

201 Waubesa Street Madison, WI 53704-5728

October 3, 2016

James Brodzeller
Wastewater Specialist
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. Brodzeller,

The Groundwater Extraction and Treatment System (GETS) ran for the month of September, with the exception of maintenance activities. This letter summarizes the activities completed in September 2016 as part of the GETS at the Madison Kipp Corporation (MKC) site under the Wisconsin Pollution Discharge Elimination System (WPDES) Permit WI-0046566-6. Compliance samples were collected on September 9, 2016 per the WPDES permit, including visual monitoring for sodium permanganate neutralization. The compliance sample results were below the WPDES discharge limits. The Discharge Monitoring Report is included as Attachment A and laboratory reports are included as Attachment B.

During the month of September, the GETS was shut down to finalize program updates relating to the effluent flow meter. If you have any questions or need additional information, please contact me at asatkoski@madison-kipp.com or (608) 242-5200.

Alina Satkoski

alinalatherk:

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)

#### DISCHARGE MONITORING REPORT FORM

Outfall # and Description

Contaminated Groundwater from Remedial Action Operations - Surface Water Discharge

Oil & Grease

BOD<sub>5</sub>

**Permit No. WI-0046566-6** Rev. December 16, 2013

Flow

**Facility Name and Location** 

Potassium

TSS

Benzene

Madison Kipp Corporation 201 Waubesa St

Madison, WI 53704

Consultant Managing Project: TRC

Naphthalene

FIN#:

Benzo(a)

	•	(gal/day)	(mg/L)	(mg/L)	(μg/L)	10 (μg/L)	pyrene (μg/L)	(μg/L)	Permanganate (mg/L)	(µg/L)	(mg/L)
Effluent	Month: September 9, 2016	64,800	<1.4	<2.0	<0.40	<0.048	<0.024	<0.048	Absent	<0.15	4.0
	Month:										
	Month:										
	Month:										
See Footn	otes	(4)			(1)	(2)			(3)		(6)
Effluent L sec. 4 of th	imits (refer to ne permit)		10 mg/l	20 mg/I	Z 750 μg/L	0.1 μg/l	0.1 μg/l	70 μg/l		50 μg/l	40 mg/L
Sample Fr Pre-treatm		Daily	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly
Sample Fr Post-treatr		Daily	Monthly	Monthly	/ Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly
Sample Ty	уре	Estimate	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab
Impaired of surface wa		Does to	his facility disch	arge a pollutant	of concern to an ir	mpaired surface water or to	o a surface water wi	ith a TMDL allocati	ion? □ No • Y	es	
Outfall # a	and Description	VOCs (μg/L)	Vinyl Chloride (µg/L)	trans-1,2-Dic hloroethene (µg/L)	1,1-Dichloroe thene (μg/L)	Tetrachloroethene (μg/L)	Chloride (mg/L)	cis-1,2-Dichl oroethene (µg/L)	Trichloroethene (μg/L)		
Effluent	Month:	67.2	< 0.20	< 0.35	< 0.39	39	110	19	9.2		
	September 9, 2016										
	Month:										
	Month:										
	Month:										
See Footn	otes	(4)		(4)				(4)			
Effluent L sec. 4 of the	imits (refer to ne permit)		10 ug/L		50 μg/L	50 μg/L	395 mg/L		50 μg/L		
Sample Fr Pre-treatm		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly		
Sample Fr Post-treatr		Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly		
Sample Ty	уре	Grab	Grab	Grab	Grab	Grab	Grab	Grab	Grab		

Year:

Total BETX

2016

PAHs group of

#### FOOTNOTES:

- (1) Total BETX 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/Arcadis/TRC will conduct visual monitoring for this compound.
- (4) No effluent limit is established, refer to section 4 of the permit.
- (5) Compound was found in the blank and in the sample.
- (6) Estimated value. Analyte detected at a level less than the reporting limit and greater than or equal to the detection limit.
- (7) Matrix Spike and/or Matrix Spike Duplicate Recovery is outside acceptance limits.

#### DIRECTIONS:

- For "Outfall # and Description" enter the number of the outfall you are reporting (001 or 002, etc.)
- Monitoring for a given parameter depends on if the discharge is to surface water or groundwater.
- The value entered must be the highest value of all samples analyzed for that day.
- Print additional DMRs as necessary for monthly reporting.

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.

AlinaSatkesk:	10-3-2016
Signature of Person Completing Form	Date
AlinaSatkesk:	10-3-2016
Signature of Principal Exec. or Authorized Agent	Date

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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: 500-116854-1

Client Project/Site: MadisonKipp - GETS/SVE

#### For:

Madison-Kipp Corporation 201 Waubesa Street Madison, Wisconsin 53704

Attn: Alina Satkoski

Sanda Jreduik

Authorized for release by: 9/14/2016 7:57:49 AM

Sandie Fredrick, Project Manager II (920)261-1660

sandie.fredrick@testamericainc.com

.....LINKS .....

Review your project results through

Total Access

**Have a Question?** 



**Visit us at:**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.

# **Table of Contents**

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	10
QC Association	11
Surrogate Summary	12
QC Sample Results	13
Chronicle	16
Certification Summary	17
Chain of Custody	18
Receipt Checklists	21

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#### **Case Narrative**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-1

Job ID: 500-116854-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-116854-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 9/10/2016 10:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

#### **Receipt Exceptions**

One or more containers for the following sample was received broken or leaking: Influent (500-116854-1). Sufficient sample remaining.

#### **GC/MS VOA**

Method(s) 624: The following sample was diluted to bring the concentration of target analytes within the calibration range: Influent (500-116854-1). Elevated reporting limits (RLs) are provided.

