MKC
Madison-Kipp Corporation

Post Office Box 8043
Madison, WI 53708-8043

201 Waubesa Street
Madison, WI 53704-5728

April 4, 2017

Emily James
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 Ms. James,

The Groundwater Extraction and Treatment System (GETS) ran for the month of March, with the exception of maintenance activities. This letter summarizes the activities completed in March 2017 as part of the GETS at the Madison Kipp Corporation (MKC) site under the Wisconsin Pollution Discharge Elimination System (WPDES) Permit WI-0046566-6. Compliance samples were collected on March 7, 2017 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.

If you have any questions or need additional information, please contact me at asatkoski@madison-kipp.com or (608) 242-5200.

Alina Satkoski

Alina Satkoski

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** **Year:____2017_____**

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

**Permit No. WI-0046566-6** Rev. December16, 2013

**Facility Name and Location**

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

| Outfall # and Description | | Flow (gal/day) | Oil & Grease (mg/L) | $BOD_5$ (mg/L) | Total BETX (µg/L) | PAHs group of 10 (µg/L) | Benzo(a) pyrene (µg/L) | Naphthalene (µg/L) | Potassium Permanganate (mg/L) | Benzene (µg/L) | TSS (mg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Effluent | Month: March 7, 2017 | 64,800 | 2.2 | <2.0 | <0.40 | <0.048 | <0.024 | <0.048 | Absent | <0.15 | <2.5 |
| | Month: | | | | | | | | | | |
| | Month: | | | | | | | | | | |
| | Month: | | | | | | | | | | |
| See Footnotes | | (4)(8) | (6) (5) | | (1) | (2) | | | (3) | | |
| Effluent Limits (refer to sec. 4 of the permit) | | -- | 10 mg/l | 20 mg/L | 750 µg/L | 0.1 µg/l | 0.1 µg/l | 70 µg/l | -- | 50 µg/l | 40 mg/L |
| Sample Frequency: Pre-treatment | | Daily | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly |
| Sample Frequency: Post-treatment | | Daily | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly |
| Sample Type | | Estimate | Grab | Grab | Grab | Grab | Grab | Grab | Grab | Grab | Grab |
| Impaired or TMDL surface waters | | Does this facility discharge a pollutant of concern to an impaired surface water or to a surface water with a TMDL allocation? □ No ● Yes | | | | | | | | | |

| Outfall # and Description | | VOCs (µg/L) | Vinyl Chloride (µg/L) | trans-1,2-Dichloroethene (µg/L) | 1,1-Dichloroethene (µg/L) | Tetrachloroethene (µg/L) | Chloride (mg/L) | cis-1,2-Dichloroethene (µg/L) | Trichloroethene (µg/L) | |
|---|---|---|---|---|---|---|---|---|---|---|
| Effluent | Month: March 7, 2017 | 55.7 | <0.20 | <0.35 | <0.39 | 29 | 120 | 19 | 7.7 | |
| | Month: | | | | | | | | | |
| | Month: | | | | | | | | | |
| | Month: | | | | | | | | | |
| See Footnotes | | (4) | | (4) | | | | (4) | | |
| Effluent Limits (refer to sec. 4 of the permit) | | -- | 10 ug/L | -- | 50 µg/L | 50 µg/L | 395 mg/L | -- | 50 µg/L | |
| Sample Frequency: Pre-treatment | | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | |
| Sample Frequency: Post-treatment | | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | Monthly | |
| Sample Type | | Grab | Grab | Grab | Grab | Grab | Grab | Grab | Grab | |

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/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.
(8) Between March 14 and March 15, the GETS extraction well was operated at 40 gpm.

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.

4-4-2017

Signature of Person Completing Form — Date

4-4-2017

Signature of Principal Exec. or Authorized Agent — Date

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: 500-124795-1
Client Project/Site: MadisonKipp - GETS/SVE

For:
Madison-Kipp Corporation
201 Waubesa Street
Madison, Wisconsin 53704

Attn: Alina Satkoski

Therese Hargraves

*Authorized for release by:*
*3/10/2017 1:39:40 PM*
Therese Hargraves, Project Manager I
therese.hargraves@testamericainc.com

Designee for

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

# Table of Contents

## Job ID: 500-124795-1

### Laboratory: TestAmerica Chicago

**Narrative**

**Job Narrative**
**500-124795-1**

**Comments**
No additional comments.

**Receipt**
The samples were received on 3/8/2017 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1º C.

**GC/MS VOA**
Method(s) 624: The following sample was diluted to bring the concentration of target analytes within the calibration range: Effluent (500-124795-1). Elevated reporting limits (RLs) are provided.

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

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

# Detection Summary

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

TestAmerica Job ID: 500-124795-1

## Client Sample ID: Effluent — Lab Sample ID: 500-124795-1

| 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 | 29 | | 1.0 | 0.37 | ug/L | 1 | | 624 | Total/NA |
| Trichloroethene | 7.7 | | 0.50 | 0.16 | ug/L | 1 | | 624 | Total/NA |
| HEM (Oil & Grease) | 2.7 | J B | 5.2 | 1.4 | mg/L | 1 | | 1664B | Total/NA |
| Chloride | 120 | | 4.0 | 1.5 | mg/L | 20 | | 300.0 | Total/NA |

## Client Sample ID: Influent — Lab Sample ID: 500-124795-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---|---|---|---|---|---|---|---|---|---|
| cis-1,2-Dichloroethene | 3.0 | | 2.0 | 0.82 | ug/L | 2 | | 624 | Total/NA |
| Trichloroethene | 20 | | 1.0 | 0.33 | ug/L | 2 | | 624 | Total/NA |
| Tetrachloroethene - DL | 1400 | | 20 | 7.4 | ug/L | 20 | | 624 | Total/NA |
| HEM (Oil & Grease) | 2.2 | J B | 5.2 | 1.4 | mg/L | 1 | | 1664B | Total/NA |
| Chloride | 120 | | 4.0 | 1.5 | mg/L | 20 | | 300.0 | Total/NA |

## Client Sample ID: Trip Blank — Lab Sample ID: 500-124795-3

No Detections.

This Detection Summary does not include radiochemical test results.

# Method Summary

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

TestAmerica Job ID: 500-124795-1

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

**Protocol References:**

1664B = 1664B

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

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

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

**Laboratory References:**

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

# Sample Summary

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

TestAmerica Job ID: 500-124795-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 500-124795-1 | Effluent | Water | 03/07/17 08:45 | 03/08/17 10:30 |
| 500-124795-2 | Influent | Water | 03/07/17 09:05 | 03/08/17 10:30 |
| 500-124795-3 | Trip Blank | Water | 03/07/17 00:00 | 03/08/17 10:30 |

