</td> <td colspan="2">Other:</td> </tr> <tr> <td colspan="3">Site:</td> <td colspan="2">Project #: 50014136</td> <td colspan="2"></td> </tr> <tr> <td colspan="3"></td> <td colspan="2">SSOW#:</td> <td colspan="2"></td> </tr> <tr> <th rowspan="2">Sample Identification - Client ID (Lab ID)</th> <th rowspan="2">Sample Date</th> <th rowspan="2">Sample Time</th> <th rowspan="2">Sample Type (C=comp, G=grab)</th> <th rowspan="2">Matrix (W=water, S=solid, O=waste/cil, BT=Tissue, An=Air)</th> <th rowspan="2">Field Filtered Sample (Yes or No) Perform: NIS/MSD (Yes or No) 625_SII/625_Prep (MOD) Single compound</th> <th colspan="10"></th> <th rowspan="2">Special Instructions/Note:</th> </tr> <tr> <th colspan="10">Preservation Code:</th> </tr> <tr> <td>Effluent (500-139410-1)</td> <td>1/8/18</td> <td>12:45 Central</td> <td></td> <td>Water</td> <td>X</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td> </tr> <tr> <td>Influent (500-139410-2)</td> <td>1/8/18</td> <td>12:55 Central</td> <td></td> <td>Water</td> <td>X</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td> </tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td> </td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>		Analysis Requested		Total Number of Containers			A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA							Email:			PO #:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		Project Name: MadisonKipp - GETS 292257			WO #:		Other:		Site:			Project #: 50014136							SSOW#:				Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/cil, BT=Tissue, An=Air)	Field Filtered Sample (Yes or No) Perform: NIS/MSD (Yes or No) 625_SII/625_Prep (MOD) Single compound											Special Instructions/Note:	Preservation Code:										Effluent (500-139410-1)	1/8/18	12:45 Central		Water	X												2	Influent (500-139410-2)	1/8/18	12:55 Central		Water	X												2																																																																																																																																																																		
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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.

<b>Possible Hazard Identification</b>		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>	
Unconfirmed		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Primary Deliverable Rank: 2			

Empty Kit Relinquished by:			Date:	Time:	Method of Shipment:		
Relinquished by:			Date/Time: 01/09/18 1600	Company: TA	Received by:		
Relinquished by:			Date/Time:	Company:	Date/Time: 1-10-18 9:15		
Relinquished by:			Date/Time:	Company:	Date/Time:		
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 150			



## Login Sample Receipt Checklist

Client: TRC Environmental Corporation.

Job Number: 500-139410-1

**Login Number: 139410**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: Kelsey, Shawn 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	5.8c
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 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

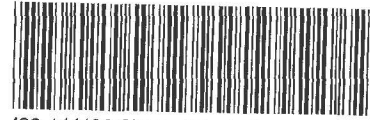
## Laboratory: TestAmerica Chicago

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

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## 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 #		Date		Time		# of Containers		Matrix		
MUC GETS MONITORING				01/03/18		1330		2		W		
Project Location/State		Lab Project #		Date		Time		# of Containers		Matrix		
Madison / WI				01/03/18		13:20		2		W		
Sampler		Lab PM		Date		Time		# of Containers		Matrix		
A. STEHN												
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Comments					
		INFLUENT	01/03/18	1330	2	W	X					
		EFFLUENT	01/03/18	13:20	2	W	X					

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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)

Requested Due Date \_\_\_\_\_

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>	Lab Courier _____
Relinquished By _____	Company _____	Date _____	Time _____	Received By _____	Company _____	Date _____	Time _____	Shipped <u>FED EX</u>
Relinquished By _____	Company _____	Date _____	Time _____	Received By _____	Company _____	Date _____	Time _____	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.



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**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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# 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: 490-144810-1  
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:  
1/23/2018 10:15:37 AM

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: 490-144810-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-144810-1	Effluent	Water	01/16/18 11:45	01/17/18 11:15
490-144810-2	Influent	Water	01/16/18 12:00	01/17/18 11:15

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# Case Narrative

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

TestAmerica Job ID: 490-144810-1

**Job ID: 490-144810-1**

**Laboratory: TestAmerica Nashville**

## Narrative

**Job Narrative  
490-144810-1**

## Comments

No additional comments.

## Receipt

The samples were received on 1/17/2018 11:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.4° C.