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

#### **General Chemistry**

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

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# **Detection Summary**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-1

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Lab Sample ID: 500-116854-1

Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
Tetrachloroethene - DL	1600	50	19	ug/L	50	624	Total/NA
Chloride	110	5.0	1.9	mg/L	25	300.0	Total/NA

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**Client Sample ID: Effluent** 

**Client Sample ID: Influent** 

Lab Sampl	le ID:	500-11	6854-2
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Analyte	Result Qualifier	RL	MDL	Unit	Dil Fac	D Method	Prep Type
cis-1,2-Dichloroethene	19	1.0	0.41	ug/L	1	624	Total/NA
Tetrachloroethene	39	1.0	0.37	ug/L	1	624	Total/NA
Trichloroethene	9.2	0.50	0.16	ug/L	1	624	Total/NA
Chloride	110	5.0	1.9	mg/L	25	300.0	Total/NA
Total Suspended Solids	4.0 J	5.0	2.5	mg/L	1	SM 2540D	Total/NA

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Client Sample ID: Trip Blank

Lab Sample ID: 500-116854-3

No Detections.

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# **Method Summary**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-1

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

#### **Protocol References:**

1664B = 1664B

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

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

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

#### **Laboratory References:**

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

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# **Sample Summary**

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

TestAmerica Job ID: 500-116854-1

Lab Sample ID	Client Sample ID	Matrix	Collected Received
500-116854-1	Influent	Water	09/09/16 13:00 09/10/16 10:45
500-116854-2	Effluent	Water	09/09/16 13:10 09/10/16 10:45
500-116854-3	Trip Blank	Water	09/09/16 00:00 09/10/16 10:45

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Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-1

Lab Sample ID: 500-116854-1

**Matrix: Water** 

Client Sample ID: Influent Date Collected: 09/09/16 13:00 Date Received: 09/10/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.73		2.5	0.73	ug/L			09/13/16 12:27	5
Bromoform	<2.2		5.0	2.2	ug/L			09/13/16 12:27	5
Carbon tetrachloride	<1.9		5.0	1.9	ug/L			09/13/16 12:27	5
Chloroform	<1.9		5.0	1.9	ug/L			09/13/16 12:27	5
cis-1,2-Dichloroethene	<2.0		5.0	2.0	ug/L			09/13/16 12:27	5
Dichlorobromomethane	<1.9		5.0	1.9	ug/L			09/13/16 12:27	5
1,2-Dichloroethane	<2.0		5.0	2.0	ug/L			09/13/16 12:27	5
1,1-Dichloroethene	<2.0		5.0	2.0	ug/L			09/13/16 12:27	5
Ethylbenzene	< 0.92		2.5	0.92	ug/L			09/13/16 12:27	5
Methyl bromide	<3.2		10	3.2	ug/L			09/13/16 12:27	5
Methyl chloride	<1.6		5.0	1.6	ug/L			09/13/16 12:27	5
Methyl tert-butyl ether	<2.0		5.0	2.0	ug/L			09/13/16 12:27	5
1,1,2,2-Tetrachloroethane	<2.0		5.0	2.0	ug/L			09/13/16 12:27	5
Toluene	<0.76		2.5	0.76	ug/L			09/13/16 12:27	5
trans-1,2-Dichloroethene	<1.7		5.0	1.7	ug/L			09/13/16 12:27	5
1,1,1-Trichloroethane	<1.9		5.0	1.9	ug/L			09/13/16 12:27	5
1,1,2-Trichloroethane	<1.8		5.0	1.8	ug/L			09/13/16 12:27	5
Trichloroethene	<0.82		2.5	0.82	ug/L			09/13/16 12:27	5
Vinyl chloride	<1.0		2.5	1.0	ug/L			09/13/16 12:27	5
Xylenes, Total	<2.0		5.0	2.0	ug/L			09/13/16 12:27	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		71 - 120			-		09/13/16 12:27	5
1,2-Dichloroethane-d4 (Surr)	93		71 - 127					09/13/16 12:27	5
Toluene-d8 (Surr)	99		75 - 120					09/13/16 12:27	5
Method: 624 - Volatile Orga	anic Compound	ds (GC/MS	) - DL						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

Method: 624 - Volatile Organi Analyte	•	ds (GC/MS Qualifier	i) - DL RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1600		50	19	ug/L			09/13/16 12:53	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		71 - 120			-		09/13/16 12:53	50
1,2-Dichloroethane-d4 (Surr)	92		71 - 127					09/13/16 12:53	50
Toluene-d8 (Surr)	99		75 - 120					09/13/16 12:53	50

General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<1.4		5.4	1.4	mg/L		09/12/16 16:25	09/12/16 20:13	1
Chloride	110		5.0	1.9	mg/L			09/12/16 22:33	25
Total Suspended Solids	<2.5		5.0	2.5	mg/L			09/12/16 16:36	1

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Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-1

Lab Sample ID: 500-116854-2

**Matrix: Water** 

Client Sample ID: Effluent
Date Collected: 09/09/16 13:10
Date Received: 09/10/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			09/13/16 12:00	1
Bromoform	<0.45		1.0	0.45	ug/L			09/13/16 12:00	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			09/13/16 12:00	1
Chloroform	<0.37		1.0	0.37	ug/L			09/13/16 12:00	1
cis-1,2-Dichloroethene	19		1.0	0.41	ug/L			09/13/16 12:00	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			09/13/16 12:00	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			09/13/16 12:00	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			09/13/16 12:00	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			09/13/16 12:00	1
Methyl bromide	<0.65		2.0	0.65	ug/L			09/13/16 12:00	1
Methyl chloride	<0.32		1.0	0.32	ug/L			09/13/16 12:00	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			09/13/16 12:00	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			09/13/16 12:00	1
Tetrachloroethene	39		1.0	0.37	ug/L			09/13/16 12:00	1
Toluene	<0.15		0.50	0.15	ug/L			09/13/16 12:00	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			09/13/16 12:00	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			09/13/16 12:00	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			09/13/16 12:00	1
Trichloroethene	9.2		0.50	0.16	ug/L			09/13/16 12:00	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			09/13/16 12:00	1
Xylenes, Total	<0.40		1.0	0.40	ug/L			09/13/16 12:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		71 - 120			-		09/13/16 12:00	1
1,2-Dichloroethane-d4 (Surr)	90		71 - 127					09/13/16 12:00	1
Toluene-d8 (Surr)	101		75 - 120					09/13/16 12:00	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