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

TestAmerica Job ID: 500-124795-1

**Client Sample ID: Effluent**
**Date Collected: 03/07/17 08:45**
**Date Received: 03/08/17 10:30**

**Lab Sample ID: 500-124795-1**
**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 | | | 03/09/17 11:44 | 1 |
| Bromoform | <0.45 | | 1.0 | 0.45 | ug/L | | | 03/09/17 11:44 | 1 |
| Carbon tetrachloride | <0.38 | | 1.0 | 0.38 | ug/L | | | 03/09/17 11:44 | 1 |
| Chloroform | <0.37 | | 2.0 | 0.37 | ug/L | | | 03/09/17 11:44 | 1 |
| **cis-1,2-Dichloroethene** | **19** | | 1.0 | 0.41 | ug/L | | | 03/09/17 11:44 | 1 |
| Dichlorobromomethane | <0.37 | | 1.0 | 0.37 | ug/L | | | 03/09/17 11:44 | 1 |
| 1,2-Dichloroethane | <0.39 | | 1.0 | 0.39 | ug/L | | | 03/09/17 11:44 | 1 |
| 1,1-Dichloroethene | <0.39 | | 1.0 | 0.39 | ug/L | | | 03/09/17 11:44 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 03/09/17 11:44 | 1 |
| Methyl bromide | <0.65 | | 2.0 | 0.65 | ug/L | | | 03/09/17 11:44 | 1 |
| Methyl chloride | <0.32 | | 1.0 | 0.32 | ug/L | | | 03/09/17 11:44 | 1 |
| Methyl tert-butyl ether | <0.39 | | 1.0 | 0.39 | ug/L | | | 03/09/17 11:44 | 1 |
| 1,1,2,2-Tetrachloroethane | <0.40 | | 1.0 | 0.40 | ug/L | | | 03/09/17 11:44 | 1 |
| **Tetrachloroethene** | **29** | | 1.0 | 0.37 | ug/L | | | 03/09/17 11:44 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 03/09/17 11:44 | 1 |
| trans-1,2-Dichloroethene | <0.35 | | 1.0 | 0.35 | ug/L | | | 03/09/17 11:44 | 1 |
| 1,1,1-Trichloroethane | <0.38 | | 1.0 | 0.38 | ug/L | | | 03/09/17 11:44 | 1 |
| 1,1,2-Trichloroethane | <0.35 | | 1.0 | 0.35 | ug/L | | | 03/09/17 11:44 | 1 |
| **Trichloroethene** | **7.7** | | 0.50 | 0.16 | ug/L | | | 03/09/17 11:44 | 1 |
| Vinyl chloride | <0.20 | | 0.50 | 0.20 | ug/L | | | 03/09/17 11:44 | 1 |
| Xylenes, Total | <0.40 | | 1.0 | 0.40 | ug/L | | | 03/09/17 11:44 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *97* | | *71 - 120* | | *03/09/17 11:44* | *1* |
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *71 - 127* | | *03/09/17 11:44* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *75 - 120* | | *03/09/17 11:44* | *1* |

## General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **HEM (Oil & Grease)** | **2.7** | **J B** | 5.2 | 1.4 | mg/L | | 03/08/17 17:03 | 03/08/17 20:00 | 1 |
| **Chloride** | **120** | | 4.0 | 1.5 | mg/L | | | 03/09/17 21:15 | 20 |
| Total Suspended Solids | <2.5 | | 5.0 | 2.5 | mg/L | | | 03/08/17 14:52 | 1 |

## Client Sample ID: Influent

**Date Collected: 03/07/17 09:05**
**Date Received: 03/08/17 10:30**

## Lab Sample ID: 500-124795-2

**Matrix: Water**

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | <0.29 | | 1.0 | 0.29 | ug/L | | | 03/09/17 12:11 | 2 |
| Bromoform | <0.89 | | 2.0 | 0.89 | ug/L | | | 03/09/17 12:11 | 2 |
| Carbon tetrachloride | <0.77 | | 2.0 | 0.77 | ug/L | | | 03/09/17 12:11 | 2 |
| Chloroform | <0.74 | | 4.0 | 0.74 | ug/L | | | 03/09/17 12:11 | 2 |
| **cis-1,2-Dichloroethene** | **3.0** | | 2.0 | 0.82 | ug/L | | | 03/09/17 12:11 | 2 |
| Dichlorobromomethane | <0.74 | | 2.0 | 0.74 | ug/L | | | 03/09/17 12:11 | 2 |
| 1,2-Dichloroethane | <0.78 | | 2.0 | 0.78 | ug/L | | | 03/09/17 12:11 | 2 |
| 1,1-Dichloroethene | <0.78 | | 2.0 | 0.78 | ug/L | | | 03/09/17 12:11 | 2 |
| Ethylbenzene | <0.37 | | 1.0 | 0.37 | ug/L | | | 03/09/17 12:11 | 2 |
| Methyl bromide | <1.3 | | 4.0 | 1.3 | ug/L | | | 03/09/17 12:11 | 2 |
| Methyl chloride | <0.64 | | 2.0 | 0.64 | ug/L | | | 03/09/17 12:11 | 2 |
| Methyl tert-butyl ether | <0.79 | | 2.0 | 0.79 | ug/L | | | 03/09/17 12:11 | 2 |
| 1,1,2,2-Tetrachloroethane | <0.80 | | 2.0 | 0.80 | ug/L | | | 03/09/17 12:11 | 2 |
| Toluene | <0.30 | | 1.0 | 0.30 | ug/L | | | 03/09/17 12:11 | 2 |
| trans-1,2-Dichloroethene | <0.70 | | 2.0 | 0.70 | ug/L | | | 03/09/17 12:11 | 2 |
| 1,1,1-Trichloroethane | <0.76 | | 2.0 | 0.76 | ug/L | | | 03/09/17 12:11 | 2 |
| 1,1,2-Trichloroethane | <0.70 | | 2.0 | 0.70 | ug/L | | | 03/09/17 12:11 | 2 |
| **Trichloroethene** | **20** | | 1.0 | 0.33 | ug/L | | | 03/09/17 12:11 | 2 |
| Vinyl chloride | <0.41 | | 1.0 | 0.41 | ug/L | | | 03/09/17 12:11 | 2 |
| Xylenes, Total | <0.80 | | 2.0 | 0.80 | ug/L | | | 03/09/17 12:11 | 2 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *101* | | *71 - 120* | | *03/09/17 12:11* | *2* |
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *71 - 127* | | *03/09/17 12:11* | *2* |
| *Toluene-d8 (Surr)* | *101* | | *75 - 120* | | *03/09/17 12:11* | *2* |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **Tetrachloroethene** | **1400** | | 20 | 7.4 | ug/L | | | 03/09/17 12:38 | 20 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *71 - 120* | | *03/09/17 12:38* | *20* |
| *1,2-Dichloroethane-d4 (Surr)* | *96* | | *71 - 127* | | *03/09/17 12:38* | *20* |
| *Toluene-d8 (Surr)* | *101* | | *75 - 120* | | *03/09/17 12:38* | *20* |

### General Chemistry

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| **HEM (Oil & Grease)** | **2.2** | **J B** | 5.2 | 1.4 | mg/L | | 03/08/17 17:13 | 03/08/17 20:08 | 1 |
| **Chloride** | **120** | | 4.0 | 1.5 | mg/L | | | 03/09/17 21:28 | 20 |
| Total Suspended Solids | <2.5 | | 5.0 | 2.5 | mg/L | | | 03/08/17 14:55 | 1 |