## GC/MS Semi VOA

Method(s) 625 SIM: The method blank for preparation batch 490-490281 and analytical batch 490-490324 contained Dibenz(a,h)anthracene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 625 SIM: Surrogate recovery for the following sample was outside control limits: Effluent (490-144810-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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: 490-144810-1

## 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: 490-144810-1

**Client Sample ID: Effluent**

**Date Collected: 01/16/18 11:45**

**Date Received: 01/17/18 11:15**

**Lab Sample ID: 490-144810-1**

**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	<0.023		0.046	0.023	ug/L		01/20/18 09:10	01/20/18 18:14	1
Benzo[a]pyrene	<0.023		0.046	0.023	ug/L		01/20/18 09:10	01/20/18 18:14	1
Benzo[b]fluoranthene	<0.023		0.046	0.023	ug/L		01/20/18 09:10	01/20/18 18:14	1
Benzo[g,h,i]perylene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 18:14	1
Benzo[k]fluoranthene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 18:14	1
Chrysene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 18:14	1
Dibenz(a,h)anthracene	<0.023		0.046	0.023	ug/L		01/20/18 09:10	01/20/18 18:14	1
Fluoranthene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 18:14	1
Indeno[1,2,3-cd]pyrene	<0.023		0.046	0.023	ug/L		01/20/18 09:10	01/20/18 18:14	1
Naphthalene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 18:14	1
Phenanthrene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 18:14	1
Pyrene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 18:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	52		27 - 120				01/20/18 09:10	01/20/18 18:14	1
Terphenyl-d14	77		13 - 120				01/20/18 09:10	01/20/18 18:14	1
2-Fluorobiphenyl (Surr)	49		10 - 120				01/20/18 09:10	01/20/18 18:14	1

# Client Sample Results

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

TestAmerica Job ID: 490-144810-1

**Client Sample ID: Influent**

**Date Collected: 01/16/18 12:00**

**Date Received: 01/17/18 11:15**

**Lab Sample ID: 490-144810-2**

**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	<0.023		0.046	0.023	ug/L		01/20/18 09:10	01/20/18 19:15	1
Benzo[a]pyrene	<0.023		0.046	0.023	ug/L		01/20/18 09:10	01/20/18 19:15	1
Benzo[b]fluoranthene	<0.023		0.046	0.023	ug/L		01/20/18 09:10	01/20/18 19:15	1
Benzo[g,h,i]perylene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 19:15	1
Benzo[k]fluoranthene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 19:15	1
Chrysene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 19:15	1
Dibenz(a,h)anthracene	<0.023		0.046	0.023	ug/L		01/20/18 09:10	01/20/18 19:15	1
Fluoranthene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 19:15	1
Indeno[1,2,3-cd]pyrene	<0.023		0.046	0.023	ug/L		01/20/18 09:10	01/20/18 19:15	1
Naphthalene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 19:15	1
Phenanthrene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 19:15	1
Pyrene	<0.046		0.093	0.046	ug/L		01/20/18 09:10	01/20/18 19:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	69		27 - 120				01/20/18 09:10	01/20/18 19:15	1
Terphenyl-d14	78		13 - 120				01/20/18 09:10	01/20/18 19:15	1
2-Fluorobiphenyl (Surr)	60		10 - 120				01/20/18 09:10	01/20/18 19:15	1

# QC Sample Results

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

TestAmerica Job ID: 490-144810-1

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

**Lab Sample ID: MB 490-490281/1-A**

**Matrix: Water**

**Analysis Batch: 490324**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 490281**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.025		0.050	0.025	ug/L		01/20/18 09:10	01/20/18 17:13	1
Benzo[a]pyrene	<0.025		0.050	0.025	ug/L		01/20/18 09:10	01/20/18 17:13	1
Benzo[b]fluoranthene	<0.025		0.050	0.025	ug/L		01/20/18 09:10	01/20/18 17:13	1
Benzo[g,h,i]perylene	<0.050		0.10	0.050	ug/L		01/20/18 09:10	01/20/18 17:13	1
Benzo[k]fluoranthene	<0.050		0.10	0.050	ug/L		01/20/18 09:10	01/20/18 17:13	1
Chrysene	<0.050		0.10	0.050	ug/L		01/20/18 09:10	01/20/18 17:13	1
Dibenz(a,h)anthracene	0.0379	J	0.050	0.025	ug/L		01/20/18 09:10	01/20/18 17:13	1
Fluoranthene	<0.050		0.10	0.050	ug/L		01/20/18 09:10	01/20/18 17:13	1
Indeno[1,2,3-cd]pyrene	<0.025		0.050	0.025	ug/L		01/20/18 09:10	01/20/18 17:13	1
Naphthalene	<0.050		0.10	0.050	ug/L		01/20/18 09:10	01/20/18 17:13	1
Phenanthrene	<0.050		0.10	0.050	ug/L		01/20/18 09:10	01/20/18 17:13	1
Pyrene	<0.050		0.10	0.050	ug/L		01/20/18 09:10	01/20/18 17:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	57		27 - 120	01/20/18 09:10	01/20/18 17:13	1
Terphenyl-d14	74		13 - 120	01/20/18 09:10	01/20/18 17:13	1
2-Fluorobiphenyl (Surr)	54		10 - 120	01/20/18 09:10	01/20/18 17:13	1