<b>_</b>								
General Chemistry								
Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	<1.4	5.3	1.4	mg/L		09/12/16 16:31	09/12/16 20:18	1
Chloride	110	5.0	1.9	mg/L			09/12/16 23:11	25
Total Suspended Solids	40.1	5.0	2.5	ma/l			09/12/16 16:37	1

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-1

Lab Sample ID: 500-116854-3

**Matrix: Water** 

Client Sample ID: Trip Blank Date Collected: 09/09/16 00:00

Date Received: 09/10/16 10:45

Analyte	Result Qualifie	er RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15	0.50	0.15	ug/L			09/13/16 11:33	1
Bromoform	<0.45	1.0	0.45	ug/L			09/13/16 11:33	1
Carbon tetrachloride	<0.38	1.0	0.38	ug/L			09/13/16 11:33	1
Chloroform	<0.37	1.0	0.37	ug/L			09/13/16 11:33	1
cis-1,2-Dichloroethene	<0.41	1.0	0.41	ug/L			09/13/16 11:33	1
Dichlorobromomethane	<0.37	1.0	0.37	ug/L			09/13/16 11:33	1
1,2-Dichloroethane	<0.39	1.0	0.39	ug/L			09/13/16 11:33	1
1,1-Dichloroethene	<0.39	1.0	0.39	ug/L			09/13/16 11:33	1
Ethylbenzene	<0.18	0.50	0.18	ug/L			09/13/16 11:33	1
Methyl bromide	<0.65	2.0	0.65	ug/L			09/13/16 11:33	1
Methyl chloride	<0.32	1.0	0.32	ug/L			09/13/16 11:33	1
Methyl tert-butyl ether	<0.39	1.0	0.39	ug/L			09/13/16 11:33	1
1,1,2,2-Tetrachloroethane	<0.40	1.0	0.40	ug/L			09/13/16 11:33	1
Tetrachloroethene	<0.37	1.0	0.37	ug/L			09/13/16 11:33	1
Toluene	<0.15	0.50	0.15	ug/L			09/13/16 11:33	1
trans-1,2-Dichloroethene	<0.35	1.0	0.35	ug/L			09/13/16 11:33	1
1,1,1-Trichloroethane	<0.38	1.0	0.38	ug/L			09/13/16 11:33	1
1,1,2-Trichloroethane	< 0.35	1.0	0.35	ug/L			09/13/16 11:33	1
Trichloroethene	<0.16	0.50	0.16	ug/L			09/13/16 11:33	1
Vinyl chloride	<0.20	0.50	0.20	ug/L			09/13/16 11:33	1
Xylenes, Total	<0.40	1.0	0.40	ug/L			09/13/16 11:33	1
Surrogate	%Recovery Qualifie	er Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102	71 - 120					09/13/16 11:33	1
1,2-Dichloroethane-d4 (Surr)	89	71 - 127					09/13/16 11:33	1
Toluene-d8 (Surr)	100	75 - 120					09/13/16 11:33	1

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## **Definitions/Glossary**

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

**Quality Control** 

Relative error ratio

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

TestAmerica Job ID: 500-116854-1

#### **Qualifiers**

#### **General Chemistry**

Qualifier	Qualifier Description
-----------	-----------------------

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

## Glossary

QC

RER

**RPD** 

TEF

**TEQ** 

RL

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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 Association Summary**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-1

## **GC/MS VOA**

#### Analysis Batch: 351410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116854-1	Influent	Total/NA	Water	624	
500-116854-1 - DL	Influent	Total/NA	Water	624	
500-116854-2	Effluent	Total/NA	Water	624	
500-116854-3	Trip Blank	Total/NA	Water	624	
MB 500-351410/7	Method Blank	Total/NA	Water	624	
LCS 500-351410/5	Lab Control Sample	Total/NA	Water	624	

## **General Chemistry**

### **Prep Batch: 351341**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116854-1	Influent	Total/NA	Water	1664B	
500-116854-2	Effluent	Total/NA	Water	1664B	
MB 500-351341/1-A	Method Blank	Total/NA	Water	1664B	
LCS 500-351341/2-A	Lab Control Sample	Total/NA	Water	1664B	

#### **Analysis Batch: 351343**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116854-1	Influent	Total/NA	Water	1664B	351341
500-116854-2	Effluent	Total/NA	Water	1664B	351341
MB 500-351341/1-A	Method Blank	Total/NA	Water	1664B	351341
LCS 500-351341/2-A	Lab Control Sample	Total/NA	Water	1664B	351341

#### Analysis Batch: 351364

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116854-1	Influent	Total/NA	Water	SM 2540D	
500-116854-2	Effluent	Total/NA	Water	SM 2540D	
MB 500-351364/1	Method Blank	Total/NA	Water	SM 2540D	
LCS 500-351364/2	Lab Control Sample	Total/NA	Water	SM 2540D	

#### **Analysis Batch: 351457**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116854-1	Influent	Total/NA	Water	300.0	
500-116854-2	Effluent	Total/NA	Water	300.0	
MB 500-351457/15	Method Blank	Total/NA	Water	300.0	
LCS 500-351457/16	Lab Control Sample	Total/NA	Water	300.0	