**Client Sample ID: Trip Blank**
**Date Collected: 03/07/17 00:00**
**Date Received: 03/08/17 10:30**

**Lab Sample ID: 500-124795-3**
**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 | | | 03/09/17 11:18 | 1 |
| Bromoform | <0.45 | | 1.0 | 0.45 | ug/L | | | 03/09/17 11:18 | 1 |
| Carbon tetrachloride | <0.38 | | 1.0 | 0.38 | ug/L | | | 03/09/17 11:18 | 1 |
| Chloroform | <0.37 | | 2.0 | 0.37 | ug/L | | | 03/09/17 11:18 | 1 |
| cis-1,2-Dichloroethene | <0.41 | | 1.0 | 0.41 | ug/L | | | 03/09/17 11:18 | 1 |
| Dichlorobromomethane | <0.37 | | 1.0 | 0.37 | ug/L | | | 03/09/17 11:18 | 1 |
| 1,2-Dichloroethane | <0.39 | | 1.0 | 0.39 | ug/L | | | 03/09/17 11:18 | 1 |
| 1,1-Dichloroethene | <0.39 | | 1.0 | 0.39 | ug/L | | | 03/09/17 11:18 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 03/09/17 11:18 | 1 |
| Methyl bromide | <0.65 | | 2.0 | 0.65 | ug/L | | | 03/09/17 11:18 | 1 |
| Methyl chloride | <0.32 | | 1.0 | 0.32 | ug/L | | | 03/09/17 11:18 | 1 |
| Methyl tert-butyl ether | <0.39 | | 1.0 | 0.39 | ug/L | | | 03/09/17 11:18 | 1 |
| 1,1,2,2-Tetrachloroethane | <0.40 | | 1.0 | 0.40 | ug/L | | | 03/09/17 11:18 | 1 |
| Tetrachloroethene | <0.37 | | 1.0 | 0.37 | ug/L | | | 03/09/17 11:18 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 03/09/17 11:18 | 1 |
| trans-1,2-Dichloroethene | <0.35 | | 1.0 | 0.35 | ug/L | | | 03/09/17 11:18 | 1 |
| 1,1,1-Trichloroethane | <0.38 | | 1.0 | 0.38 | ug/L | | | 03/09/17 11:18 | 1 |
| 1,1,2-Trichloroethane | <0.35 | | 1.0 | 0.35 | ug/L | | | 03/09/17 11:18 | 1 |
| Trichloroethene | <0.16 | | 0.50 | 0.16 | ug/L | | | 03/09/17 11:18 | 1 |
| Vinyl chloride | <0.20 | | 0.50 | 0.20 | ug/L | | | 03/09/17 11:18 | 1 |
| Xylenes, Total | <0.40 | | 1.0 | 0.40 | ug/L | | | 03/09/17 11:18 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *97* | | *71 - 120* | | *03/09/17 11:18* | *1* |
| *1,2-Dichloroethane-d4 (Surr)* | *101* | | *71 - 127* | | *03/09/17 11:18* | *1* |
| *Toluene-d8 (Surr)* | *98* | | *75 - 120* | | *03/09/17 11:18* | *1* |

# Definitions/Glossary

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

TestAmerica Job ID: 500-124795-1

## Qualifiers

### General Chemistry

| Qualifier | Qualifier Description |
|---|---|
| B | Compound was found in the blank and sample. |
| 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. |
|---|---|
| ¤ | 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 |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

# QC Association Summary

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

TestAmerica Job ID: 500-124795-1

## GC/MS VOA

### Analysis Batch: 375026

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 500-124795-1 | Effluent | Total/NA | Water | 624 | |
| 500-124795-2 | Influent | Total/NA | Water | 624 | |
| 500-124795-2 - DL | Influent | Total/NA | Water | 624 | |
| 500-124795-3 | Trip Blank | Total/NA | Water | 624 | |
| MB 500-375026/6 | Method Blank | Total/NA | Water | 624 | |
| LCS 500-375026/4 | Lab Control Sample | Total/NA | Water | 624 | |

## General Chemistry

### Prep Batch: 374768

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 500-124795-1 | Effluent | Total/NA | Water | 1664B | |
| 500-124795-2 | Influent | Total/NA | Water | 1664B | |
| MB 500-374768/1-A | Method Blank | Total/NA | Water | 1664B | |
| LCS 500-374768/2-A | Lab Control Sample | Total/NA | Water | 1664B | |
| 500-124795-1 MS | Effluent | Total/NA | Water | 1664B | |

### Analysis Batch: 374777

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 500-124795-1 | Effluent | Total/NA | Water | 1664B | 374768 |
| 500-124795-2 | Influent | Total/NA | Water | 1664B | 374768 |
| MB 500-374768/1-A | Method Blank | Total/NA | Water | 1664B | 374768 |
| LCS 500-374768/2-A | Lab Control Sample | Total/NA | Water | 1664B | 374768 |
| 500-124795-1 MS | Effluent | Total/NA | Water | 1664B | 374768 |

### Analysis Batch: 374966

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 500-124795-1 | Effluent | Total/NA | Water | SM 2540D | |
| 500-124795-2 | Influent | Total/NA | Water | SM 2540D | |
| MB 500-374966/1 | Method Blank | Total/NA | Water | SM 2540D | |
| LCS 500-374966/2 | Lab Control Sample | Total/NA | Water | SM 2540D | |
| 500-124795-1 DU | Effluent | Total/NA | Water | SM 2540D | |

### Analysis Batch: 375267

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 500-124795-1 | Effluent | Total/NA | Water | 300.0 | |
| 500-124795-2 | Influent | Total/NA | Water | 300.0 | |
| MB 500-375267/23 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 500-375267/34 | Lab Control Sample | Total/NA | Water | 300.0 | |

# Surrogate Summary

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

TestAmerica Job ID: 500-124795-1

## 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) |
| 500-124795-1 | Effluent | 97 | 102 | 100 |
| 500-124795-2 | Influent | 101 | 96 | 101 |
| 500-124795-2 - DL | Influent | 98 | 96 | 101 |
| 500-124795-3 | Trip Blank | 97 | 101 | 98 |
| LCS 500-375026/4 | Lab Control Sample | 98 | 97 | 101 |
| MB 500-375026/6 | Method Blank | 98 | 102 | 100 |

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

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

**Lab Sample ID: MB 500-375026/6**
**Matrix: Water**
**Analysis Batch: 375026**

**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 | | | 03/09/17 10:24 | 1 |
| Bromoform | <0.45 | | 1.0 | 0.45 | ug/L | | | 03/09/17 10:24 | 1 |
| Carbon tetrachloride | <0.38 | | 1.0 | 0.38 | ug/L | | | 03/09/17 10:24 | 1 |
| Chloroform | <0.37 | | 2.0 | 0.37 | ug/L | | | 03/09/17 10:24 | 1 |
| cis-1,2-Dichloroethene | <0.41 | | 1.0 | 0.41 | ug/L | | | 03/09/17 10:24 | 1 |
| Dichlorobromomethane | <0.37 | | 1.0 | 0.37 | ug/L | | | 03/09/17 10:24 | 1 |
| 1,2-Dichloroethane | <0.39 | | 1.0 | 0.39 | ug/L | | | 03/09/17 10:24 | 1 |
| 1,1-Dichloroethene | <0.39 | | 1.0 | 0.39 | ug/L | | | 03/09/17 10:24 | 1 |
| Ethylbenzene | <0.18 | | 0.50 | 0.18 | ug/L | | | 03/09/17 10:24 | 1 |
| Methyl bromide | <0.65 | | 2.0 | 0.65 | ug/L | | | 03/09/17 10:24 | 1 |
| Methyl chloride | <0.32 | | 1.0 | 0.32 | ug/L | | | 03/09/17 10:24 | 1 |
| Methyl tert-butyl ether | <0.39 | | 1.0 | 0.39 | ug/L | | | 03/09/17 10:24 | 1 |
| 1,1,2,2-Tetrachloroethane | <0.40 | | 1.0 | 0.40 | ug/L | | | 03/09/17 10:24 | 1 |
| Tetrachloroethene | <0.37 | | 1.0 | 0.37 | ug/L | | | 03/09/17 10:24 | 1 |
| Toluene | <0.15 | | 0.50 | 0.15 | ug/L | | | 03/09/17 10:24 | 1 |
| trans-1,2-Dichloroethene | <0.35 | | 1.0 | 0.35 | ug/L | | | 03/09/17 10:24 | 1 |
| 1,1,1-Trichloroethane | <0.38 | | 1.0 | 0.38 | ug/L | | | 03/09/17 10:24 | 1 |
| 1,1,2-Trichloroethane | <0.35 | | 1.0 | 0.35 | ug/L | | | 03/09/17 10:24 | 1 |
| Trichloroethene | <0.16 | | 0.50 | 0.16 | ug/L | | | 03/09/17 10:24 | 1 |
| Vinyl chloride | <0.20 | | 0.50 | 0.20 | ug/L | | | 03/09/17 10:24 | 1 |
| Xylenes, Total | <0.40 | | 1.0 | 0.40 | ug/L | | | 03/09/17 10:24 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *71 - 120* | | *03/09/17 10:24* | *1* |
| *1,2-Dichloroethane-d4 (Surr)* | *102* | | *71 - 127* | | *03/09/17 10:24* | *1* |
| *Toluene-d8 (Surr)* | *100* | | *75 - 120* | | *03/09/17 10:24* | *1* |