**Lab Sample ID: LCS 490-490281/2-A**

**Matrix: Water**

**Analysis Batch: 490324**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 490281**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	8.00	6.76		ug/L		85	33 - 143
Benzo[a]pyrene	8.00	5.92		ug/L		74	17 - 163
Benzo[b]fluoranthene	8.00	6.74		ug/L		84	24 - 159
Benzo[g,h,i]perylene	8.00	4.40		ug/L		55	10 - 219
Benzo[k]fluoranthene	8.00	5.90		ug/L		74	11 - 162
Chrysene	8.00	8.60		ug/L		107	17 - 168
Dibenz(a,h)anthracene	8.00	3.54		ug/L		44	10 - 227
Fluoranthene	8.00	6.73		ug/L		84	26 - 137
Indeno[1,2,3-cd]pyrene	8.00	4.15		ug/L		52	10 - 171
Naphthalene	8.00	4.61		ug/L		58	21 - 133
Phenanthrene	8.00	6.71		ug/L		84	54 - 120
Pyrene	8.00	7.51		ug/L		94	52 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	54		27 - 120
Terphenyl-d14	78		13 - 120
2-Fluorobiphenyl (Surr)	73		10 - 120

**Lab Sample ID: 490-144810-1 MS**

**Matrix: Water**

**Analysis Batch: 490324**

**Client Sample ID: Effluent**

**Prep Type: Total/NA**

**Prep Batch: 490281**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	<0.023		7.41	6.91		ug/L		93	33 - 143

TestAmerica Nashville



# QC Sample Results

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

TestAmerica Job ID: 490-144810-1

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

**Lab Sample ID: 490-144810-1 MS**

**Matrix: Water**

**Analysis Batch: 490324**

**Client Sample ID: Effluent**

**Prep Type: Total/NA**

**Prep Batch: 490281**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Benzo[a]pyrene	<0.023		7.41	6.33		ug/L		85		17 - 163
Benzo[b]fluoranthene	<0.023		7.41	7.38		ug/L		100		24 - 159
Benzo[g,h,i]perylene	<0.046		7.41	6.47		ug/L		87		10 - 219
Benzo[k]fluoranthene	<0.046		7.41	6.19		ug/L		84		11 - 162
Chrysene	<0.046		7.41	7.96		ug/L		107		17 - 168
Dibenz(a,h)anthracene	<0.023		7.41	6.16		ug/L		83		10 - 227
Fluoranthene	<0.046		7.41	6.34		ug/L		86		26 - 137
Indeno[1,2,3-cd]pyrene	<0.023		7.41	6.43		ug/L		87		10 - 171
Naphthalene	<0.046		7.41	4.52		ug/L		61		21 - 133
Phenanthrene	<0.046		7.41	6.14		ug/L		83		54 - 120
Pyrene	<0.046		7.41	7.05		ug/L		95		52 - 115

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	56		27 - 120
Terphenyl-d14	80		13 - 120
2-Fluorobiphenyl (Surr)	72		10 - 120

**Lab Sample ID: 490-144810-1 MSD**

**Matrix: Water**

**Analysis Batch: 490324**

**Client Sample ID: Effluent**

**Prep Type: Total/NA**

**Prep Batch: 490281**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Benzo[a]anthracene	<0.023		7.41	6.67		ug/L		90		33 - 143	4	50
Benzo[a]pyrene	<0.023		7.41	6.27		ug/L		85		17 - 163	1	50
Benzo[b]fluoranthene	<0.023		7.41	7.31		ug/L		99		24 - 159	1	50
Benzo[g,h,i]perylene	<0.046		7.41	6.51		ug/L		88		10 - 219	1	50
Benzo[k]fluoranthene	<0.046		7.41	6.17		ug/L		83		11 - 162	0	50
Chrysene	<0.046		7.41	8.09		ug/L		109		17 - 168	2	50
Dibenz(a,h)anthracene	<0.023		7.41	6.28		ug/L		85		10 - 227	2	50
Fluoranthene	<0.046		7.41	6.44		ug/L		87		26 - 137	2	50
Indeno[1,2,3-cd]pyrene	<0.023		7.41	6.58		ug/L		89		10 - 171	2	50
Naphthalene	<0.046		7.41	4.38		ug/L		59		21 - 133	3	50
Phenanthrene	<0.046		7.41	6.11		ug/L		82		54 - 120	0	50
Pyrene	<0.046		7.41	6.96		ug/L		94		52 - 115	1	50