## **Surrogate Summary**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-1

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

**Matrix: Water** Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		BFB	12DCE	TOL			
Lab Sample ID	Client Sample ID	(71-120)	(71-127)	(75-120)			
500-116854-1	Influent	104	93	99			
500-116854-1 - DL	Influent	103	92	99			
500-116854-2	Effluent	103	90	101			
500-116854-3	Trip Blank	102	89	100			
LCS 500-351410/5	Lab Control Sample	102	89	101			
MB 500-351410/7	Method Blank	102	91	99			

BFB = 4-Bromofluorobenzene (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

TOL = Toluene-d8 (Surr)

TestAmerica Job ID: 500-116854-1

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

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

Lab Sample ID: MB 500-351410/7

**Matrix: Water** 

**Analysis Batch: 351410** 

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

	МВ	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			09/13/16 11:06	1
Bromoform	<0.45		1.0	0.45	ug/L			09/13/16 11:06	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			09/13/16 11:06	1
Chloroform	<0.37		1.0	0.37	ug/L			09/13/16 11:06	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			09/13/16 11:06	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			09/13/16 11:06	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			09/13/16 11:06	1
1,1-Dichloroethene	< 0.39		1.0	0.39	ug/L			09/13/16 11:06	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			09/13/16 11:06	1
Methyl bromide	<0.65		2.0	0.65	ug/L			09/13/16 11:06	1
Methyl chloride	< 0.32		1.0	0.32	ug/L			09/13/16 11:06	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			09/13/16 11:06	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			09/13/16 11:06	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			09/13/16 11:06	1
Toluene	<0.15		0.50	0.15	ug/L			09/13/16 11:06	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			09/13/16 11:06	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			09/13/16 11:06	1
1,1,2-Trichloroethane	< 0.35		1.0	0.35	ug/L			09/13/16 11:06	1
Trichloroethene	<0.16		0.50	0.16	ug/L			09/13/16 11:06	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			09/13/16 11:06	1
Xylenes, Total	< 0.40		1.0	0.40	ug/L			09/13/16 11:06	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	102		71 - 120	09/13/16 11	06 1	
1,2-Dichloroethane-d4 (Surr)	91		71 - 127	09/13/16 11.	06 1	
Toluene-d8 (Surr)	99		75 - 120	09/13/16 11.	06 1	

Lab Sample ID: LCS 500-351410/5

**Matrix: Water** 

Analysis Batch: 351410

Client Sample	ID:	Lab	Control	Sampl	е
		Prep	Type:	Total/N	Α

7 many 515 Datom 50 1 1 15							
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	50.0	48.3		ug/L		97	37 - 151
Bromoform	50.0	43.7		ug/L		87	45 - 169
Carbon tetrachloride	50.0	47.6		ug/L		95	70 - 140
Chloroform	50.0	47.2		ug/L		94	51 - 138
cis-1,2-Dichloroethene	50.0	48.5		ug/L		97	70 - 130
Dichlorobromomethane	50.0	43.7		ug/L		87	35 - 155
1,2-Dichloroethane	50.0	44.8		ug/L		90	49 - 155
1,1-Dichloroethene	50.0	49.7		ug/L		99	10 - 234
Ethylbenzene	50.0	48.2		ug/L		96	37 - 162
Methyl bromide	50.0	37.1		ug/L		74	10 - 242
Methyl chloride	50.0	54.0		ug/L		108	10 - 273
m&p-Xylene	50.0	47.8		ug/L		96	
o-Xylene	50.0	46.6		ug/L		93	
1,1,2,2-Tetrachloroethane	50.0	46.2		ug/L		92	46 - 157
Tetrachloroethene	50.0	53.8		ug/L		108	64 - 148
Toluene	50.0	49.1		ug/L		98	47 - 150
				-			

TestAmerica Chicago

Page 13 of 21

9/14/2016

TestAmerica Job ID: 500-116854-1

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

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

Lab Sample ID: LCS 500-351410/5

**Matrix: Water** 

**Analysis Batch: 351410** 

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

% Poo

Spike	LCS	LCS				%Rec.
Added	Result	Qualifier	Unit	D	%Rec	Limits
50.0	47.9	-	ug/L		96	54 - 156
50.0	48.8		ug/L		98	52 - 162
50.0	48.0		ug/L		96	52 - 150
50.0	53.2		ug/L		106	71 - 157
50.0	47.4		ug/L		95	10 - 251
	Added 50.0 50.0 50.0 50.0	Added         Result           50.0         47.9           50.0         48.8           50.0         48.0           50.0         53.2	Added         Result         Qualifier           50.0         47.9           50.0         48.8           50.0         48.0           50.0         53.2	Added         Result         Qualifier         Unit           50.0         47.9         ug/L           50.0         48.8         ug/L           50.0         48.0         ug/L           50.0         53.2         ug/L	Added         Result         Qualifier         Unit         D           50.0         47.9         ug/L           50.0         48.8         ug/L           50.0         48.0         ug/L           50.0         53.2         ug/L	Added         Result         Qualifier         Unit         D         %Rec           50.0         47.9         ug/L         96           50.0         48.8         ug/L         98           50.0         48.0         ug/L         96           50.0         53.2         ug/L         106

LCS LCS Surrogate %Recovery Qualifier Limits 4-Bromofluorobenzene (Surr) 102 71 - 120 1,2-Dichloroethane-d4 (Surr) 89 71 - 127 Toluene-d8 (Surr) 101 75 - 120

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

Lab Sample ID: MB 500-351341/1-A Client Sample ID: Method Blank Prep Type: Total/NA

**Matrix: Water** 

Analysis Batch: 351343

MB MB

Result Qualifier RL **MDL** Unit Analyte Prepared Analyzed Dil Fac HEM (Oil & Grease) 5.0 1.3 mg/L 09/12/16 16:04 09/12/16 19:50 <1.3

Lab Sample ID: LCS 500-351341/2-A **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA Analysis Batch: 351343 **Prep Batch: 351341** LCS LCS Spike %Rec. Added Result Qualifier Unit D %Rec Limits