**Lab Sample ID: LCS 500-375026/4**
**Matrix: Water**
**Analysis Batch: 375026**

**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 | 51.4 | | ug/L | | 103 | 37 - 151 |
| Bromoform | 50.0 | 48.6 | | ug/L | | 97 | 45 - 169 |
| Carbon tetrachloride | 50.0 | 53.0 | | ug/L | | 106 | 70 - 140 |
| Chloroform | 50.0 | 53.1 | | ug/L | | 106 | 51 - 138 |
| cis-1,2-Dichloroethene | 50.0 | 51.0 | | ug/L | | 102 | 70 - 130 |
| Dichlorobromomethane | 50.0 | 51.9 | | ug/L | | 104 | 35 - 155 |
| 1,2-Dichloroethane | 50.0 | 51.7 | | ug/L | | 103 | 49 - 155 |
| 1,1-Dichloroethene | 50.0 | 53.4 | | ug/L | | 107 | 10 - 234 |
| Ethylbenzene | 50.0 | 56.7 | | ug/L | | 113 | 37 - 162 |
| Methyl bromide | 50.0 | 31.5 | | ug/L | | 63 | 10 - 242 |
| Methyl chloride | 50.0 | 42.8 | | ug/L | | 86 | 10 - 273 |
| m&p-Xylene | 50.0 | 55.6 | | ug/L | | 111 | |
| o-Xylene | 50.0 | 54.0 | | ug/L | | 108 | |
| 1,1,2,2-Tetrachloroethane | 50.0 | 54.0 | | ug/L | | 108 | 46 - 157 |
| Tetrachloroethene | 50.0 | 57.7 | | ug/L | | 115 | 64 - 148 |
| Toluene | 50.0 | 55.5 | | ug/L | | 111 | 47 - 150 |

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

**Lab Sample ID: LCS 500-375026/4**
**Matrix: Water**
**Analysis Batch: 375026**

**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 | 53.2 | | ug/L | | 106 | 54 - 156 |
| 1,1,1-Trichloroethane | 50.0 | 55.2 | | ug/L | | 110 | 52 - 162 |
| 1,1,2-Trichloroethane | 50.0 | 55.4 | | ug/L | | 111 | 52 - 150 |
| Trichloroethene | 50.0 | 53.7 | | ug/L | | 107 | 71 - 157 |
| Vinyl chloride | 50.0 | 42.7 | | ug/L | | 85 | 10 - 251 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *4-Bromofluorobenzene (Surr)* | *98* | | *71 - 120* |
| *1,2-Dichloroethane-d4 (Surr)* | *97* | | *71 - 127* |
| *Toluene-d8 (Surr)* | *101* | | *75 - 120* |

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

**Lab Sample ID: MB 500-374768/1-A**
**Matrix: Water**
**Analysis Batch: 374777**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 374768**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| HEM (Oil & Grease) | 3.10 | J | 5.0 | 1.3 | mg/L | | 03/08/17 16:00 | 03/08/17 19:05 | 1 |

**Lab Sample ID: LCS 500-374768/2-A**
**Matrix: Water**
**Analysis Batch: 374777**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 374768**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| HEM (Oil & Grease) | 40.0 | 38.40 | | mg/L | | 96 | 78 - 114 |

**Lab Sample ID: 500-124795-1 MS**
**Matrix: Water**
**Analysis Batch: 374777**

**Client Sample ID: Effluent**
**Prep Type: Total/NA**
**Prep Batch: 374768**

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|---|---|
| HEM (Oil & Grease) | 2.7 | J B | 41.2 | 42.64 | | mg/L | | 97 | 78 - 114 |

## Method: 300.0 - Anions, Ion Chromatography

**Lab Sample ID: MB 500-375267/23**
**Matrix: Water**
**Analysis Batch: 375267**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Chloride | <0.076 | | 0.20 | 0.076 | mg/L | | | 03/09/17 16:11 | 1 |

## Method: 300.0 - Anions, Ion Chromatography (Continued)

**Lab Sample ID: LCS 500-375267/34**
**Matrix: Water**
**Analysis Batch: 375267**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Chloride | 3.00 | 2.72 | | mg/L | | 91 | 90 - 110 |

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

**Lab Sample ID: MB 500-374966/1**
**Matrix: Water**
**Analysis Batch: 374966**

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

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <2.5 | | 5.0 | 2.5 | mg/L | | | 03/08/17 14:40 | 1 |

**Lab Sample ID: LCS 500-374966/2**
**Matrix: Water**
**Analysis Batch: 374966**

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

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Total Suspended Solids | 200 | 189 | | mg/L | | 95 | 80 - 120 |

**Lab Sample ID: 500-124795-1 DU**
**Matrix: Water**
**Analysis Batch: 374966**

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

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|
| Total Suspended Solids | <2.5 | | <2.5 | | mg/L | | NC | 5 |

# Lab Chronicle

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

TestAmerica Job ID: 500-124795-1

## Client Sample ID: Effluent

**Lab Sample ID: 500-124795-1**

**Date Collected: 03/07/17 08:45**

**Matrix: Water**

**Date Received: 03/08/17 10:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 624 | | 1 | 375026 | 03/09/17 11:44 | PMF | TAL CHI |
| Total/NA | Prep | 1664B | | | 374768 | 03/08/17 17:03 | ADK | TAL CHI |
| Total/NA | Analysis | 1664B | | 1 | 374777 | 03/08/17 20:00 | ADK | TAL CHI |
| Total/NA | Analysis | 300.0 | | 20 | 375267 | 03/09/17 21:15 | CCK | TAL CHI |
| Total/NA | Analysis | SM 2540D | | 1 | 374966 | | MTB | TAL CHI |
| | | | | | (Start) | 03/08/17 14:52 | | |
| | | | | | (End) | 03/08/17 14:54 | | |

## Client Sample ID: Influent

**Lab Sample ID: 500-124795-2**

**Date Collected: 03/07/17 09:05**

**Matrix: Water**

**Date Received: 03/08/17 10:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 624 | | 2 | 375026 | 03/09/17 12:11 | PMF | TAL CHI |
| Total/NA | Analysis | 624 | DL | 20 | 375026 | 03/09/17 12:38 | PMF | TAL CHI |
| Total/NA | Prep | 1664B | | | 374768 | 03/08/17 17:13 | ADK | TAL CHI |
| Total/NA | Analysis | 1664B | | 1 | 374777 | 03/08/17 20:08 | ADK | TAL CHI |
| Total/NA | Analysis | 300.0 | | 20 | 375267 | 03/09/17 21:28 | CCK | TAL CHI |
| Total/NA | Analysis | SM 2540D | | 1 | 374966 | | MTB | TAL CHI |
| | | | | | (Start) | 03/08/17 14:55 | | |
| | | | | | (End) | 03/08/17 14:56 | | |