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	53		27 - 120
Terphenyl-d14	83		13 - 120
2-Fluorobiphenyl (Surr)	77		10 - 120

TestAmerica Nashville

# QC Association Summary

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

TestAmerica Job ID: 490-144810-1

## GC/MS Semi VOA

### Prep Batch: 490281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-144810-1	Effluent	Total/NA	Water	625	
490-144810-2	Influent	Total/NA	Water	625	
MB 490-490281/1-A	Method Blank	Total/NA	Water	625	
LCS 490-490281/2-A	Lab Control Sample	Total/NA	Water	625	
490-144810-1 MS	Effluent	Total/NA	Water	625	
490-144810-1 MSD	Effluent	Total/NA	Water	625	

### Analysis Batch: 490324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-144810-1	Effluent	Total/NA	Water	625 SIM	490281
490-144810-2	Influent	Total/NA	Water	625 SIM	490281
MB 490-490281/1-A	Method Blank	Total/NA	Water	625 SIM	490281
LCS 490-490281/2-A	Lab Control Sample	Total/NA	Water	625 SIM	490281
490-144810-1 MS	Effluent	Total/NA	Water	625 SIM	490281
490-144810-1 MSD	Effluent	Total/NA	Water	625 SIM	490281

# Lab Chronicle

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

TestAmerica Job ID: 490-144810-1

## Client Sample ID: Effluent

Date Collected: 01/16/18 11:45

Date Received: 01/17/18 11:15

Lab Sample ID: 490-144810-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			270 mL	1 mL	490281	01/20/18 09:10	JKG	TAL NSH
Total/NA	Analysis	625 SIM		1			490324	01/20/18 18:14	T1C	TAL NSH

## Client Sample ID: Influent

Date Collected: 01/16/18 12:00

Date Received: 01/17/18 11:15

Lab Sample ID: 490-144810-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			270 mL	1 mL	490281	01/20/18 09:10	JKG	TAL NSH
Total/NA	Analysis	625 SIM		1			490324	01/20/18 19:15	T1C	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: 490-144810-1

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: 490-144810-1

## 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

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## COOLER RECEIPT FORM



490-144810 Chain of Custody

Cooler Received/Opened On 1/17/2018 @ 1115 08:13 KD 01-19-2018  
Time Samples Removed From Cooler 19:23 Time Samples Placed In Storage 08:18 (2 Hour Window)

1. Tracking # 8626 (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: 0.4 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: 1 Front 1 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) ADH

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



Larger than this.

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) 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)	Bill To (optional)
Contact: <u>Andrew Stehn</u>	Contact: _____
Company: <u>TRC</u>	Company: <u>Same as reporting</u>
Address: <u>708 Heartland Trail Suite 300</u>	Address: _____
Address: <u>Madison, WI 53717</u>	Address: _____
Phone: <u>(608) 826-3665</u>	Phone: _____
Fax: _____	Fax: _____
E-Mail: <u>astehn@trcsolutions.com</u>	PO#/Reference#: <u>117375</u>

## 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		Preservative Key	
<u>MKC/TRC</u>		<u>292257</u>		<u>8</u>		<u>PAHS</u>		<u>144810</u>		<ol style="list-style-type: none"> <li>HCL, Cool to 4°</li> <li>H2SO4, Cool to 4°</li> <li>HNO3, Cool to 4°</li> <li>NaOH, Cool to 4°</li> <li>NaOH/Zn, Cool to 4°</li> <li>NaHSO4</li> <li>Cool to 4°</li> <li>None</li> <li>Other</li> </ol>	
Project Name		Project Location/State		Lab Project #		Sampler		Lab PM		Comments	
<u>GETS Monitoring</u>		<u>WI</u>		_____		<u>Ben Wachholz</u>		<u>Sandie Fredrick</u>		_____	
Lab ID	MS/MSD	Sample ID	Sampling		Date	Time	# of Containers	Matrix			
			Date	Time							
<u>X</u>		<u>Effluent</u>	<u>1/16/18</u>	<u>11:45</u>	<u>1/16/18</u>	<u>11:45</u>	<u>5</u>	<u>W</u>	<u>X</u>	_____	
		<u>INFLUENT</u>	<u>1/16/18</u>	<u>12:00</u>	<u>1/16/18</u>	<u>12:00</u>	<u>2</u>	<u>W</u>	<u>X</u>	_____	