Analyte HEM (Oil & Grease) 40.0 31.80 mg/L 79 78 - 114

#### Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-351457/15 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 351457

MB MB

Analyte Result Qualifier RL **MDL** Unit Analyzed Dil Fac Prepared 0.20 Chloride <0.076 0.076 mg/L 09/12/16 16:24

Lab Sample ID: LCS 500-351457/16 **Client Sample ID: Lab Control Sample Matrix: Water** Prep Type: Total/NA

**Analysis Batch: 351457** 

Spike LCS LCS %Rec. Added Analyte Result Qualifier Unit %Rec Limits D 3.00 94 Chloride 2.81 mg/L 90 - 110

TestAmerica Chicago

9/14/2016

**Prep Batch: 351341** 

# **QC Sample Results**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-1

Client Sample ID: Method Blank

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

Lab Sample ID: MB 500-351364/1

**Matrix: Water** 

Analysis Batch: 351364

MB MB

Analyte

Result Qualifier <2.5

RL 5.0

**MDL** Unit 2.5 mg/L

D Prepared

Analyzed Dil Fac 09/12/16 16:20

**Prep Type: Total/NA** 

**Prep Type: Total/NA** 

Lab Sample ID: LCS 500-351364/2

**Matrix: Water** 

Total Suspended Solids

Analysis Batch: 351364

Analyte

Total Suspended Solids

Spike Added 200

LCS LCS Result Qualifier 186

Unit mg/L

D %Rec 93

%Rec. Limits 80 - 120

**Client Sample ID: Lab Control Sample** 

TestAmerica Job ID: 500-116854-1

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

Lab Sample ID: 500-116854-1

**Matrix: Water** 

Client Sample ID: Influent
Date Collected: 09/09/16 13:00
Date Received: 09/10/16 10:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624		5	351410	09/13/16 12:27	TCT	TAL CHI
Total/NA	Analysis	624	DL	50	351410	09/13/16 12:53	TCT	TAL CHI
Total/NA	Prep	1664B			351341	09/12/16 16:25	ADK	TAL CHI
Total/NA	Analysis	1664B		1	351343	09/12/16 20:13	ADK	TAL CHI
Total/NA	Analysis	300.0		25	351457	09/12/16 22:33	CCK	TAL CHI
Total/NA	Analysis	SM 2540D		1	351364		SMO	TAL CHI
					(Start) C	9/12/16 16:36		
					(End) C	9/12/16 16:37		

Client Sample ID: Effluent Lab Sample ID: 500-116854-2

Date Collected: 09/09/16 13:10 Matrix: Water

Date Received: 09/10/16 10:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624			351410	09/13/16 12:00	TCT	TAL CHI
Total/NA	Prep	1664B			351341	09/12/16 16:31	ADK	TAL CHI
Total/NA	Analysis	1664B		1	351343	09/12/16 20:18	ADK	TAL CH
Total/NA	Analysis	300.0		25	351457	09/12/16 23:11	CCK	TAL CH
Total/NA	Analysis	SM 2540D		1	351364		SMO	TAL CH
					(Start) 0	9/12/16 16:37		
					(End) (	9/12/16 16:39		

Client Sample ID: Trip Blank

Date Collected: 09/09/16 00:00

Lab Sample ID: 500-116854-3

Matrix: Water

Date Received: 09/10/16 10:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	624			351410	09/13/16 11:33	TCT	TAL CHI

#### Laboratory References:

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

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# **Certification Summary**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-1

**Laboratory: TestAmerica Chicago** 

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Wisconsin	State Program	5	999580010	08-31-17

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THE LEADER IN ENVIRONMENTAL TESTING  2417 Bond Street, University Park, IL 60484 Phone: 708.534.5200 Fax: 708.534.5211	Report To Contact: Alina SatksKi Company: Andry Stehn Address: Address: Phone: Fax: E-Mail:	Goptional)	Chain of Custody Record  Lab Job #: 500 110854  Chain of Custody Number: Page of  Temperature °C of Cooler: 2.3
Client Project #  Project Name  SSISISUS  Project Location/State  Lab Project #	Preservative Parameter		Preservative Key  1. HCL, Cool to 4°  2. H2SO4, Cool to 4°  Cool, to 4°
Project Location/State  Machina Satkoski Sanaic For San	Sampling Date Time Journal Walter Towns 1/9/16/1300 Q W	2 x x 2 Chiorid 2 x x x 2 Chiorid 2 x x x 2 Chiorid 2 x x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x	500-116854 COC  Comments  **Comments**
	/9/16/13/0 9 W X		tor VOC r PAH SEE attoched analyte list.
Turnaround Time Required (Business Days)1 Day2 Days 5 Days 7 Days 10 Days 15 Days 15 Days 15 Days 10 Days 10 Days 10 Days 15 Days 10 Days			may be assessed if samples are retained longer than 1 month)
Relinquished By Company Date  Relinquished By Company Date	Time.	Company A L Dete 01/10  Company Date	Time / D' Lab Courier Shipped TX SATURDAL
Matrix Key  WW - Wastewater  W - Water  SO - Soil  S - Soil  L Leachate  SL - Sludge  WI - Wipe  MS - Miscellaneous  DW - Drinking Water  OL - Oil  O - Other  A - Air		Lab Comments:	Hand Delivered

(optional)

Parameter	Method
VOCs	
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
TSS	
Suspended Solids, Total	2540D
BTEX	
Benzene	
Toluene	624
Ethylbenzene	
Xylenes	