## Client Sample ID: Trip Blank

**Lab Sample ID: 500-124795-3**

**Date Collected: 03/07/17 00:00**

**Matrix: Water**

**Date Received: 03/08/17 10:30**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Analysis | 624 | | 1 | 375026 | 03/09/17 11:18 | PMF | TAL CHI |

**Laboratory References:**

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

# Certification Summary

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

TestAmerica Job ID: 500-124795-1

## Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| Wisconsin | State Program | 5 | 999580010 | 08-31-17 |

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

## Chain of Custody Record

Lab Job #: 500-124795
Chain of Custody Number: 72001
Page 1 of 1
Temperature °C of Cooler: 1.1

| Report To (optional) | Bill To (optional) |
|---|---|
| Contact: Alina Satkoski (+) | Contact: Accounts Payable |
| Company: Andy Stehn | Company: MKC |
| Address: | Address: 201 Waubesa St, |
| Address: | Address: Madison WI |
| Phone: | Phone: |
| Fax: | Fax: |
| E-Mail: | PO#/Reference# 106905 |

Client: MKC
Client Project #:
Project Name: GETS/SVE
Project Location/State: Madison WI
Lab Project #:
Sampler: S. Roelke
Lab PM:

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

| Lab ID | MS/MSD | Sample ID | Sampling Date | Sampling Time | # of Containers | Matrix | Preservative | 1 | 8 | 8 | 2 | | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Parameter | VOC's | PAH | BOD/TSS/Chloride | Oil & Grease | | | | | | |
| 1 | | Effluent | 3/7/17 | 845 | 9 | W | | X | X | X | X | | | | | | For VOCs + PAH see Attached Analyte List |
| 2 | | Influent | 3/7/17 | 905 | 9 | W | | X | X | X | X | | | | | | |
| 3 | | Trip Blank | 2/21/17 | - | 1 | W | | X | | | | | | | | | |

Turnaround Time Required (Business Days)
___ 1 Day X 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
[ ] Return to Client [X] Disposal by Lab [ ] Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

| Relinquished By | Company | Date | Time | Received By | Company | Date | Time |
|---|---|---|---|---|---|---|---|
| [signature] | RC | 3/7/17 | 1500 | [signature] | TA | 03/08/17 | 1030 |
| Relinquished By | Company | Date | Time | Received By | Company | Date | Time |
| Relinquished By | Company | Date | Time | Received By | Company | Date | Time |

Lab Courier
Shipped ✓
Hand Delivered

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

Client Comments

Lab Comments:

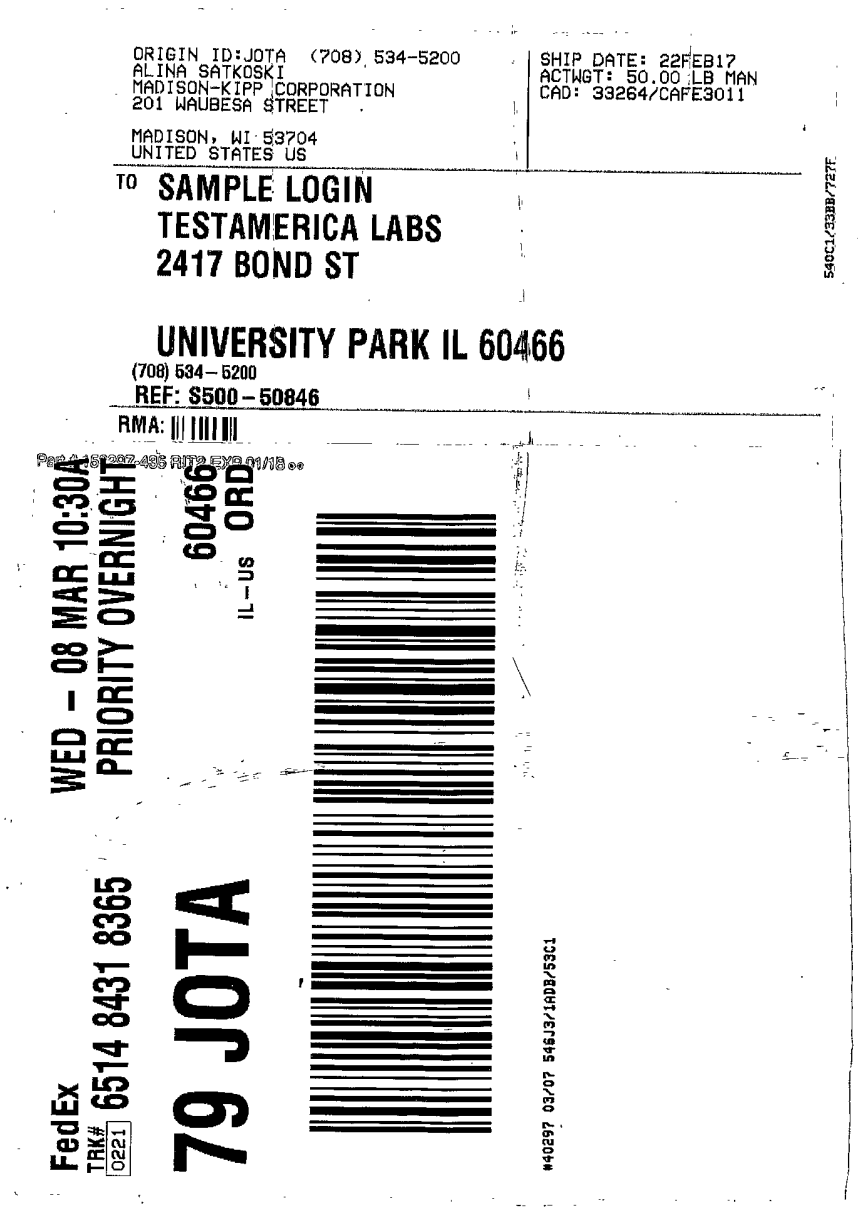
500-124795 COC



TAL-4124 (0901)

3/10/2017

500-124795 Waybill



# Login Sample Receipt Checklist

Client: Madison-Kipp Corporation

Job Number: 500-124795-1

**Login Number: 124795**
**List Number: 1**
**Creator: Kelsey, Shawn M**

**List Source: TestAmerica Chicago**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.1 |
| 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. | True | |

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: 500-124795-2
Client Project/Site: MadisonKipp - GETS/SVE

For:
Madison-Kipp Corporation
201 Waubesa Street
Madison, Wisconsin 53704

Attn: Alina Satkoski

Therese Hargraves

*Authorized for release by:*
*3/13/2017 5:12:16 PM*
Therese Hargraves, Project Manager I
therese.hargraves@testamericainc.com

Designee for

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

# Table of Contents

## Job ID: 500-124795-2

### Laboratory: TestAmerica Chicago

**Narrative**

**Job Narrative**
**500-124795-2**

**Comments**
No additional comments.

**Receipt**
The samples were received on 3/8/2017 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.1º C.

**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 490-413023 and analytical batch 490-412980.

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

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

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

# Detection Summary

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

TestAmerica Job ID: 500-124795-2

## Client Sample ID: Effluent — Lab Sample ID: 500-124795-1

No Detections.

## Client Sample ID: Influent — Lab Sample ID: 500-124795-2

No Detections.

This Detection Summary does not include radiochemical test results.