Page 15 of 16

Turnaround Time Required (Business Days)  
 \_\_\_ 1 Day \_\_\_ 2 Days X 5 Days \_\_\_ 7 Days \_\_\_ 10 Days \_\_\_ 15 Days \_\_\_ Other

Requested Due Date: \_\_\_\_\_

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>Ben Wachholz</u>	Company: <u>TRC</u>	Date: <u>1/16/18</u>	Time: <u>16:15</u>	Received By: <u>Keith Jensen</u>	Company: <u>TA-NAS</u>	Date: <u>01-17-2018</u>	Time: <u>11:15</u>	Lab Courier: _____
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____	Shipped: <u>FedEx</u>
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____	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 ADD'L SHEET

Lab Comments: 0.4

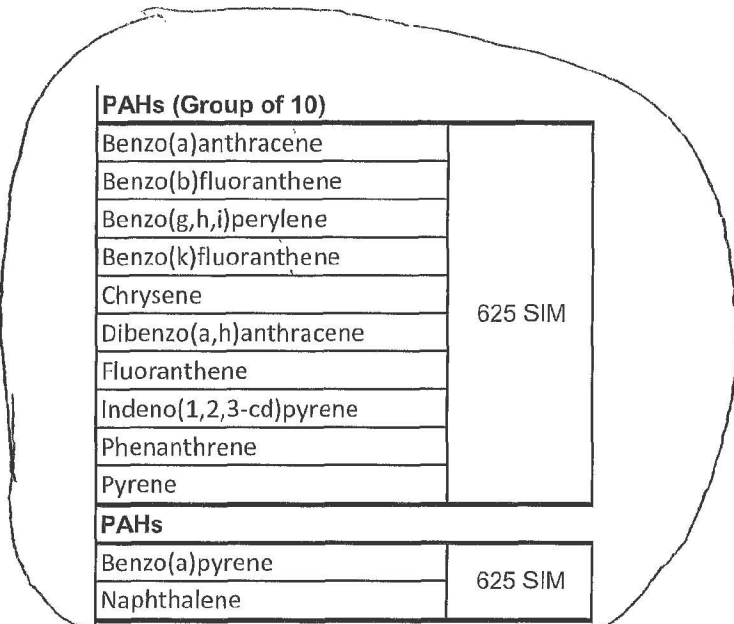
1/23/2018





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Loc: 490  
144810



<b>PAHs (Group of 10)</b>	
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	
<b>PAHs</b>	
Benzo(a)pyrene	625 SIM
Naphthalene	
<b>Oil and Grease</b>	
Oil and Grease	1664
<b>BOD<sub>5</sub></b>	
BOD <sub>5</sub>	5210B
<b>Anions</b>	
Chloride	300



# 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: 490-145228-1  
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:  
1/30/2018 1:18:13 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: 490-145228-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-145228-1	Effluent	Water	01/23/18 14:00	01/24/18 09:30
490-145228-2	Influent	Water	01/23/18 14:05	01/24/18 09:30

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# Case Narrative

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

TestAmerica Job ID: 490-145228-1

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**Job ID: 490-145228-1**

---

**Laboratory: TestAmerica Nashville**

---

**Narrative**

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**Job Narrative  
490-145228-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 1/24/2018 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2° C.

**GC/MS Semi VOA**

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.