500-116854

PAHs (Group of 10)	
Benzo(a)anthracene	
Benzo(b)fluoranthene	
Benzo(g,h,i)perylene	
Benzo(k)fluoranthene	
Chrysene	625 SIM
Dibenzo(a,h)anthracene	025 SIM
Fluoranthene	
Indeno(1,2,3-cd)pyrene	
Phenanthrene	
Pyrene	
PAHs	
Benzo(a)pyrene	625 SIM
Naphthalene	029 SIIVI
Oil and Grease	
Oil and Grease	1664
BOD <sub>5</sub>	
BOD₅	5210B
Anions	
Chloride	300

# **Login Sample Receipt Checklist**

Client: Madison-Kipp Corporation Job Number: 500-116854-1

Login Number: 116854 List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

Creator. Sanchez, Ariel M		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	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	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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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: 500-116854-2

Client Project/Site: MadisonKipp - GETS/SVE

#### For:

Madison-Kipp Corporation 201 Waubesa Street Madison, Wisconsin 53704

Attn: Alina Satkoski

Sanda freduik

Authorized for release by: 9/15/2016 3:59:54 PM

Sandie Fredrick, Project Manager II (920)261-1660

sandie.fredrick@testamericainc.com

----- LINKS -----

Review your project results through

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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.

# **Table of Contents**

Cover Page	1
Table of Contents	2
Case Narrative	3
Detection Summary	4
Method Summary	5
Sample Summary	6
Client Sample Results	7
Definitions	9
QC Association	10
Surrogate Summary	11
QC Sample Results	12
Chronicle	14
Certification Summary	15
Chain of Custody	16
Receipt Checklists	18

3

4

6

8

40

11

13

14

#### **Case Narrative**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-2

Job ID: 500-116854-2

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-116854-2

#### Comments

No additional comments.

#### Receipt

The samples were received on 9/10/2016 10:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.3° C.

#### Receipt Exceptions

One or more containers for the following sample was received broken or leaking: Influent (500-116854-1). Sufficient sample remains.

#### GC/MS Semi VOA

Method(s) 625 SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 490-369868 and analytical batch 490-370004.

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

#### **General Chemistry**

Method(s) SM 5210B: The BOD unseeded control blank (USB) was found outside the control limit of <0.2 mgO2/L. However, the laboratory control standard (LCS) was in control; therefore, the data was reported.

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

#### **Organic Prep**

Method(s) 625: The sample color could have given a false positive for CI but it was treated to be safe. Influent (500-116854-1)

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

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# **Detection Summary**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-2

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Client Sample ID: Influent

No Detections.

Lab Sample ID: 500-116854-1

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THO DOLOGICATIO

Client Sample ID: Effluent Lab Sample ID: 500-116854-2

No Detections.

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# **Method Summary**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-2

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

#### **Protocol References:**

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

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

#### **Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200 TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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# **Sample Summary**

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

TestAmerica Job ID: 500-116854-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-116854-1	Influent	Water	09/09/16 13:00	09/10/16 10:45
500-116854-2	Effluent	Water	09/09/16 13:10	09/10/16 10:45

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Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-2

Lab Sample ID: 500-116854-1

**Matrix: Water** 

Client Sample ID: Influent
Date Collected: 09/09/16 13:00
Date Received: 09/10/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.024		0.048	0.024	ug/L		09/13/16 19:43	09/14/16 14:04	1
Benzo[a]pyrene	<0.024		0.048	0.024	ug/L		09/13/16 19:43	09/14/16 14:04	1
Benzo[b]fluoranthene	<0.024		0.048	0.024	ug/L		09/13/16 19:43	09/14/16 14:04	1
Benzo[g,h,i]perylene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:04	1
Benzo[k]fluoranthene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:04	1
Chrysene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:04	1
Dibenz(a,h)anthracene	<0.024		0.048	0.024	ug/L		09/13/16 19:43	09/14/16 14:04	1
Fluoranthene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:04	1
Indeno[1,2,3-cd]pyrene	<0.024		0.048	0.024	ug/L		09/13/16 19:43	09/14/16 14:04	1
Naphthalene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:04	1
Phenanthrene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:04	1
Pyrene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	71	· <del></del>	27 - 120				09/13/16 19:43	09/14/16 14:04	1
Terphenyl-d14	87		13 - 120				09/13/16 19:43	09/14/16 14:04	1
2-Fluorobiphenyl (Surr)	71		10 - 120				09/13/16 19:43	09/14/16 14:04	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			09/10/16 13:43	1

TestAmerica Chicago

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Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-2

Lab Sample ID: 500-116854-2

**Matrix: Water** 

Client Sample ID: Effluent Date Collected: 09/09/16 13:10 Date Received: 09/10/16 10:45

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.024		0.048	0.024	ug/L		09/13/16 19:43	09/14/16 14:28	1
Benzo[a]pyrene	<0.024		0.048	0.024	ug/L		09/13/16 19:43	09/14/16 14:28	1
Benzo[b]fluoranthene	<0.024		0.048	0.024	ug/L		09/13/16 19:43	09/14/16 14:28	1
Benzo[g,h,i]perylene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:28	1
Benzo[k]fluoranthene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:28	1
Chrysene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:28	1
Dibenz(a,h)anthracene	<0.024		0.048	0.024	ug/L		09/13/16 19:43	09/14/16 14:28	1
Fluoranthene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:28	1
Indeno[1,2,3-cd]pyrene	<0.024		0.048	0.024	ug/L		09/13/16 19:43	09/14/16 14:28	1
Naphthalene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:28	1
Phenanthrene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:28	1
Pyrene	<0.048		0.096	0.048	ug/L		09/13/16 19:43	09/14/16 14:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	93		27 - 120				09/13/16 19:43	09/14/16 14:28	1
Terphenyl-d14	91		13 - 120				09/13/16 19:43	09/14/16 14:28	1
2-Fluorobiphenyl (Surr)	83		10 - 120				09/13/16 19:43	09/14/16 14:28	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	<2.0		2.0	2.0	mg/L			09/10/16 13:47	