# Method Summary

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

TestAmerica Job ID: 500-124795-2

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

**Protocol References:**

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater",

**Laboratory References:**

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

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

# Sample Summary

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

TestAmerica Job ID: 500-124795-2

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---|---|---|---|---|
| 500-124795-1 | Effluent | Water | 03/07/17 08:45 | 03/08/17 10:30 |
| 500-124795-2 | Influent | Water | 03/07/17 09:05 | 03/08/17 10:30 |

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

TestAmerica Job ID: 500-124795-2

**Client Sample ID: Effluent**
**Date Collected: 03/07/17 08:45**
**Date Received: 03/08/17 10:30**

**Lab Sample ID: 500-124795-1**
**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 | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |
| Benzo[a]pyrene | <0.024 | | 0.048 | 0.024 | ug/L | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |
| Benzo[b]fluoranthene | <0.024 | | 0.048 | 0.024 | ug/L | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |
| Benzo[g,h,i]perylene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |
| Benzo[k]fluoranthene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |
| Chrysene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |
| Dibenz(a,h)anthracene | <0.024 | | 0.048 | 0.024 | ug/L | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |
| Fluoranthene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.024 | | 0.048 | 0.024 | ug/L | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |
| Naphthalene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |
| Phenanthrene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |
| Pyrene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 16:53 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Nitrobenzene-d5* | *54* | | *27 - 120* | *03/09/17 19:10* | *03/10/17 16:53* | *1* |
| *Terphenyl-d14* | *72* | | *13 - 120* | *03/09/17 19:10* | *03/10/17 16:53* | *1* |
| *2-Fluorobiphenyl (Surr)* | *48* | | *10 - 120* | *03/09/17 19:10* | *03/10/17 16:53* | *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 | | | 03/08/17 17:07 | 1 |

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

TestAmerica Job ID: 500-124795-2

**Client Sample ID: Influent**
**Date Collected: 03/07/17 09:05**
**Date Received: 03/08/17 10:30**

**Lab Sample ID: 500-124795-2**
**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 | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |
| Benzo[a]pyrene | <0.024 | | 0.048 | 0.024 | ug/L | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |
| Benzo[b]fluoranthene | <0.024 | | 0.048 | 0.024 | ug/L | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |
| Benzo[g,h,i]perylene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |
| Benzo[k]fluoranthene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |
| Chrysene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |
| Dibenz(a,h)anthracene | <0.024 | | 0.048 | 0.024 | ug/L | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |
| Fluoranthene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.024 | | 0.048 | 0.024 | ug/L | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |
| Naphthalene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |
| Phenanthrene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |
| Pyrene | <0.048 | | 0.096 | 0.048 | ug/L | | 03/09/17 19:10 | 03/10/17 17:14 | 1 |

| *Surrogate* | *%Recovery* | *Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Nitrobenzene-d5* | *60* | | *27 - 120* | *03/09/17 19:10* | *03/10/17 17:14* | *1* |
| *Terphenyl-d14* | *73* | | *13 - 120* | *03/09/17 19:10* | *03/10/17 17:14* | *1* |
| *2-Fluorobiphenyl (Surr)* | *49* | | *10 - 120* | *03/09/17 19:10* | *03/10/17 17:14* | *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 | | | 03/08/17 17:00 | 1 |

## Glossary

| 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 | 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 |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |

# QC Association Summary

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

TestAmerica Job ID: 500-124795-2

## GC/MS Semi VOA

### Analysis Batch: 412980

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| MB 490-413023/1-A | Method Blank | Total/NA | Water | 625 SIM | 413023 |
| LCS 490-413023/2-A | Lab Control Sample | Total/NA | Water | 625 SIM | 413023 |
| LCSD 490-413023/3-A | Lab Control Sample Dup | Total/NA | Water | 625 SIM | 413023 |

### Prep Batch: 413023

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 500-124795-1 | Effluent | Total/NA | Water | 625 | |
| 500-124795-2 | Influent | Total/NA | Water | 625 | |
| MB 490-413023/1-A | Method Blank | Total/NA | Water | 625 | |
| LCS 490-413023/2-A | Lab Control Sample | Total/NA | Water | 625 | |
| LCSD 490-413023/3-A | Lab Control Sample Dup | Total/NA | Water | 625 | |

### Analysis Batch: 413541

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 500-124795-1 | Effluent | Total/NA | Water | 625 SIM | 413023 |
| 500-124795-2 | Influent | Total/NA | Water | 625 SIM | 413023 |

## General Chemistry

### Analysis Batch: 374967

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---|---|---|---|---|---|
| 500-124795-1 | Effluent | Total/NA | Water | SM 5210B | |
| 500-124795-2 | Influent | Total/NA | Water | SM 5210B | |
| USB 500-374967/1 | Method Blank | Total/NA | Water | SM 5210B | |
| LCS 500-374967/2 | Lab Control Sample | Total/NA | Water | SM 5210B | |

# Surrogate Summary

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

TestAmerica Job ID: 500-124795-2

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

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

| | | Percent Surrogate Recovery (Acceptance Limits) | | |
|---|---|---|---|---|
| | | NBZ | TPH | FBP |
| Lab Sample ID | Client Sample ID | (27-120) | (13-120) | (10-120) |
| 500-124795-1 | Effluent | 54 | 72 | 48 |
| 500-124795-2 | Influent | 60 | 73 | 49 |
| LCS 490-413023/2-A | Lab Control Sample | 53 | 74 | 64 |
| LCSD 490-413023/3-A | Lab Control Sample Dup | 47 | 65 | 58 |
| MB 490-413023/1-A | Method Blank | 63 | 70 | 62 |

**Surrogate Legend**

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

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

**Lab Sample ID: MB 490-413023/1-A**
**Matrix: Water**
**Analysis Batch: 412980**

**Client Sample ID: Method Blank**
**Prep Type: Total/NA**
**Prep Batch: 413023**

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Benzo[a]anthracene | <0.025 | | 0.050 | 0.025 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |
| Benzo[a]pyrene | <0.025 | | 0.050 | 0.025 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |
| Benzo[b]fluoranthene | <0.025 | | 0.050 | 0.025 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |
| Benzo[g,h,i]perylene | <0.050 | | 0.10 | 0.050 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |
| Benzo[k]fluoranthene | <0.050 | | 0.10 | 0.050 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |
| Chrysene | <0.050 | | 0.10 | 0.050 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |
| Dibenz(a,h)anthracene | <0.025 | | 0.050 | 0.025 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |
| Fluoranthene | <0.050 | | 0.10 | 0.050 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |
| Indeno[1,2,3-cd]pyrene | <0.025 | | 0.050 | 0.025 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |
| Naphthalene | <0.050 | | 0.10 | 0.050 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |
| Phenanthrene | <0.050 | | 0.10 | 0.050 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |
| Pyrene | <0.050 | | 0.10 | 0.050 | ug/L | | 03/08/17 13:18 | 03/08/17 22:01 | 1 |

| *Surrogate* | *MB %Recovery* | *MB Qualifier* | *Limits* | *Prepared* | *Analyzed* | *Dil Fac* |
|---|---|---|---|---|---|---|
| *Nitrobenzene-d5* | *63* | | *27 - 120* | *03/08/17 13:18* | *03/08/17 22:01* | *1* |
| *Terphenyl-d14* | *70* | | *13 - 120* | *03/08/17 13:18* | *03/08/17 22:01* | *1* |
| *2-Fluorobiphenyl (Surr)* | *62* | | *10 - 120* | *03/08/17 13:18* | *03/08/17 22:01* | *1* |