## Definitions/Glossary

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

TestAmerica Job ID: 490-145228-1

### 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: 490-145228-1

**Client Sample ID: Effluent**

**Date Collected: 01/23/18 14:00**

**Date Received: 01/24/18 09:30**

**Lab Sample ID: 490-145228-1**

**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	<0.024		0.048	0.024	ug/L		01/27/18 15:29	01/29/18 12:19	1
Benzo[a]pyrene	<0.024		0.048	0.024	ug/L		01/27/18 15:29	01/29/18 12:19	1
Benzo[b]fluoranthene	<0.024		0.048	0.024	ug/L		01/27/18 15:29	01/29/18 12:19	1
Benzo[g,h,i]perylene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 12:19	1
Benzo[k]fluoranthene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 12:19	1
Chrysene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 12:19	1
Dibenz(a,h)anthracene	<0.024		0.048	0.024	ug/L		01/27/18 15:29	01/29/18 12:19	1
Fluoranthene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 12:19	1
Indeno[1,2,3-cd]pyrene	<0.024		0.048	0.024	ug/L		01/27/18 15:29	01/29/18 12:19	1
Naphthalene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 12:19	1
Phenanthrene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 12:19	1
Pyrene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 12:19	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Nitrobenzene-d5	62		27 - 120				01/27/18 15:29	01/29/18 12:19	1
Terphenyl-d14	83		13 - 120				01/27/18 15:29	01/29/18 12:19	1
2-Fluorobiphenyl (Surr)	55		10 - 120				01/27/18 15:29	01/29/18 12:19	1

# Client Sample Results

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

TestAmerica Job ID: 490-145228-1

**Client Sample ID: Influent**

**Date Collected: 01/23/18 14:05**

**Date Received: 01/24/18 09:30**

**Lab Sample ID: 490-145228-2**

**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	<0.024		0.048	0.024	ug/L		01/27/18 15:29	01/29/18 15:04	1
Benzo[a]pyrene	<0.024		0.048	0.024	ug/L		01/27/18 15:29	01/29/18 15:04	1
Benzo[b]fluoranthene	<0.024		0.048	0.024	ug/L		01/27/18 15:29	01/29/18 15:04	1
Benzo[g,h,i]perylene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 15:04	1
Benzo[k]fluoranthene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 15:04	1
Chrysene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 15:04	1
Dibenz(a,h)anthracene	<0.024		0.048	0.024	ug/L		01/27/18 15:29	01/29/18 15:04	1
Fluoranthene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 15:04	1
Indeno[1,2,3-cd]pyrene	<0.024		0.048	0.024	ug/L		01/27/18 15:29	01/29/18 15:04	1
Naphthalene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 15:04	1
Phenanthrene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 15:04	1
Pyrene	<0.048		0.096	0.048	ug/L		01/27/18 15:29	01/29/18 15:04	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Nitrobenzene-d5	37		27 - 120				01/27/18 15:29	01/29/18 15:04	1
Terphenyl-d14	71		13 - 120				01/27/18 15:29	01/29/18 15:04	1
2-Fluorobiphenyl (Surr)	42		10 - 120				01/27/18 15:29	01/29/18 15:04	1

# QC Sample Results

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

TestAmerica Job ID: 490-145228-1

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

**Lab Sample ID: MB 490-491772/1-A**  
**Matrix: Water**  
**Analysis Batch: 491915**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 491772**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.025		0.050	0.025	ug/L		01/27/18 15:29	01/29/18 11:39	1
Benzo[a]pyrene	<0.025		0.050	0.025	ug/L		01/27/18 15:29	01/29/18 11:39	1
Benzo[b]fluoranthene	<0.025		0.050	0.025	ug/L		01/27/18 15:29	01/29/18 11:39	1
Benzo[g,h,i]perylene	<0.050		0.10	0.050	ug/L		01/27/18 15:29	01/29/18 11:39	1
Benzo[k]fluoranthene	<0.050		0.10	0.050	ug/L		01/27/18 15:29	01/29/18 11:39	1
Chrysene	<0.050		0.10	0.050	ug/L		01/27/18 15:29	01/29/18 11:39	1
Dibenz(a,h)anthracene	<0.025		0.050	0.025	ug/L		01/27/18 15:29	01/29/18 11:39	1
Fluoranthene	<0.050		0.10	0.050	ug/L		01/27/18 15:29	01/29/18 11:39	1
Indeno[1,2,3-cd]pyrene	<0.025		0.050	0.025	ug/L		01/27/18 15:29	01/29/18 11:39	1
Naphthalene	<0.050		0.10	0.050	ug/L		01/27/18 15:29	01/29/18 11:39	1
Phenanthrene	<0.050		0.10	0.050	ug/L		01/27/18 15:29	01/29/18 11:39	1
Pyrene	<0.050		0.10	0.050	ug/L		01/27/18 15:29	01/29/18 11:39	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	66		27 - 120	01/27/18 15:29	01/29/18 11:39	1
Terphenyl-d14	75		13 - 120	01/27/18 15:29	01/29/18 11:39	1
2-Fluorobiphenyl (Surr)	54		10 - 120	01/27/18 15:29	01/29/18 11:39	1