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# **Definitions/Glossary**

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

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 500-116854-2

## Glossary

TEF

TEQ

Abbreviation	These commonly used abbreviations may or may not be present in this report.
a	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, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
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
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points

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TestAmerica Chicago

# **QC Association Summary**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-2

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## **GC/MS Semi VOA**

**Prep Batch: 369868** 

L	_ab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
5	500-116854-1	Influent	Total/NA	Water	625	
5	500-116854-2	Effluent	Total/NA	Water	625	
Ν	MB 490-369868/1-A	Method Blank	Total/NA	Water	625	
L	CS 490-369868/2-A	Lab Control Sample	Total/NA	Water	625	

Analysis Batch: 370004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116854-1	Influent	Total/NA	Water	625 SIM	369868
500-116854-2	Effluent	Total/NA	Water	625 SIM	369868
MB 490-369868/1-A	Method Blank	Total/NA	Water	625 SIM	369868
LCS 490-369868/2-A	Lab Control Sample	Total/NA	Water	625 SIM	369868

# **General Chemistry**

#### **Analysis Batch: 351179**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-116854-1	Influent	Total/NA	Water	SM 5210B	
500-116854-2	Effluent	Total/NA	Water	SM 5210B	
USB 500-351179/1	Method Blank	Total/NA	Water	SM 5210B	
LCS 500-351179/2	Lab Control Sample	Total/NA	Water	SM 5210B	

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## **Surrogate Summary**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-2

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

Matrix: Water Prep Type: Total/NA

			Pe	ercent Surro
		NBZ	TPH	FBP
Lab Sample ID	Client Sample ID	(27-120)	(13-120)	(10-120)
500-116854-1	Influent	71	87	71
500-116854-2	Effluent	93	91	83
LCS 490-369868/2-A	Lab Control Sample	78	83	75
MB 490-369868/1-A	Method Blank	80	83	75

**Surrogate Legend** 

NBZ = Nitrobenzene-d5

TPH = Terphenyl-d14

FBP = 2-Fluorobiphenyl (Surr)

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

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

Lab Sample ID: MB 490-369868/1-A

**Matrix: Water** 

Analysis Batch: 370004

Client Sample ID: Method Blank **Prep Type: Total/NA Prep Batch: 369868** 

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	<0.025		0.050	0.025	ug/L		09/13/16 19:43	09/14/16 13:15	1
Benzo[a]pyrene	<0.025		0.050	0.025	ug/L		09/13/16 19:43	09/14/16 13:15	1
Benzo[b]fluoranthene	<0.025		0.050	0.025	ug/L		09/13/16 19:43	09/14/16 13:15	1
Benzo[g,h,i]perylene	<0.050		0.10	0.050	ug/L		09/13/16 19:43	09/14/16 13:15	1
Benzo[k]fluoranthene	<0.050		0.10	0.050	ug/L		09/13/16 19:43	09/14/16 13:15	1
Chrysene	<0.050		0.10	0.050	ug/L		09/13/16 19:43	09/14/16 13:15	1
Dibenz(a,h)anthracene	<0.025		0.050	0.025	ug/L		09/13/16 19:43	09/14/16 13:15	1
Fluoranthene	<0.050		0.10	0.050	ug/L		09/13/16 19:43	09/14/16 13:15	1
Indeno[1,2,3-cd]pyrene	<0.025		0.050	0.025	ug/L		09/13/16 19:43	09/14/16 13:15	1
Naphthalene	<0.050		0.10	0.050	ug/L		09/13/16 19:43	09/14/16 13:15	1
Phenanthrene	<0.050		0.10	0.050	ug/L		09/13/16 19:43	09/14/16 13:15	1
Pyrene	<0.050		0.10	0.050	ug/L		09/13/16 19:43	09/14/16 13:15	1

MB MB

	11.12	1110				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	80		27 - 120	09/13/16 19:43	09/14/16 13:15	1
Terphenyl-d14	83		13 - 120	09/13/16 19:43	09/14/16 13:15	1
2-Fluorobiphenyl (Surr)	75		10 - 120	09/13/16 19:43	09/14/16 13:15	1
	Nitrobenzene-d5 Terphenyl-d14	Surrogate         %Recovery           Nitrobenzene-d5         80           Terphenyl-d14         83	Nitrobenzene-d5 80 Terphenyl-d14 83	Surrogate         %Recovery         Qualifier         Limits           Nitrobenzene-d5         80         27 - 120           Terphenyl-d14         83         13 - 120	Surrogate         %Recovery Nitrobenzene-d5         Qualifier         Limits         Prepared           Nitrobenzene-d5         80         27 - 120         09/13/16 19:43           Terphenyl-d14         83         13 - 120         09/13/16 19:43	Surrogate         %Recovery Nitrobenzene-d5         Qualifier         Limits         Prepared         Analyzed           Terphenyl-d14         83         27 - 120         09/13/16 19:43         09/14/16 13:15           09/13/16 19:43         09/14/16 13:15         09/13/16 19:43         09/14/16 13:15

Lab Sample ID: LCS 490-369868/2-A

**Matrix: Water** 

**Analysis Batch: 370004** 

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

**Prep Batch: 369868** 

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzo[a]anthracene	4.00	3.48		ug/L		87	33 - 143	
Benzo[a]pyrene	4.00	3.37		ug/L		84	17 - 163	
Benzo[b]fluoranthene	4.00	3.38		ug/L		85	24 - 159	
Benzo[g,h,i]perylene	4.00	3.26		ug/L		82	10 - 219	
Benzo[k]fluoranthene	4.00	2.97		ug/L		74	11 - 162	
Chrysene	4.00	3.26		ug/L		82	17 - 168	
Dibenz(a,h)anthracene	4.00	3.20		ug/L		80	10 - 227	
Fluoranthene	4.00	3.09		ug/L		77	26 - 137	
Indeno[1,2,3-cd]pyrene	4.00	3.18		ug/L		79	10 - 171	
Naphthalene	4.00	2.74		ug/L		69	21 - 133	
Phenanthrene	4.00	2.81		ug/L		70	54 - 120	
Pyrene	4.00	2.86		ug/L		71	52 - 115	

LCS LCS

Surrogate	%Recovery Qualifier	Limits
Nitrobenzene-d5	78	27 - 120
Terphenyl-d14	83	13 - 120
2-Fluorobiphenyl (Surr)	75	10 - 120

# **QC Sample Results**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-2

Client Sample ID: Method Blank

Dil Fac

Method:	SM	5210B	- BOD,	5-Day

Lab Sample ID: USB 500-351179/1

**Matrix: Water** 

**Analysis Batch: 351179** 

USB USB

Analyte Result Qualifier **Biochemical Oxygen Demand** 

<2.0

RL 2.0 MDL Unit 2.0 mg/L

Prepared

Analyzed 09/10/16 13:35

%Rec.

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

Prep Type: Total/NA

Lab Sample ID: LCS 500-351179/2 **Matrix: Water** 

**Analysis Batch: 351179** 

Analyte Biochemical Oxygen Demand

Spike Added 198 LCS LCS 187

Result Qualifier Unit

mg/L

Limits D %Rec 95 85 - 115

## **Lab Chronicle**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-2

Lab Sample ID: 500-116854-1

**Matrix: Water** 

Client Sample ID: Influent Date Collected: 09/09/16 13:00 Date Received: 09/10/16 10:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	625			369868	09/13/16 19:43	DHC	TAL NSH
Total/NA	Analysis	625 SIM		1	370004	09/14/16 14:04	T1C	TAL NSH
Total/NA	Analysis	SM 5210B		1	351179		EAT	TAL CHI
					(Start) 0	9/10/16 13:43		
					(End) (	9/10/16 13:47		
_					(End) (	09/10/16 13:47		

Client Sample ID: Effluent Lab Sample ID: 500-116854-2

Date Collected: 09/09/16 13:10 Matrix: Water

Date Received: 09/10/16 10:45

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	625			369868	09/13/16 19:43	DHC	TAL NSH
Total/NA	Analysis	625 SIM		1	370004	09/14/16 14:28	T1C	TAL NSH
Total/NA	Analysis	SM 5210B		1	351179		EAT	TAL CHI
					(Start) 0	09/10/16 13:47		
					(End) (	09/10/16 13:51		

#### **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

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# **Certification Summary**

Client: Madison-Kipp Corporation Project/Site: MadisonKipp - GETS/SVE TestAmerica Job ID: 500-116854-2

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The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Wisconsin	State Program	5	999580010	08-31-17

## **Laboratory: TestAmerica Nashville**

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
Wisconsin	State Program	5	998020430	08-31-17



THE LEADER IN ENVIRONMENTAL TESTING Nashville, TN

#### COOLER RECEIPT FORM



Cooler Received/Opened On 99/13/2016 @ 0900 Time Samples Removed From Cooler Time Samples Placed In Storage\_ 1. Tracking # (last 4 digits, FedEx) Courier: \_FedEx\_ IR Gun ID 97310166 pH Strip Lot HC581117 Chlorine Strip Lot 040715C ∳ Degrees Celsius 2. Temperature of rep. sample or temp blank when opened: 3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO..(NA YES...NO...NA 4. Were custody seals on outside of cooler? If yes, how many and where: 5. Were the seals intact, signed, and dated correctly? .NO...NA .NO...NA 6. Were custody papers inside cooler? I certify that I opened the cooler and answered questions 1-6 (intial) 7. Were custody seals on containers: YES (NO) and Intact YES...NO.(NA YES...NO..(NA) Were these signed and dated correctly? 8. Packing mat'l used? Bubblewrab Plastic bag Peanuts Vermiculite Foam Insert Paper Other None 9. Cooling process: Ice (direct contact) 10. Did all containers arrive in good condition (unbroken)? (YES...NO...NA (YES)...NO...NA 11. Were all container labels complete (#, date, signed, pres., etc)? (ES)...NO...NA 12. Did all container labels and tags agree with custody papers? 13a. Were VOA vials received? YES.(300)..NA b. Was there any observable headspace present in any VOA vial? YES...NO. NA YES...NO..(NA) If multiple coolers, sequence # 14. Was there a Trip Blank in this cooler? I certify that I unloaded the cooler and answered questions 7-14 (intial) 15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO.(NA) YES...(NO...NA b. Did the bottle labels indicate that the correct preservatives were used 16. Was residual chlorine present? YES...NO.(.NA H4G Lertify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) 17. Were custody papers properly filled out (ink, signed, etc)? (YES)...NO...NA (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? ES...NO...NA 20. Was sufficient amount of sample sent in each container? I certify that I entered this project into LIMS and answered questions 17-20 (intial) I certify that I attached a label with the unique LIMS number to each container (intial) 21. Were there Non-Conformance issues at login? (YES...(W) Was a NCM generated? (ES...(NO)..#\_Z6/140

# **Login Sample Receipt Checklist**

Client: Madison-Kipp Corporation Job Number: 500-116854-2

Login Number: 116854 List Source: TestAmerica Chicago

List Number: 1

Creator: Sanchez, Ariel M

Answer	Comment
True	
True	2.3
True	
N/A	
	True True True True True True True True

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# **Login Sample Receipt Checklist**

Client: Madison-Kipp Corporation Job Number: 500-116854-2

Login Number: 116854
List Source: TestAmerica Nashville
List Number: 2
List Creation: 09/13/16 04:20 PM

Creator: Gundi, Hozar K

Answer	Comment
N/A	
True	
N/A	
True	
N/A	
True	
N/A	
True	
True	
N/A	
	True N/A True N/A True True True True True True True True

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