**Lab Sample ID: LCS 490-413023/2-A**
**Matrix: Water**
**Analysis Batch: 412980**

**Client Sample ID: Lab Control Sample**
**Prep Type: Total/NA**
**Prep Batch: 413023**

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|---|---|---|---|---|---|---|
| Benzo[a]anthracene | 4.00 | 2.79 | | ug/L | | 70 | 33 - 143 |
| Benzo[a]pyrene | 4.00 | 2.66 | | ug/L | | 66 | 17 - 163 |
| Benzo[b]fluoranthene | 4.00 | 2.72 | | ug/L | | 68 | 24 - 159 |
| Benzo[g,h,i]perylene | 4.00 | 2.85 | | ug/L | | 71 | 10 - 219 |
| Benzo[k]fluoranthene | 4.00 | 2.74 | | ug/L | | 69 | 11 - 162 |
| Chrysene | 4.00 | 2.92 | | ug/L | | 73 | 17 - 168 |
| Dibenz(a,h)anthracene | 4.00 | 2.76 | | ug/L | | 69 | 10 - 227 |
| Fluoranthene | 4.00 | 2.65 | | ug/L | | 66 | 26 - 137 |
| Indeno[1,2,3-cd]pyrene | 4.00 | 2.63 | | ug/L | | 66 | 10 - 171 |
| Naphthalene | 4.00 | 2.67 | | ug/L | | 67 | 21 - 133 |
| Phenanthrene | 4.00 | 2.90 | | ug/L | | 73 | 54 - 120 |
| Pyrene | 4.00 | 2.93 | | ug/L | | 73 | 52 - 115 |

| *Surrogate* | *LCS %Recovery* | *LCS Qualifier* | *Limits* |
|---|---|---|---|
| *Nitrobenzene-d5* | *53* | | *27 - 120* |
| *Terphenyl-d14* | *74* | | *13 - 120* |
| *2-Fluorobiphenyl (Surr)* | *64* | | *10 - 120* |

**Lab Sample ID: LCSD 490-413023/3-A**
**Matrix: Water**
**Analysis Batch: 412980**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 413023**

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|
| Benzo[a]anthracene | 4.00 | 2.47 | | ug/L | | 62 | 33 - 143 | 12 | 30 |

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

**Lab Sample ID: LCSD 490-413023/3-A**
**Matrix: Water**
**Analysis Batch: 412980**

**Client Sample ID: Lab Control Sample Dup**
**Prep Type: Total/NA**
**Prep Batch: 413023**

| Analyte | | | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo[a]pyrene | | | 4.00 | 2.40 | | ug/L | | 60 | 17 - 163 | 10 | 30 |
| Benzo[b]fluoranthene | | | 4.00 | 2.60 | | ug/L | | 65 | 24 - 159 | 5 | 30 |
| Benzo[g,h,i]perylene | | | 4.00 | 2.59 | | ug/L | | 65 | 10 - 219 | 9 | 30 |
| Benzo[k]fluoranthene | | | 4.00 | 2.42 | | ug/L | | 61 | 11 - 162 | 12 | 30 |
| Chrysene | | | 4.00 | 2.69 | | ug/L | | 67 | 17 - 168 | 8 | 30 |
| Dibenz(a,h)anthracene | | | 4.00 | 2.50 | | ug/L | | 63 | 10 - 227 | 10 | 30 |
| Fluoranthene | | | 4.00 | 2.42 | | ug/L | | 60 | 26 - 137 | 9 | 30 |
| Indeno[1,2,3-cd]pyrene | | | 4.00 | 2.39 | | ug/L | | 60 | 10 - 171 | 10 | 30 |
| Naphthalene | | | 4.00 | 2.50 | | ug/L | | 63 | 21 - 133 | 7 | 30 |
| Phenanthrene | | | 4.00 | 2.71 | | ug/L | | 68 | 54 - 120 | 7 | 30 |
| Pyrene | | | 4.00 | 2.63 | | ug/L | | 66 | 52 - 115 | 11 | 30 |

| *Surrogate* | *LCSD %Recovery* | *LCSD Qualifier* | *Limits* |
|---|---|---|---|
| *Nitrobenzene-d5* | *47* | | *27 - 120* |
| *Terphenyl-d14* | *65* | | *13 - 120* |
| *2-Fluorobiphenyl (Surr)* | *58* | | *10 - 120* |

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

**Lab Sample ID: USB 500-374967/1**
**Matrix: Water**
**Analysis Batch: 374967**

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

| Analyte | USB Result | USB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | <2.0 | | 2.0 | 2.0 | mg/L | | | 03/08/17 15:56 | 1 |

**Lab Sample ID: LCS 500-374967/2**
**Matrix: Water**
**Analysis Batch: 374967**

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

| Analyte | | | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Biochemical Oxygen Demand | | | 198 | 178 | | mg/L | | 90 | 85 - 115 | | |

# Lab Chronicle

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

TestAmerica Job ID: 500-124795-2

## Client Sample ID: Effluent
**Date Collected: 03/07/17 08:45**
**Date Received: 03/08/17 10:30**

**Lab Sample ID: 500-124795-1**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 625 | | | 413023 | 03/09/17 19:10 | SAT | TAL NSH |
| Total/NA | Analysis | 625 SIM | | 1 | 413541 | 03/10/17 16:53 | RP | TAL NSH |
| Total/NA | Analysis | SM 5210B | | 1 | 374967 | | MAN | TAL CHI |
| | | | | | (Start) | 03/08/17 17:07 | | |
| | | | | | (End) | 03/08/17 17:14 | | |

## Client Sample ID: Influent
**Date Collected: 03/07/17 09:05**
**Date Received: 03/08/17 10:30**

**Lab Sample ID: 500-124795-2**
**Matrix: Water**

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared or Analyzed | Analyst | Lab |
|---|---|---|---|---|---|---|---|---|
| Total/NA | Prep | 625 | | | 413023 | 03/09/17 19:10 | SAT | TAL NSH |
| Total/NA | Analysis | 625 SIM | | 1 | 413541 | 03/10/17 17:14 | RP | TAL NSH |
| Total/NA | Analysis | SM 5210B | | 1 | 374967 | | MAN | TAL CHI |
| | | | | | (Start) | 03/08/17 17:00 | | |
| | | | | | (End) | 03/08/17 17:07 | | |

**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

# Certification Summary

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

TestAmerica Job ID: 500-124795-2

## Laboratory: TestAmerica Chicago

The certifications listed below are applicable to this report.

| Authority | Program | EPA Region | Certification ID | Expiration Date |
|---|---|---|---|---|
| Wisconsin | State Program | 5 | 999580010 | 08-31-17 |

## Laboratory: TestAmerica Nashville

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

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

* Certification renewal pending - certification considered valid.

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

## Chain of Custody Record

Lab Job #: 500-124795
Chain of Custody Number: 72001
Page 1 of 1
Temperature °C of Cooler: 1.1

| Report To (optional) | | Bill To (optional) | |
|---|---|---|---|
| Contact: | Alina Satkoski (+) | Contact: | Accounts Payable |
| Company: | Andy Stehn | Company: | MKC |
| Address: | | Address: | 201 Waubesa St, |
| Address: | | Address: | Madison WI |
| Phone: | | Phone: | n/a |
| Fax: | | Fax: | |
| E-Mail: | | PO#/Reference# | 106985 |

| Client | MKC | Client Project # | |
|---|---|---|---|
| Project Name | GETS/SVE | | |
| Project Location/State | Madison WI | Lab Project # | |
| Sampler | S. Roelke | Lab PM | |

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

| Lab ID | MS/MSD | Sample ID | Sampling Date | Sampling Time | # of Containers | Matrix | Preservative | 1 | 8 | 8 | 2 | | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Parameter | VOC's | PAH | Bod/TSS/ Chloride | Oil & Grease | | | | | | |
| 1 | | Effluent | 3/7/17 | 845 | 9 | W | | X | X | X | X | | | | | | For VOCs + PAH see Attached Analyte List |
| 2 | | Influent | 3/7/17 | 905 | 9 | W | | X | X | X | X | | | | | | |
| 3 | | Trip Blank | 2/21/17 | - | 1 | W | | X | | | | | | | | | |