**Lab Sample ID: LCS 490-491772/2-A**  
**Matrix: Water**  
**Analysis Batch: 491915**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 491772**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	40.0	40.6		ug/L		101	33 - 143
Benzo[a]pyrene	40.0	37.3		ug/L		93	17 - 163
Benzo[b]fluoranthene	40.0	42.2		ug/L		106	24 - 159
Benzo[g,h,i]perylene	40.0	41.3		ug/L		103	10 - 219
Benzo[k]fluoranthene	40.0	39.1		ug/L		98	11 - 162
Chrysene	40.0	41.8		ug/L		104	17 - 168
Dibenz(a,h)anthracene	40.0	41.1		ug/L		103	10 - 227
Fluoranthene	40.0	38.0		ug/L		95	26 - 137
Indeno[1,2,3-cd]pyrene	40.0	41.4		ug/L		104	10 - 171
Naphthalene	40.0	34.3		ug/L		86	21 - 133
Phenanthrene	40.0	38.2		ug/L		96	54 - 120
Pyrene	40.0	42.4		ug/L		106	52 - 115

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	89		27 - 120
Terphenyl-d14	79		13 - 120
2-Fluorobiphenyl (Surr)	48		10 - 120

**Lab Sample ID: 490-145228-1 MS**  
**Matrix: Water**  
**Analysis Batch: 491915**

**Client Sample ID: Effluent**  
**Prep Type: Total/NA**  
**Prep Batch: 491772**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	<0.024		38.5	31.4		ug/L		82	33 - 143

TestAmerica Nashville



# QC Sample Results

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

TestAmerica Job ID: 490-145228-1

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

**Lab Sample ID: 490-145228-1 MS**

**Matrix: Water**

**Analysis Batch: 491915**

**Client Sample ID: Effluent**

**Prep Type: Total/NA**

**Prep Batch: 491772**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier					
Benzo[a]pyrene	<0.024		38.5	27.7		ug/L		72		17 - 163
Benzo[b]fluoranthene	<0.024		38.5	34.0		ug/L		88		24 - 159
Benzo[g,h,i]perylene	<0.048		38.5	32.1		ug/L		84		10 - 219
Benzo[k]fluoranthene	<0.048		38.5	27.3		ug/L		71		11 - 162
Chrysene	<0.048		38.5	32.5		ug/L		84		17 - 168
Dibenz(a,h)anthracene	<0.024		38.5	32.0		ug/L		83		10 - 227
Fluoranthene	<0.048		38.5	29.2		ug/L		76		26 - 137
Indeno[1,2,3-cd]pyrene	<0.024		38.5	31.9		ug/L		83		10 - 171
Naphthalene	<0.048		38.5	22.1		ug/L		57		21 - 133
Phenanthrene	<0.048		38.5	28.6		ug/L		74		54 - 120
Pyrene	<0.048		38.5	32.9		ug/L		86		52 - 115

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	39		27 - 120
Terphenyl-d14	68		13 - 120
2-Fluorobiphenyl (Surr)	52		10 - 120

**Lab Sample ID: 490-145228-1 MSD**

**Matrix: Water**

**Analysis Batch: 491915**

**Client Sample ID: Effluent**

**Prep Type: Total/NA**

**Prep Batch: 491772**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier							
Benzo[a]anthracene	<0.024		38.5	34.1		ug/L		89		33 - 143	8	50
Benzo[a]pyrene	<0.024		38.5	30.9		ug/L		80		17 - 163	11	50
Benzo[b]fluoranthene	<0.024		38.5	35.0		ug/L		91		24 - 159	3	50
Benzo[g,h,i]perylene	<0.048		38.5	34.0		ug/L		88		10 - 219	6	50
Benzo[k]fluoranthene	<0.048		38.5	32.9		ug/L		86		11 - 162	19	50
Chrysene	<0.048		38.5	35.3		ug/L		92		17 - 168	8	50
Dibenz(a,h)anthracene	<0.024		38.5	34.1		ug/L		89		10 - 227	7	50
Fluoranthene	<0.048		38.5	31.7		ug/L		82		26 - 137	8	50
Indeno[1,2,3-cd]pyrene	<0.024		38.5	34.4		ug/L		90		10 - 171	8	50
Naphthalene	<0.048		38.5	26.8		ug/L		70		21 - 133	19	50
Phenanthrene	<0.048		38.5	30.9		ug/L		80		54 - 120	8	50
Pyrene	<0.048		38.5	36.1		ug/L		94		52 - 115	9	50

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	71		27 - 120
Terphenyl-d14	72		13 - 120
2-Fluorobiphenyl (Surr)	39		10 - 120