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
[ ] Return to Client [X] Disposal by Lab [ ] Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

| Relinquished By | Company | Date | Time | Received By | Company | Date | Time |
|---|---|---|---|---|---|---|---|
| | RC | 3/7/17 | 1500 | | TA | 03/08/17 | 1030 |
| Relinquished By | Company | Date | Time | Received By | Company | Date | Time |
| Relinquished By | Company | Date | Time | Received By | Company | Date | Time |

Lab Courier [ ]
Shipped [✓]
Hand Delivered [ ]

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

Client Comments

Lab Comments:

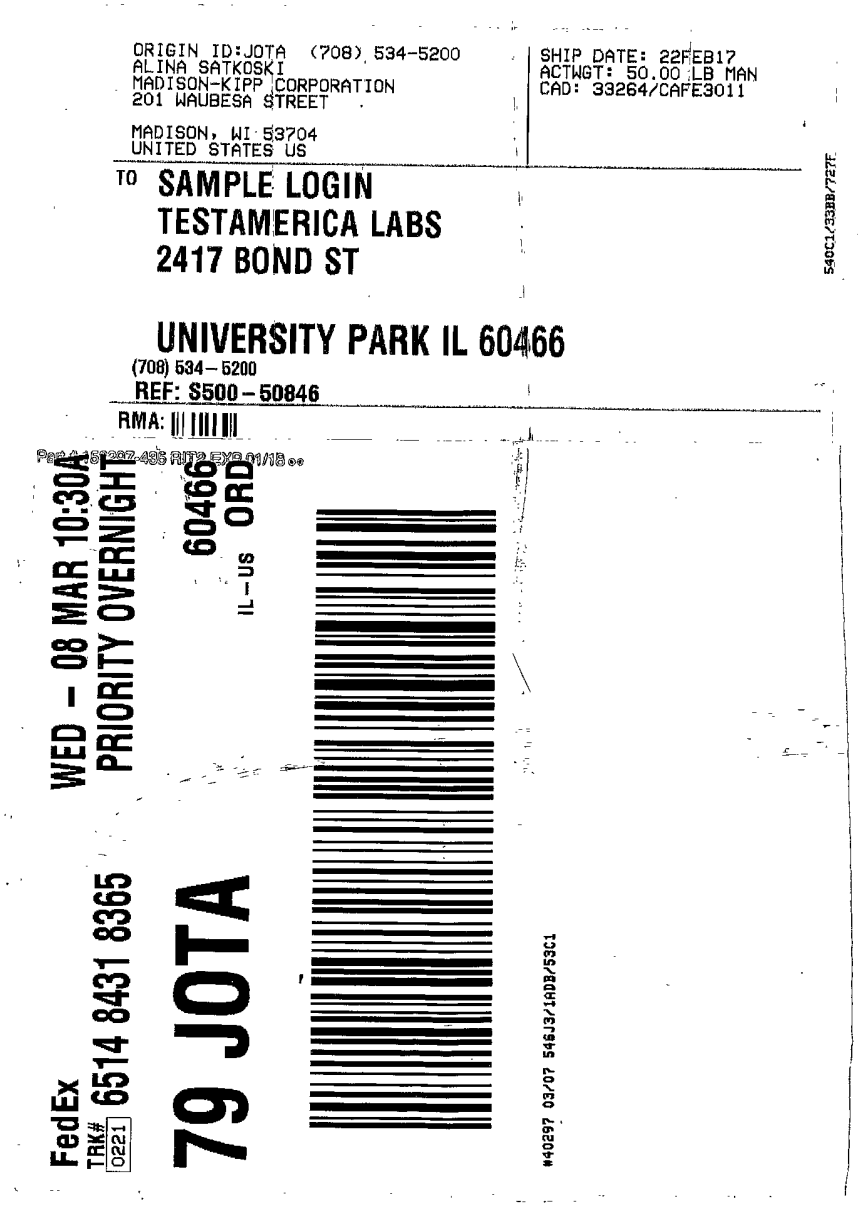
500-124795 COC





3/13/2017

500-124795 Waybill



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Nashville, TN

# COOLER RECEIPT FORM

500-124795 Chain of Custody

Cooler Received/Opened On 03-09-2017 @ 09:35

Time Samples Removed From Cooler 1529 Time Samples Placed In Storage 1717 (2 Hour Window)

1. Tracking # 3088 (last 4 digits, FedEx) Courier: FedEx

IR Gun ID 97310166 pH Strip Lot NA Chlorine Strip Lot NA

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

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) +

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) RM

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) RM

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) RM

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

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

BIS = Broken in shipment
Cooler Receipt Form.doc

LF-1
End of Form

Revised 12/15/15

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

# Chain of Custody Record

Loc: 500
124795

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

| Client Information (Sub Contract Lab) | Sampler: | Lab PM: Fredrick, Sandie J | | COC No: 500-84647.1 |
|---|---|---|---|---|
| Client Contact: Shipping/Receiving | Phone: | E-Mail: sandie.fredrick@testamericainc.com | State of Origin: Wisconsin | Page: Page 1 of 1 |
| Company: TestAmerica Laboratories, Inc | | Accreditations Required (See note): State Program - Wisconsin | | Job #: 500-124795-2 |
| Address: 2960 Foster Creighton Drive, , | Due Date Requested: 3/13/2017 | | | |
| City: Nashville | TAT Requested (days): | | | |
| State, Zip: TN, 37204 | | | | |
| Phone: 615-726-0177(Tel) 615-726-3404(Fax) | PO #: | | | |
| Email: | WO #: | | | |
| Project Name: MadisonKipp - GETS/SVE | Project #: 50009145 | | | |
| Site: | SSOW#: | | | |

**Analysis Requested**

**Preservation Codes:**

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
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)

Other:

| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | Perform MS/MSD (Yes or No) | 625_SIM/625_Prep_LVI (MOD) Single compound | Total Number of containers | Special Instructions/Note: |
|---|---|---|---|---|---|---|---|---|---|
| | | | Preservation Code: | | | | | | |
| Effluent (500-124795-1) | 3/7/17 | 08:45 Central | | Water | | | X | 2 | |
| Influent (500-124795-2) | 3/7/17 | 09:05 Central | | Water | | | X | 2 | |

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

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

| Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: |
|---|---|---|---|

| | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
|---|---|---|---|---|---|---|
| 1 | | 03/08/17 @ 1500 | TA | | 3/9/17 9:35 | TAL |
| 2 | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |
| 3 | Relinquished by: | Date/Time: | Company | Received by: | Date/Time: | Company |

| Custody Seals Intact: ∆ Yes ∆ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: |
|---|---|---|

# Login Sample Receipt Checklist

Client: Madison-Kipp Corporation

Job Number: 500-124795-2

**Login Number: 124795**
**List Number: 1**
**Creator: Kelsey, Shawn M**

**List Source: TestAmerica Chicago**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | 1.1 |
| 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. | True | |

# Login Sample Receipt Checklist

Client: Madison-Kipp Corporation

Job Number: 500-124795-2

**Login Number: 124795**
**List Number: 2**
**Creator: Ngo, Phiet**

**List Source: TestAmerica Nashville**
**List Creation: 03/09/17 05:14 PM**

| Question | Answer | Comment |
|---|---|---|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | N/A | |
| 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 | |
| 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. | N/A | |
| 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 | |