TestAmerica Nashville

# QC Association Summary

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

TestAmerica Job ID: 490-145228-1

## GC/MS Semi VOA

### Prep Batch: 491772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-145228-1	Effluent	Total/NA	Water	625	
490-145228-2	Influent	Total/NA	Water	625	
MB 490-491772/1-A	Method Blank	Total/NA	Water	625	
LCS 490-491772/2-A	Lab Control Sample	Total/NA	Water	625	
490-145228-1 MS	Effluent	Total/NA	Water	625	
490-145228-1 MSD	Effluent	Total/NA	Water	625	

### Analysis Batch: 491915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-145228-1	Effluent	Total/NA	Water	625 SIM	491772
490-145228-2	Influent	Total/NA	Water	625 SIM	491772
MB 490-491772/1-A	Method Blank	Total/NA	Water	625 SIM	491772
LCS 490-491772/2-A	Lab Control Sample	Total/NA	Water	625 SIM	491772
490-145228-1 MS	Effluent	Total/NA	Water	625 SIM	491772
490-145228-1 MSD	Effluent	Total/NA	Water	625 SIM	491772

# Lab Chronicle

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

TestAmerica Job ID: 490-145228-1

## Client Sample ID: Effluent

Date Collected: 01/23/18 14:00

Date Received: 01/24/18 09:30

Lab Sample ID: 490-145228-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			260 mL	1 mL	491772	01/27/18 15:29	SCR	TAL NSH
Total/NA	Analysis	625 SIM		1			491915	01/29/18 12:19	T1C	TAL NSH

## Client Sample ID: Influent

Date Collected: 01/23/18 14:05

Date Received: 01/24/18 09:30

Lab Sample ID: 490-145228-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			260 mL	1 mL	491772	01/27/18 15:29	SCR	TAL NSH
Total/NA	Analysis	625 SIM		1			491915	01/29/18 15:04	T1C	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: 490-145228-1

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: 490-145228-1

## 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

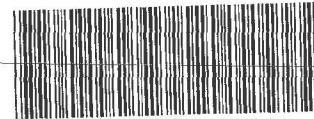
## Laboratory: TestAmerica Chicago

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

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## COOLER RECEIPT FORM



490-145228 Chain of Custody

Cooler Received/Opened On 1/24/2018 @0930

Time Samples Removed From Cooler 1726 Time Samples Placed In Storage 1749 (2 Hour Window)

1. Tracking # 1392 (last 4 digits, FedEx) Courier: FedEx  
IR Gun ID 17960353 pH Strip Lot NA Chlorine Strip Lot NA

2. Temperature of rep. sample or temp blank when opened: 4.2 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...NO...NA

If yes, how many and where: 1 front

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

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

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

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...NO...NA

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

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

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

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



Larger than this.

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) HKG

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) HKG

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

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

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

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

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

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

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

<b>PAHs (Group of 10)</b>	
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	
<b>PAHs</b>	
Benzo(a)pyrene	625 SIM
Naphthalene	
<b>Oil and Grease</b>	
Oil and Grease	1664
<b>BOD<sub>5</sub></b>	
BOD <sub>5</sub>	5210B
<b>Anions</b>	
Chloride	300

Loc: 490  
**145228**

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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: Andrew Stehn  
 Company: TRC  
 Address: 708 Heartland Trail Suite 3000  
 Address: Madison, WI 53717  
 Phone: (608) 826-3665  
 Fax:  
 E-Mail: astehn@trcsolutions.com

Bill To (optional)  
 Contact: Same  
 Company: Same  
 Address: as reporting  
 Address:  
 Phone:  
 Fax:  
 PO#/Reference# 117375

## Chain of Custody Record

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

1/30/2018

Client		Client Project #		Preservative		Parameter		Sampler		Lab PM		Loc: 490 145228	Preservative Key 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
MKC/TRC		292257		8		PAHS		Ben Wachholz		Sandie Fredrick			
Project Name		Project Location/State		Sampling		# of Containers	Matrix	Sample ID					
GETS Monitoring		WI		Date	Time			Date	Time				
Lab ID	MS/MSD												
X		Effluent		1/23/18	14:00	5	W	X					
		Influent		1/23/18	14:05	2	W	X					

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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>Ben Wachholz</u>	Company <u>TRC</u>	Date <u>1/23/2018</u>	Time <u>16:45</u>	Received By <u>J. H. U. 2 TA-NAS</u>	Company <u>TA-NAS</u>	Date <u>1/24/18</u>	Time <u>0930</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier: \_\_\_\_\_  
 Shipped: FedEx  
 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 additional sheet

Lab Comments: