

## TRANSMITTAL LETTER

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Enclosed is a hard copy of the Operations, Monitoring, and Maintenance Semi-Annual Report for the period of July 1, 2017 – December 31, 2017 for the Madison-Kipp Corporation.

Please contact me at 608-826-3665 if you have any questions.

Sincerely,



Andrew Stehn  
Project Engineer

cc: Mark Sheppard – Madison-Kipp Corporation (electronic)



# Operations, Monitoring, and Maintenance Semi-Annual Report

July 1, 2017 – December 31, 2017

*Madison-Kipp Corporation  
Groundwater, Soil Vapor, and Treatment Systems  
Facility ID No. 113125320, BRRTS No. 02-13-558625*

**February 2018**

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# Section 1

## Introduction

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TRC Environmental Corp. (TRC), on behalf of Madison-Kipp Corp. (MKC), is reporting on the operation, monitoring, and maintenance (OM&M) of the groundwater, soil vapor extraction and treatment system operations at MKC's facility at 201 Waubesa Street, Madison, Wisconsin (Site).

### 1.1 Site Description

The Site is located in the southwest quarter of Section 5, Township 7 North, Range 10 East in Dane County, Wisconsin. The Site Location Map is shown on Figure 1. The Site is approximately 7.5 acres in area, with a 130,000 square foot building occupying much of the Site. The building has a basement and a second floor over part of the footprint. There is a second 6,000 square foot building in the northeast corner of the property, housing the Groundwater Extraction Treatment System (GETS) and storage. The remainder of the Site is predominately paved in asphalt for driveways and parking lots. The Site is zoned M-1 (industrial/manufacturing), and is currently operated as a metal die casting facility.

The Site is surrounded by a mix of commercial, industrial, and residential land use. The Site is bounded by the Capital City Bike Trail to the north, residences to the east, Atwood Avenue to the south, and Waubesa Street to the west. The Goodman Community Center is located to the north across the Capital City Bike Trail. Residences are located adjacent to the east and west sides of the Site. Commercial properties are located to the south.

The Site is located on the northeastern end of the Madison Isthmus, which is a narrow strip of land separating Lake Mendota and Lake Monona. The Site is approximately 1,500 feet north of Lake Monona and approximately 6,800 feet east of Lake Mendota. These two lakes are the hydrologic boundaries for the Site. The topography of the Site is flat, with an elevation ranging from approximately 870 to 880 feet above mean sea level. The Site and surrounding areas are serviced by municipal water supply and sewer systems.

### 1.2 Site Background

Environmental investigation and remediation activities have been on-going at the Site since 1994. Investigation activities included defining the extent of tetrachloroethene (PCE) and, beginning in 2012, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs) and Resource Conservation and Recovery Act metals (RCRA Metals). A complete summary of the project background, including the on-site and off-site investigations is included in the 2015

Annual Report submitted to the Wisconsin Department of Natural Resources (WDNR) on April 12, 2016 by Arcadis U.S., Inc. (Arcadis, 2016) and in previous reports referenced therein.

The Site active remediation systems include a Soil Vapor Extraction System (SVE) and a Groundwater Extraction Treatment System (GETS). The SVE system began permanent continuous operation in May 2013 and has been operating since then. In 2015, Arcadis completed the installation of the GETS at the Site, and conducted testing from July 2015 start-up through December 2015. During the start-up period, the system was operated at its 45 gallon per minute (gpm) capacity, but was occasionally offline for system optimization and equipment repairs/modification. The GETS has operated full-time since January 2016.

### 1.3 Offsite Sub-slab Depressurization System Inspections

MKC currently completes annual inspections of off-site sub-slab depressurization systems installed at five properties along Marquette Street. Annual inspections were completed at the five properties during the 2017 calendar year.

### 1.4 Purpose and Scope

On-going OM&M activities are completed to monitor the status of soil gas and groundwater conditions at the Site and to ensure the treatment systems are operating as designed and in compliance with regulatory standards. OM&M activities include: GETS operation and monthly Discharge Monitoring Reports, SVE operation, semi-annual Site groundwater monitoring, and annual Site soil gas monitoring. The purpose of this Semi-Annual Report is to provide documentation of OM&M activities performed during July 1 through December 31, 2017.

This Semi-Annual Report describes:

- GETS OM&M,
- SVE OM&M,
- Groundwater Monitoring,
- Site Soil Gas Monitoring, and
- Conclusions and Recommendations.

# Section 2

## GETS OM&M

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MKC is operating a GETS system for extraction and treatment of PCE-impacted groundwater. The system was installed in 2015 and is described in detail in Groundwater Extraction and Treatment System (GETS) Construction Documentation Report (Arcadis, 2015b).

### 2.1 System Operation

Over the period of July 1 through December 31, 2017, the GETS was generally operated at 45 gpm. The extraction and transfer pumps for the GETS contain variable speed frequency drives that fluctuate based on liquid levels in the equalization and mixing tank along with the air stripper liquid level. At times the flow will fluctuate above and below the design rate over a few days' time, however, the overall weekly to monthly flow rate is generally consistent.

In addition, the flow rate was adjusted occasionally to 40 gpm while repairs were made to the SVE system. The vapors extracted from the SVE system are combined with vapors generated from the air stripper for the GETS operation and treated by two 2,000 pound activated carbon vessels installed in series. To ensure proper operation of the air stripper, a booster blower is installed downstream of the stripper to overcome back pressure from the SVE system. At times when the SVE system shuts down, the water level in the air stripper increases due to lack of back pressure downstream of the blower. The booster blower during this time can pull water from the top portion of the air stripper into the vapor phase carbon vessels.

Intermittently during the reporting period while the SVE system was down, the extraction pump was operated at 40 gpm to keep water from being extracted from the upper portion of the air stripper. Once the SVE system was repaired the flow was adjusted back to 45 gpm. In total during this reporting period, the GETS was operated at 40 gpm for approximately 12 days.

The GETS system was occasionally shut down due to routine maintenance and repairs. During this reporting period the following GETS repairs and maintenance tasks were completed:

- the peroxide metering pump diaphragm was replaced to improve operation;
- the sequestrate metering pump diaphragm was replaced to improve operation;
- minor shut downs occurred due to system faults related to air bubbles in the peroxide feed line, the pump was primed and the system was restarted; and
- the air stripper unit was cleaned.

The location of the extraction well (GWE-1) for the GETS is identified on Figure 2. MKC personnel complete weekly monitoring of the GETS and an operations summary table is included in Table 1.

A total of approximately 9,836,627 gallons of groundwater were treated between July 1, 2017 and December 31, 2017. During this reporting period approximately 158 pounds of VOCs were removed. From the start of the system through the end of December 2017, approximately 660 pounds of VOCs have been removed through operation of the GETS. A trend plot depicting the cumulative VOCs removed over time since the start-up of the GETS system is included in Trend Plot A.1 of Appendix A. In addition, the trend plot showing PCE concentration verses time for the groundwater extraction well (GWE-1) is included in Trend Plot A.2 of Appendix A. Additional system operation information is noted in the attached Remediation Site Operation, Maintenance, Monitoring, and Optimization Report Form 4400-194 in Appendix B.

## 2.2 Monthly Discharge Monitoring Reports

MKC completes monthly performance monitoring and submits monthly Discharge Monitoring Reports (DMRs) required for the system operation and discharge permit (Wisconsin Pollution Discharge Elimination System (WPDES) Permit number WI-0046566-6).

For performance monitoring and permit compliance, MKC personnel collect samples of the extracted groundwater (GETS influent) and treated groundwater (GETS effluent) on a monthly basis. Table 2 provides the influent and effluent laboratory analytical results for this reporting period. The sampling frequency and monitoring parameters collected were completed as approved by the WDNR in June 2017. Parameters included monthly monitoring of volatile organic compounds along with visual monitoring for sodium permanganate neutralization and quarterly monitoring of oil and grease, biological oxygen demand, total suspended solids, chloride, and select polycyclic aromatic hydrocarbons.

The DMRs for July through December 2017 were submitted to the WDNR on August 3, 2017, September 7, 2017, October 6, 2017, November 6, 2017, December 6, 2017, and January 15, 2018 with their respective laboratory analytical reports. A copy of the last submittal from the December 2017 monitoring event is included in Appendix C.

During the December 2017 monitoring event, one exceedance for the PAH Group 10 was reported. Upon review of the data the WDNR was notified within 24 hours of the exceedance. The detected PAH parameter was phenanthrene and was reported in the effluent at a concentration of 0.41 µg/L. This parameter has only been detected in the influent sample on two occasions and in the effluent on one occasion. These detections were observed in July and August of 2015 (system start up), and all three detections were reported with 'J' and/or 'B' qualifiers and were reported at

concentrations below the permit limitation. Based on this information, no significant changes to the GETS operation, and a discussion with the WDNR, MKC is completing further monitoring of PAHs to ensure the GETS is operating in compliance with the WPDES permit.

## 2.3 Monthly Vapor Sampling

The SVE system and GETS produce gases which are combined and treated with granular activated carbon (GAC) for removal of vapor-phase volatile organic compounds (VOCs). The GAC influent and GAC effluent gas are sampled on a monthly basis for performance and compliance monitoring. An analytical summary table with influent and effluent results are included in Table 3 and the laboratory analytical reports are included in Appendix D. The influent and effluent concentration of total VOCs compared to time, is provided in Trend Plot A.3 in Appendix A. An emission rate was calculated based on the effluent analytical results and combined system flow rate; and results were compared to NR 445 and NR 406. No regulatory standards for effluent emissions from the combined systems were exceeded. Tables 4 through 8 include a summary of the monthly emission rates for total VOCs, PCE, trichloroethene (TCE), cis-1,2, dichloroethene (cis-1,2-DCE), and vinyl chloride (VC) for this reporting period.

TRC continues to assess the influent and effluent concentrations of VOCs to evaluate the GAC component of the treatment system. The evaluation thus far has concluded that the activated carbon is approaching the end of its life as PCE continues to be reduced but breakdown products (e.g. TCE, cis-1,2-DCE, and VC) are not being reduced as effectively, although they still remain below applicable standards. During this reporting period's evaluation, loading rates for total VOCs, PCE, TCE, cis-1,2-DCE, and VC were calculated based on the influent results (pre-carbon treatment). Currently, with the GETS and SVE systems in operation together, the gas concentrations measured pre-carbon treatment are below the established NR 445 and NR 406 regulatory standards. A summary of these calculations are included in Table 9 through 13.

In addition, during this reporting period between September and December 2017, the gases generated from the GETS only were also monitored to determine what contribution the GETS has to the overall combined influent results. Overall, the monitoring to date shows that gases generated from the air stripper system only, assuming the same overall system air flow rate, do not generate an emissions rate, resulting in an exceedances of the NR 445 and 406 emission standards for total VOCs, PCE, TCE, cis-1,2-DCE, or VC. Table 14 includes a summary of the gases generated from the only air stripper system (pre-treatment). The GETS gas concentration will be monitored on occasion during the next reporting period and if emissions from the GETS only stay consistent, removal of the GAC component may be recommended but will also be dependent on the SVE system component as discussed in Section 3.2.



# Section 3

## SVE OM&M

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MKC is operating an SVE system for extraction and treatment of shallow soil vapor on the east-northeast portion of the Site. The system began permanent operation in May 2013 and has been in operation since.

### 3.1 System Operation

The SVE system was operated on a continuous basis during this reporting period, with the exception of occasional maintenance shut-downs to complete general maintenance and repairs. At times during the reporting period the transfer pump for the system vapor liquid separator required repairs to ensure continued operation of the SVE system. Repairs to the system were made between July 1 and 6, and December 15 and 21, 2017. Weekly system operation readings are obtained by MKC personnel and a summary of the operational parameters are included in Table 15. VOCs were monitored in the gas removed from each soil vapor extraction well on a monthly basis using a Photoionization Detector (PID). Readings for extraction wells SVE-1, SVE-2, and SVE 6 through SVE-9 were generally reported below or around one parts per million (ppm) during this reporting period. Extraction wells SVE 3 though SVE 5 showed higher concentrations with readings ranging above 2 ppm to 9 ppm.

### 3.2 Monthly Vapor Sampling

The treatment and sampling of the gases removed from the SVE system are combined with the GETS and treated as described in Section 2.3. However, since the start of the GETS, the SVE influent (consisting of combined gas extracted from nine SVE wells) has been monitored on five occasions (September and December of 2016, and March, May, and September of 2017) to determine the removal rates of VOCs by the SVE system. This was completed as an initial step to potentially phase out the SVE system from site operations. A concentration versus time trend plot for the combined influent is included in Appendix E for reference.

In review of the historical data along with the recent monitoring through May of 2017, there appeared to be episodic valleys that occur followed by increases in total VOC concentrations. An additional sample was collected in September 2017 to determine if this increase is still occurring at the Site. Results indicated that the total VOC concentrations being removed from the entire system remain low. The concentrations of VOCs from the SVE system have fluctuated since 2013 but over the last few years concentrations have remained low with removal rates ranging between 0.0002 to 0.002 pounds per hour of removal. This removal rate

may be biased slightly high as the total VOC summation includes the concentrations of all detected parameters and half the detection limit for all parameters reported below the detection limit. Based on the data collected between September 2016 and May 2017 the removal rate of the system ranged between 1.8 to 21 pounds per year but on average would equate to approximately 7 pounds per year as very low concentrations have been observed more frequently. Results from the September 2017 monitoring, confirmed the approximate removal of 7 lbs per year. A table summarizing the SVE combined influent concentrations and loading rates between 2016 and 2017 is included in Appendix E (Table 1).

The soil gas monitoring completed on an annual basis, which is further discussed in Section 5 in conjunction with the SVE removal rates, continues to be reviewed to determine if phasing out the SVE system would have an effect on soil gas concentrations migrating at the site. Overall, results collected from the vapor probes currently in the annual monitoring program indicate that PCE, TCE, and cis-1,2 DCE are present at the site. However, VP-102 is the only location where residential exceedences for deep soil gas have been reported in recent years. No exceedences of chlorinated VOCs for non-residential deep soil gas have been reported. Soil vapor extraction well SVE-2 is located in close proximity to VP-102 (approximately 15 feet – Appendix E, Figure E-1). PID readings collected on a monthly basis from SVE-2 have not indicated significant VOC concentrations over the last few years and generally have been observed at concentrations less than one part per million (ppm).

Between September and December 2017, gas samples were collected from vapor extraction well SVE-2 to determine the effectiveness of the SVE system in proximity to VP-102. Concentrations in the SVE-2 samples indicated that CVOCs are being removed from the soil gas within the proximity of VP-102 but based on the concentrations observed, removal rates remain minimal overall (1.2 lb/yr total VOCs compared to the overall system 6.9 lb/yr total VOCs). A summary table of the data collected from extraction well header SVE-2 is included in Appendix E (Table E-2).

Additional system operation information is noted in the attached Remediation Site Operation, Maintenance, Monitoring, and Optimization Report Form 4400-194 in Appendix B. Laboratory analytical results for vapor sampling completed during this reporting period are included in Appendix D.

# Section 4

## Groundwater Monitoring

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The 2017 groundwater monitoring program at the Site, which included water level gauging and sampling, was conducted as described in the Proposed Modification to Performance Monitoring Plan (TRC, 2017) and as summarized in Table 16.

The Site contains 42 monitoring wells, 4 multi-port wells, and one operational extraction well (GWE-1). The wells are installed in unconsolidated units and/or bedrock and their locations are shown on Figure 2. The Site's near-surface geology consists of two unconsolidated units consisting of fill material and glacially-derived deposits, which overlie three bedrock formations (Lone Rock, Wonewoc, and Eau Claire). Further information on the site geology is included in the 2014 Annual Report (Arcadis, 2015a) and in previous reports referenced therein.

### 4.1 Groundwater Flow Conditions

Water levels at 42 Site monitoring wells and 20 multi-port well intervals were gauged on October 2, 2017. The groundwater elevations are summarized in Table 17, and the October 2017 water table map and potentiometric surface maps are shown on Figures 3 through 7. Overall, the groundwater elevations and the direction of groundwater flow in October 2017 are generally consistent with historical observations. Groundwater flow at the water table converges toward the site from the north and west (Figure 3). Groundwater flow in the Upper Lone Rock formation is generally to the north-northeast (Figure 4). The extraction well (GWE-1) has a local influence on flow within the Lower Lone Rock, Upper Wonewoc, and Lower Wonewoc formations, causing flow to generally converge toward the extraction well (Figures 5 through 7).

### 4.2 Monitoring Well Network and Sampling Program

Groundwater sampling was conducted in wells within the unconsolidated units, Lone Rock formation, and the Wonewoc formation for geochemical field parameters and chemical analyses for VOCs. These monitoring wells were sampled to evaluate the effectiveness of the GETS operation—which was installed to remove VOCs from the groundwater and provide hydraulic containment to minimize off-site migration—and to evaluate the overall site-wide water quality. In total, 25 site monitoring wells and 18 multi-port well intervals were monitored as summarized in Table 16.

- Monitoring wells monitored within the unconsolidated units or just below included: MW-1, MW-3S, MW-6S, MW-22S, and MW-23S.

- Monitoring wells/multiports monitored within the Lone Rock formation included: MW-2D, MW-3D, MW-3D2, MW-4D2, MW-5S, MW-5D, MW-6D, MW-9D, MW-9D2, MP-13 [port 5 (81-85), port 6 (67-71), and port 7 (44-48)], MW-22D, and MW-23D.
- Monitoring wells/multiports monitored within the Wonewoc Formation and into the Upper portion of the Eau Claire formation included: MW-3D3, MW-5D2, MW-5D3, MW-17, MW-25D, MW-25D2, MW-27D, MW-27D2, MP-13 [port 1 (163-167), port 2 (135-139), port 3 (121-125), and port 4 (102-106)], MP-14 [port 1 (170-178), port 2 (135-140), port 3 (100-105)], MP-15 [port 1 (177-187), port 2 (142-146), port 3 (120-125), port 4 (100-105), and port 5 (88-92)], and MP-16 [port 1 (175-179), port 2 (140-144), and port 3 (106-116)].
- As part of the monitoring program, GWE-1 was sampled in accordance with the monthly permit compliance.

In addition, ten of the site wells were monitored for polychlorinated biphenyls (PCBs), total suspended solids (TSS), total dissolved solids (TDS), and geochemical field parameters per the request of MKC. The ten wells sampled are located in the unconsolidated or Lone Rock unit/formation and included: MW-4S, MW-4D, MW-6S, MW-11S, MW-22S, MW-22D, MW-23S, MW-23D, MW-24, and MW-28.

### 4.3 Groundwater Sampling Results

The results from the groundwater sampling to date are included in Table 18, and the laboratory analytical reports for the October 2017 monitoring event are included in Appendix F. Table 19 includes the 2018 groundwater monitoring plan.

Multiple NR 140 preventative action limit (PAL) and enforcement standard (ES) exceedances for VOCs were reported. The laboratory analytical results from the October 2017 monitoring event are generally consistent with historical results. The overall concentration of PCE over time was reviewed for each Site well sampled during the second half of 2017, and a brief description for each unit/formation is included in the sub-sections below. Appendix A includes a trend plot (A.4) indicating PCE concentrations over time for multi-port MP-13 Port 2 (135-139) which contained the highest concentration of PCE during the October 2017 monitoring event.

Isoconcentration maps for PCE for the Water Table (Unconsolidated), Upper Lone Rock, Lower Lone Rock, Upper Wonewoc, and Lower Wonewoc are shown in Figures 8 through 12, respectively. The contours are based on the October 2017 monitoring event.

Figure 13 includes two cross-sections (A-A' and B-B') displaying the vertical PCE concentration extents based on the October 2017 groundwater monitoring. Figure 2 shows the location of the wells and the cross-sections.

#### 4.3.1 Water Table (Unconsolidated) VOC Monitoring Results

Results for wells monitored within the unconsolidated unit or just below indicate that PCE concentrations generally show decreasing trends over time or are comparable to the historical results. Concentrations of PCE were reported above the ES for monitoring wells MW-3S, MW-22S, and MW-23S, above the PAL for monitoring well MW-1, and non-detect for monitoring well MW-6S.

#### 4.3.2 Lone Rock Formation VOC Monitoring Results

Results for wells monitored within the Lone Rock formation indicate that PCE concentrations generally show decreasing trends over time or are comparable to the historical results. Concentrations of PCE were reported above the ES for monitoring wells MW-2D, MW-3D, MW-5S, MW-5D, MW-6D, MW-9D2, MP-13 [port 5 (81-85), port 6 (67-71), and port 7 (44-48)], MW-22D, and MW-23D and above the PAL for monitoring well MW-3D2 and MW-4D2.

#### 4.3.3 Wonewoc Formation VOC Monitoring Results

Results for wells monitored within the Wonewoc Rock formation indicate that PCE concentrations generally show decreasing trends over time or are comparable to the historical results. Concentrations of PCE were reported above the ES for monitoring wells MW-5D2, MW-17, MW-27D2, MP-13 [port 1 (163-167), port 2 (135-139), port 3 (121-125), and port 4 (102-106)], MP-14 [port 1 (170-178), port 2 (135-140)], MP-15 [port 1 (177-187), port 2 (142-146), port 3 (120-125), port 4 (100-105), and port 5 (88-92)], and MP-16 [port 2 (140-144), and port 3 (106-116)], above the PAL for monitoring wells MW-27D, and MP-16 [port 1 (175-179)], and below the PAL for monitoring wells MW-25D, MW-25D2, and MP-14 [port 3 (100-105)].

#### 4.3.4 Upper Eau Claire Formation VOC Monitoring Results

MW-3D3 and MW-5D3 are screened in the lower portion of the Wonewoc and upper portion of the Eau Claire formations. Results for these wells report no PCE concentrations above the NR 140 ES or PAL, and are consistent with historical results.

#### 4.3.5 PCB Monitoring Results

Seven of the ten monitoring wells monitored for PCBs reported no detections above the method detection limits and therefore no exceedance of the NR 140 ES or PAL was reported. MW-22S, MW-22D and MW-23S reported detections above the NR 140 ES. However, based on the location of these wells, concentrations are attributed to well installation through soils with high PCB concentrations and are not an indication of PCBs migrating in groundwater at the Site. Based on the Stipulation and Order for Judgement entered on November 27, 2017 between the State of Wisconsin and MKC, MW-22S, MW-22D, MW-23S, and MW-23D will be abandoned and a new well nest (MW-29S and MW-29D) will be installed for future PCB monitoring.



# Section 5

## Soil Gas Monitoring

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The 2017 annual soil gas monitoring program at the Site was conducted as described in the 2015 Annual Report (Arcadis, 2016). However, VP-126 was removed from the monitoring program in 2017 as approved by the WDNR on July 17, 2017.

### 5.1 Monitoring Network and Sampling Program

On July 25, 2017, TRC collected soil gas samples from six of the site vapor probes. The sampled probes included: VP-1N, VP-1S, VP-2N, VP-6, VP-102, and VP-210. In addition, one duplicate sample was collected from VP-102. The locations of the wells are shown on Figure E-1 of Appendix E.

Soil gas samples were collected from the six probes over an approximate 30 minute interval using 6-liter laboratory provided Summa® canisters. Each sample was analyzed for PCE, TCE, cis-1, 2 DCE, trans-1, 2-dichloroethene (trans-1, 2 DCE), and VC using Environmental Protection Agency (EPA) Method Toxic Organic (TO)-15. Each sample was collected by TRC and analyzed by Eurofins Air Toxics Inc. of Folsom, California. A summary table of the soil gas analytical results through July 2017 and the laboratory analytical report from the 2017 monitoring event are included in Table 20 and Appendix G, respectively.

### 5.2 Soil Gas Sampling Results

Overall, in comparison to historical data, soil gas monitoring results at the site show:

- The soil gas sampled from the vapor probes VP-1N and -2N contained no detections of PCE, TCE, cis-1, 2 DCE, trans-1, 2 DCE, or VC above the method detection limits.
- The soil gas sampled from the vapor probe VP-1S and VP-210 contained detections of PCE at concentrations below the Wisconsin residential deep soil gas vapor action level.
- The soil gas sampled at VP-6 contained PCE and TCE at concentrations below the Wisconsin non-residential deep soil gas vapor action level. The vapor monitoring point is compared to the non-residential vapor action level based on its location.
- The soil gas sampled at VP-102 contained PCE and TCE at levels above the Wisconsin residential deep soil gas vapor action level. PCE was reported at a concentration of 820 parts per billion by volume (ppbv) and TCE was reported at a concentration of 75 ppbv.

# Section 6

## Conclusions and Recommendations

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### 6.1 Conclusions

The OM&M activities for the SVE and GETS were completed as required at the Site during this reporting period. Both systems operated continuously throughout this reporting period, with the exception of repairs and routine maintenance as noted.

Site groundwater monitoring was completed in October 2017. As additional monitoring events are completed, further data and concentration verses time analyses will be completed to continue to evaluate the effectiveness of the GETS. As of December 2017, the GETS has been in operation for approximately two and half years. The GETS is influencing local groundwater flow within the Lower Lone Rock, Upper Wonewoc, and Lower Wonewoc formations.

Overall groundwater monitoring indicates that the groundwater quality at the Site is consistent with historical results, and groundwater quality is improving proximate to the groundwater extraction well. Particularly, groundwater quality is improving in the Lower Lone Rock formation at MW-3D2 and MW-5D. The influence of the GETS operation is seen on the PCE concentration trends at wells adjacent GWE-1 and as shown on Figures 10 -13. Groundwater monitoring will continue and results will be evaluated to determine the effectiveness of the GETS and if there are impacts to groundwater not being addressed by the remediation system.

### 6.2 Recommendations

Based on the results of the July through December 2017 OM&M, no immediate actions are required and OM&M is planned to continue in 2018. Work planned for 2018 includes the following:

- GETS operation;
- SVE system operation (at least first half of 2018, see discussion following);
- Compliance monitoring;
- Groundwater monitoring (as outlined in Table 19);
- Soil gas monitoring;
- Annual inspections of the off-site sub-slab depressurization systems; and
- Semi-annual reporting.

The following Site OM&M items continue to be reviewed and potential modifications are as described:

- Soil gas recovered from the SVE system was monitored periodically during the second half of 2017. Based on results obtained and initial evaluation of the system, TRC recommends continued evaluation of the SVE system be completed for the first part of the 2018 calendar year. Select SVE gas monitoring is recommended to evaluate the SVE system effectiveness and performance. Periodic monitoring of the SVE influent gas from the combined header (pre-treatment) and select individual extraction wells is recommended for the first half of 2018. Following evaluation select modifications and/or operational requirements will be recommended.
- TRC recommends that the influent gas (pre-carbon treatment) from the GETS (not combined with the SVE) continue to be monitored periodically for the first half of the 2018 calendar year. This monitoring will be completed in conjunction with the combined (SVE and GETS) influent and effluent monitoring currently being completed on a monthly basis. This activity is being completed to determine the need of the carbon adsorption system for the treatment of gas from the GETS.

## Section 7

# References

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Arcadis U.S., Inc. 2015a. *2014 Annual Report, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin*. March 2015.

Arcadis U.S., Inc. 2015b. *Groundwater Extraction and Treatment System (GETS) Construction Documentation Report, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin*. November 19, 2015.

Arcadis U.S., Inc. 2016. *2015 Annual Report, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin*. April 12, 2016.

TRC Environmental Corporation. 2017. *Proposed Modification to Performance Monitoring Plan, 201 Waubesa Street, Madison, Wisconsin*. March 7, 2017.

Table 1  
 Summary of Groundwater Extraction System Operation and Mass Removal  
 Madison Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	GROUNDWATER DISCHARGED THIS PERIOD (gal)	CUMULATIVE GROUNDWATER DISCHARGED (gal) <sup>(1)</sup>	AVERAGE DISCHARGE FLOW RATE <sup>(2),(5)</sup> (gpd)	AVERAGE DISCHARGE FLOW RATE <sup>(2),(5)</sup> (gpm)	INFLUENT SAMPLE RESULTS <sup>(3)</sup>		EFFLUENT SAMPLE RESULTS <sup>(3)</sup>		CUMULATIVE VOCs REMOVED <sup>(1),(4)</sup> (pounds)	COMMENTS
					VOCs (µg/L)	VOCs (µg/L)	VOCs (µg/L)	VOCs (µg/L)		
6/26/2017	6/26/2017 10:56	388,950	36,381,627	64,698	45	NS	NS	500		
7/11/2017	7/11/2017 9:30	--	--	--	--	1859	65.7	500	Meter reading recorded is not consistent with previous collected data, flow calculations not completed.	
7/17/2017	7/17/2017 13:20	978,848	37,360,475	46,391	32	NS	NS	510	Between July 1, and July 24, 2017, the GETS had periodic shut downs due to the peroxide injection system.	
7/24/2017	7/24/2017 11:00	270,585	37,631,060	39,199	27	NS	NS	520		
8/1/2017	8/1/2017 7:30	--	--	--	--	NS	NS	520	Meter reading recorded not consistent with previous collected data, flow calculations not completed.	
8/7/2017	8/7/2017 7:15	612,130	38,243,190	44,217	31	1992	60.9	530	The GETS had periodic shut downs due to the peroxide injection system	
8/15/2017	8/15/2017 11:45	--	--	--	--	NS	NS	530	Readings were taken from two different displays causing inaccurate flow rate calculation.	
8/25/2017	8/25/2017 8:15	1,094,085	39,337,275	60,642	42	NS	NS	550	The GETS had periodic shut downs due to the peroxide injection system	
8/29/2017	8/29/2017 8:15	121,545	39,458,820	30,386	21	NS	NS	550	The GETS had periodic shut downs due to the peroxide injection system	
9/6/2017	9/6/2017 7:45	502,025	39,960,845	62,917	44	NS	NS	560		
9/11/2017	9/11/2017 8:30	281,460	40,242,305	55,942	39	1788	50.1	560		
9/21/2017	9/21/2017 9:21	618,151	40,860,456	61,597	43	NS	NS	570		
9/27/2017	9/27/2017 8:38	386,297	41,246,753	64,705	45	NS	NS	580		
10/5/2017	10/5/2017 7:30	--	--	--	--	2130	48.2	580	Readings were taken from two different displays causing inaccurate flow rate calculation.	
10/9/2017	10/9/2017 11:21	783,861	42,030,614	64,711	45	NS	NS	590		
10/17/2017	10/17/2017 10:28	515,425	42,546,039	64,726	45	NS	NS	600		
10/23/2017	10/23/2017 8:14	382,172	42,928,211	64,699	45	NS	NS	600		
10/31/2017	10/31/2017 7:50	516,832	43,445,043	64,739	45	NS	NS	610		
11/6/2017	11/6/2017 10:38	354,464	43,799,507	57,951	40	NS	NS	620	GETS was operated at 40 gpm between November 1 and 6, 2017.	
11/14/2017	11/14/2017 12:23	132,291	43,931,798	16,387	11	2423.2	37.4	620	The GETS was shutdown between November 7 and November 12 for maintenance.	
11/21/2017	11/21/2017 9:20	309,483	44,241,281	45,029	31	NS	NS	630	The GETS flow rates was operated at 40 gpm for a period of time and shutdown due to air bubbles in the peroxide pump line.	
11/28/2017	11/28/2017 10:30	--	--	--	--	NS	NS	630	Readings were taken from two different displays causing inaccurate flow rate calculation.	
12/8/2017	12/8/2017 10:30	648,700	44,889,981	64,870	45	1813	48.7	640		
12/14/2017	12/14/2017 14:41	370,035	45,260,016	59,931	42	NS	NS	640		
12/18/2017	12/18/2017 12:13	--	--	--	--	NS	NS	640	GETS was operated at 40 gpm between December 15 and 21, 2017. Readings were taken from two different displays causing inaccurate flow rate calculation.	
12/28/2017	12/28/2017 10:34	1,132,139	46,392,155	58,218	40	NS	NS	660	GETS was operated at 40 gpm between December 15 and 21, 2017.	

**Notes:**

The total gallons treated and VOCs removed by the GETS prior to January 2016 is further discussed in the 2015 Annual Report (ARCADIS, April, 2016).  
 The GETS was shutdown between January 1 and 14, 2016 for groundwater extraction pump repairs. The system was restarted on January 14, 2016.  
 -- = Field reading recorded is not consistent with previous collected data and not used for calculations or system issues did not allow a reading to be obtained.  
 VOCs = Volatile Organic Compounds  
 WDNR = Wisconsin Department of Natural Resources  
 WPDES = Wisconsin Pollution Discharge Elimination System  
 DMR = Discharge Monitoring Report  
 GETS - Groundwater Extraction and Treatment System

Updated By: B. Wachholz 1/30/2018  
 Checked By: A. Stehn 2/4/2018

**Footnotes:**

1. The cumulative groundwater treated through December 31, 2015 was 4,683,600 gallons and cumulative VOCs removed through December 31, 2015 was 61 pounds, as reported in the 2015 Annual Report (ARCADIS, April 2016).
2. The GETS standard operation is 45 gpm. The average discharge flow rate calculations noted take into account system down time and are based on volume of groundwater extracted and time elapsed between monitoring events.
3. Analytical laboratory reports were submitted to the WDNR each month during this reporting period with the WPDES DMR submittal (Permit WI-0046566-6).
4. Compliance sampling is completed on a monthly basis. For weeks where samples were not collected the previously obtained sampling data was used for cumulative VOCs calculations.
5. The extraction and transfer pumps for the GETS contain variable speed frequency drives that fluctuate based on liquid levels in the equalization and mixing tank along with the air stripper liquid level. At times the flow will fluctuate and readings collected over a few days time may reflect bias results for the overall system operation.

Table 2  
GETS WPDES Compliance Sample Results  
Madison-Kipp Corporation Site  
201 Waubesa Street, Madison, Wisconsin

PARAMETER <sup>(3)</sup>	PERMIT DISCHARGE LIMITS	UNIT	LOCATION SAMPLE DATE																										
			INFLUENT 1/18/2016	EFFLUENT 1/18/2016	INFLUENT 2/8/2016	EFFLUENT 2/8/2016	INFLUENT 3/7/2016	EFFLUENT 3/7/2016	INFLUENT 4/6/2016	EFFLUENT 4/6/2016	INFLUENT 5/4/2016	EFFLUENT 5/4/2016	INFLUENT 6/7/2016	EFFLUENT 6/7/2016	INFLUENT 7/20/2016	EFFLUENT 7/20/2016	INFLUENT 8/8/2016	EFFLUENT 8/8/2016	INFLUENT 9/9/2016	EFFLUENT 9/9/2016	INFLUENT 10/10/2016	EFFLUENT 10/10/2016	INFLUENT 11/7/2016	EFFLUENT 11/7/2016	INFLUENT 12/7/2016	EFFLUENT 12/7/2016	INFLUENT 1/12/2017	EFFLUENT 1/12/2017	
<b>Miscellaneous</b>																													
Oil & Grease	10	mg/L	1.7 JB	2.5 JB	0.68 JB	<0.57	1.6 J B	0.87 J B F1	1.3 J	0.86 J	1.0 J B	1.1 J B	<1.5	<1.4	1.8 J	1.6 J F1	2.4 J B	1.5 J F1 B	<1.4	<1.4	<1.4	<1.4	2.4 J	<1.4	<1.4	<1.4	2.6 J B	3.1 J B	
Chloride	395	mg/L	110	140	100	110	100	100	100	100	100	100	100	98	100	70	110	110	110	110	110 B	110 B	120	120	110 B	100 B	110 B	110 B	
Total Suspended Solids	40	mg/L	<1.6	<1.6	<1.6	<1.6	2.0 J	<1.6	<1.6	5.0	<1.6	<1.6	<2.5	5.5	2.5 J	2.5 J	19	<2.5	<2.5	4.0 J	2.5 J	15	5.0	3.0 J	<2.5	<2.5	<2.5	<2.5	
Biological Oxygen Demand	20	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
<b>VOCs</b>																													
1,1,1-Trichloroethane	50	µg/L	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<0.76	<0.38	<1.9	<0.38	<0.76	<0.38	<1.9	<0.38	<1.9	<0.38	<0.76	<0.38	<0.76	<0.38	<0.76	<0.38	
1,1,2,2-Tetrachloroethane	50	µg/L	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<0.80	<0.40	<2.0	<0.40	<0.80	<0.40	<2.0	<0.40	<2.0	<0.40	<0.80	<0.40	<0.80	<0.40	<0.80	<0.40	
1,1,2-Trichloroethane	50	µg/L	<1.8	<0.35	<1.8	<0.35	<1.8	<0.35	<1.8	<0.35	<1.8	<0.35	<0.70	<0.35	<1.8	<0.35	<0.70	<0.35	<1.8	<0.35	<1.8	<0.35	<0.70	<0.35	<0.70	<0.35	<0.70	<0.35	
1,1-Dichloroethene	50	µg/L	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<0.78	<0.39	<2.0	<0.39	<0.78	<0.39	<2.0	<0.39	<2.0	<0.39	<0.78	<0.39	<0.78	<0.39	<0.78	<0.39	
1,2-Dichloroethane	180	µg/L	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<0.78	<0.39	<2.0	<0.39	<0.78	<0.39	<2.0	<0.39	<2.0	<0.39	<0.78	<0.39	<0.78	<0.39	<0.78	<0.39	
Benzene	50	µg/L	<0.73	<0.15	<0.73	<0.15	<0.73	<0.15	<0.73	<0.15	<0.73	<0.15	<0.29	<0.15	<0.73	<0.15	<0.29	<0.15	<0.73	<0.15	<0.73	<0.15	<0.29	<0.15	<0.29	<0.15	<0.29	<0.15	
Bromodichloromethane	120	µg/L	<1.9	<0.37	<1.9	<0.37	<1.9	<0.37	<1.9	<0.37	<1.9	<0.37	<0.74	<0.37	<1.9	<0.37	<0.74	<0.37	<1.9	<0.37	<1.9	<0.37	<0.74	<0.37	<0.74	<0.37	<0.74	<0.37	
Bromoform	120	µg/L	<2.2	<0.45	<2.2	<0.45	<2.2	<0.45	<2.2	<0.45	<2.2	<0.45	<0.89	<0.45	<2.2	<0.45	<0.89	<0.45	<2.2	<0.45	<2.2	<0.45	<0.89	<0.45	<0.89	<0.45	<0.89	<0.45	
Bromomethane	NE	µg/L	<3.2	<0.65	<3.2	<0.65	<3.2	<0.65	<3.2	<0.65	<3.2	<0.65	<1.3	<0.65	<3.2	<0.65	<1.3	<0.65	<3.2	<0.65	<3.2	<0.65	<1.3	<0.65	<1.3	<0.65	<1.3	<0.65	
Carbon Tetrachloride	150	µg/L	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<0.77	<0.38	<1.9	<0.38	<0.77	<0.38	<1.9	<0.38	<1.9	<0.38	<0.77	<0.38	<0.77	<0.38	<0.77	<0.38	
cis-1,2-Dichloroethene	NE	µg/L	14	18	<2.0	19	<2.0	19	<2.0	18	<2.0	17	<0.82	16	<2.0	18	<0.82	19	<2.0	19	<2.0	17	<2.0	22	<0.82	18	<0.82	14	
Chloromethane	NE	µg/L	<1.6	<0.32	<1.6	<0.32	<1.6	<0.32	<1.6	<0.32	<1.6	<0.32	<0.64	<0.32	<1.6	<0.32	<0.64	<0.32	<1.6	<0.32	<1.6	<0.32	<0.64	<0.32	<0.64	<0.32	<0.64	<0.32	
Ethylbenzene	NE	µg/L	<0.92	<0.18	<0.92	<0.18	<0.92	<0.18	<0.92	<0.18	<0.92	<0.18	<0.37	<0.18	<0.92	<0.18	<0.37	<0.18	<0.92	<0.18	<0.92	<0.18	<0.37	<0.18	<0.37	<0.18	<0.37	<0.18	
Tetrachloroethene	50	µg/L	2500	46	2300	43	2500	40	2000	34	1700	38	1500	36	1600	37	1200	35	1600	39	1600	32	1600	35	1700	28	1300	21	
Toluene	NE	µg/L	<0.76	<0.15	<0.76	<0.15	<0.76	<0.15	<0.76	<0.15	<0.76	<0.15	<0.30	<0.15	<0.76	<0.15	<0.30	<0.15	<0.76	<0.15	<0.76	<0.15	0.93	<0.30	<0.15	<0.30	<0.15		
Total Xylenes	NE	µg/L	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	0.61 J	<2.0	<0.40	<0.80	<0.40	<2.0	<0.40	<0.80	<0.40	<2.0	<0.40	<2.0	<0.40	<0.80	<0.40	<0.80	<0.40	<0.80	<0.40	
trans-1,2-Dichloroethene	NE	µg/L	<1.7	<0.35	<1.7	<0.35	<1.7	<0.35	<1.7	<0.35	<1.7	<0.35	<0.70	<0.35	<1.7	<0.35	<0.70	<0.35	<1.7	<0.35	<1.7	<0.35	<0.70	<0.35	<0.70	<0.35	<0.70	<0.35	
Trichloroethene	50	µg/L	41	5.7	<0.82	6.4	<0.82	6.3	<0.82	5.6	<0.82	5.9	<0.33	5.4	<0.82	8.3	<0.33	7.2	<0.82	9.2	<0.82	5.8	<0.82	8.8	<0.33	6.5	0.68 J	5.5	
Vinyl chloride	10	µg/L	<1.0	<0.20	<1.0	<0.20	<1.0	<0.20	<1.0	<0.20	<1.0	<0.20	<0.41	<0.20	<1.0	<0.20	<0.41	<0.20	<1.0	<0.20	<1.0	<0.20	<0.41	<0.20	<0.41	<0.20	<0.41	<0.20	
Total BTEX <sup>(1)</sup>	750	µg/L	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	0.61 J	<2.0	<0.40	<0.80	<0.40	<2.0	<0.40	<0.80	<0.40	<2.0	<0.40	<2.0	<0.40	0.93	<0.80	<0.40	<0.80	<0.40		
Total VOCs (includes BTEX)	NE	µg/L	2555	69.7	2300	68.4	2500	65.3	2000	58.21	1700	60.9	1500	57.4	1600	63.3	1200	61.2	1600	67.2	1600	54.8	1600	66.7	1700	52.5	1300.68	40.5	
<b>PAHs</b>																													
Benzo(a)anthracene	NE	µg/L	<0.024	<0.026	<0.024	<0.024	<0.024	<0.024	<0.024	<0.023	<0.025 *	<0.023 *	<0.027	<0.026 *	<0.025 *	<0.024 *	<0.024 *	<0.025 *	<0.024	<0.024	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.024	<0.025
Benzo(a)pyrene	0.1	µg/L	<0.024	<0.026	<0.024	<0.024	<0.024	<0.024	<0.024	<0.023	<0.025	<0.023	<0.027	<0.026	<0.025	<0.024	<0.024	<0.025	<0.024	<0.024	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.024	<0.025
Benzo(b)fluoranthene	NE	µg/L	<0.024	<0.026	<0.024	<0.024	<0.024	<0.024	<0.024	<0.023	<0.025	<0.023	<0.027	<0.026	<0.025	<0.024	<0.024	<0.025	<0.024	<0.024	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.024	<0.025	
Benzo(g,h,i)perylene	NE	µg/L	<0.048	<0.052	<0.048	<0.048	<0.048	<0.048	<0.047	<0.046	<0.050	<0.046	<0.054	<0.052	<0.050	<0.048	<0.048	<0.050	<0.048	<0.048	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.048	<0.050	
Benzo(k)fluoranthene	NE	µg/L	<0.048	<0.052	<0.048	<0.048	<0.048	<0.048	<0.047	<0.046	<0.050	<0.046	<0.054	<0.052	<0.050	<0.048	<0.048	<0.050	<0.048	<0.048	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.048	<0.050	
Chrysene	NE	µg/L	<0.048	<0.052	<0.048	<0.048	<0.048	<0.048	<0.047	<0.046	<0.050 *	<0.046 *	<0.054	<0.052 *	<0.050 *	<0.048 *	<0.048 *	<0.050 *	<0.048	<0.048	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.048	<0.050	
Dibenzo(a,h)anthracene	NE	µg/L	<0.024	<0.026	<0.024	<0.024	<0.024	<0.024	<0.024	<0.023	<0.025	<0.023	<0.027	<0.026	<0.025	<0.024	<0.024	<0.025	<0.024	<0.024	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.024	<0.025	
Fluoranthene	NE	µg/L	<0.048	<0.052	<0.048	<0.048	<0.048	<0.048	<0.047	<0.046	<0.050	<0.046	<0.054	<0.052	<0.050	<0.048	<0.048	<0.050	<0.048	<0.048	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.048	<0.050	
Indeno(1,2,3-cd)pyrene	NE	µg/L	<0.024	<0.026	<0.024	<0.024	<0.024	<0.024	<0.024	<0.023	<0.025	<0.023	<0.027	<0.026	<0.025	<0.024	<0.024	<0.025	<0.024	<0.024	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.024	<0.025	
Naphthalene	70	µg/L	<0.048	<0.052	<0.048	<0.048	&lt																						



Table 2  
GETS WPDES Compliance Sample Results  
Madison-Kipp Corporation Site  
201 Waubesa Street, Madison, Wisconsin

PARAMETER <sup>(5)</sup>	PERMIT DISCHARGE LIMITS	UNIT	LOCATION SAMPLE DATE																							
			INFLUENT 2/8/2017	EFFLUENT 2/8/2017	INFLUENT 3/7/2017	EFFLUENT 3/7/2017	INFLUENT 4/6/2017	EFFLUENT 4/6/2017	INFLUENT 5/10/2017	EFFLUENT 5/10/2017	INFLUENT 6/7/2017	EFFLUENT 6/7/2017	INFLUENT 7/11/2017	EFFLUENT 7/11/2017	INFLUENT 8/15/2017	EFFLUENT 8/15/2017	INFLUENT 9/11/2017	EFFLUENT 9/11/2017	INFLUENT 10/5/2017	EFFLUENT 10/5/2017	INFLUENT 11/13/2017	EFFLUENT 11/13/2017	INFLUENT 12/8/2017	EFFLUENT 12/8/2017		
<b>Miscellaneous</b>																										
Oil & Grease	10	mg/L	3.0 J B	2.3 J B	2.2 J B	2.7 J B	<1.5	3.4 J B	--	--	3.0 J	2.6 J	--	--	--	--	95.4	2.2 J	--	--	--	--	2.7 J	2.3 J		
Chloride	395	mg/L	120	110	120	120	130	130	--	--	130	190	--	--	--	--	120	120	--	--	--	--	130	130		
Total Suspended Solids	40	mg/L	<2.5	<2.5	<2.5	<2.5	20	3.0 J	--	--	<1.9	3.5 J	--	--	--	--	<1.9	<1.9	--	--	--	2.0 J	<1.9	2.0 J		
Biological Oxygen Demand	20	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	--	--	<2.0	<2.0	--	--	--	--	<2.0	<2.0	--	--	--	--	<2.0	<2.0		
<b>VOCs</b>																										
1,1,1-Trichloroethane	50	µg/L	<1.9	<0.38	<0.76	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38		
1,1,2,2-Tetrachloroethane	50	µg/L	<2.0	<0.40	<0.80	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40		
1,1,2-Trichloroethane	50	µg/L	<1.8	<0.35	<0.70	<0.35	<1.8	<0.35	<1.8	<0.35	<1.8	<0.35	<1.8	<0.35	<1.8	<0.35	<1.8	<0.35	<1.8	<0.35	<1.8	<0.35	<1.8	<0.35		
1,1-Dichloroethene	50	µg/L	<2.0	<0.39	<0.78	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39		
1,2-Dichloroethane	180	µg/L	<2.0	<0.39	<0.78	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39	<2.0	<0.39		
Benzene	50	µg/L	<0.73	<0.15	<0.29	<0.15	<0.73	<0.15	<0.73	0.25 J	<0.73	<0.15	<0.73	<0.15	<0.73	<0.15	<0.73	<0.15	<0.73	<0.15	<0.73	<0.15	<0.73	<0.15		
Bromodichloromethane	120	µg/L	<1.9	<0.37	<0.74	<0.37	<1.9	<0.37	<1.9	<0.37	<1.9	<0.37	<1.9	<0.37	<1.9	<0.37	<1.9	<0.37	<1.9	<0.37	<1.9	<0.37	<1.9	<0.37		
Bromoform	120	µg/L	<2.2	<0.45	<0.89	<0.45	<2.2	<0.45	<2.2	<0.45	<2.2	<0.45	<2.2	<0.45	<2.2	<0.45	<2.2	<0.45	<2.2	<0.45	<2.2	<0.45	<2.2	<0.45		
Bromomethane	NE	µg/L	<3.2	<0.65	<1.3	<0.65	<3.2	<0.65	<3.2	<0.65	<3.2	<0.65	<3.2	<0.65	<3.2	<0.65	<3.2	<0.65	<3.2	<0.65	<3.2	<0.65	<3.2	<0.65		
Carbon Tetrachloride	150	µg/L	<1.9	<0.38	<0.77	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38	<1.9	<0.38		
cis-1,2-Dichloroethene	NE	µg/L	<2.0	18	3.0	19	<2.0	18	<2.0	18	11	26	49	22	62	20	22	17	190	18	450	18	83	16		
Chloromethane	NE	µg/L	<1.6	<0.32	<0.64	<0.32	<1.6	<0.32	<1.6	<0.32	<1.6	<0.32	<1.6	<0.32	<1.6	<0.32	<1.6	<0.32	<1.6	<0.32	<1.6	<0.32	<1.6	<0.32		
Ethylbenzene	NE	µg/L	<0.92	<0.18	<0.37	<0.18	<0.92	<0.18	<0.92	<0.18	<0.92	<0.18	<0.92	<0.18	<0.92	<0.18	<0.92	<0.18	<0.92	<0.18	<0.92	<0.18	<0.92	<0.18		
Tetrachloroethene	50	µg/L	1500	29	1400	29	1600	26	1700	21	2200	31	1700	34	1800	32	1700	25	1700	23	1600	14	1600	26		
Toluene	NE	µg/L	<0.76	<0.15	<0.30	<0.15	<0.76	0.18 J	<0.76	<0.15	<0.76	<0.15	<0.76	<0.15	<0.76	<0.15	<0.76	<0.15	<0.76	<0.15	<0.76	<0.15	<0.76	<0.15		
Total Xylenes	NE	µg/L	<2.0	<0.40	<0.80	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40		
trans-1,2-Dichloroethene	NE	µg/L	<1.7	<0.35	<0.70	<0.35	<1.7	<0.35	<1.7	<0.35	<1.7	<0.35	<1.7	<0.35	<1.7	<0.35	<1.7	<0.35	<1.7	<0.35	4.6 J	<0.35	<1.7	<0.35		
Trichloroethene	50	µg/L	<0.82	7.9	20	7.7	2.5	7.5	2.3 J	7.2	45	9.7	110	9.7	130	8.9	66	8.1	240	7.2	370	5.4	130	6.7		
Vinyl chloride	10	µg/L	<1.0	<0.20	<0.41	<0.20	<1.0	<0.20	<1.0	<0.20	<1.0	<0.20	<1.0	<0.20	<1.0	<0.20	<1.0	<0.20	<1.0	<0.20	3.2	<0.20	<1.0	<0.20		
Total BTEX <sup>(1)</sup>	750	µg/L	<2.0	<0.40	<0.80	<0.40	<2.0	0.18 J	<2.0	0.25 J	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40	<2.0	<0.40		
Total VOCs (includes BTEX)	NE	µg/L	1500	54.9	1423	55.7	1602.5	51.68	1702.3	46.45	2256	66.7	1859	66	1992	61	1788	50.1	2130	48	2423.2	37.4	1813	48.7		
<b>PAHs</b>																										
Benzo(a)anthracene	NE	µg/L	<0.024	<0.024	<0.024	<0.024	<0.024	<0.025	--	--	<0.025	<0.025	--	--	--	--	<0.028	<0.026	--	--	--	--	<0.022	<0.025		
Benzo(a)pyrene	0.1	µg/L	<0.024	<0.024	<0.024	<0.024	<0.024	<0.025	<0.026	<0.025	<0.025	<0.025	--	--	--	--	<0.028	<0.026	--	--	--	--	0.056	<0.025		
Benzo(b)fluoranthene	NE	µg/L	<0.024	<0.024	<0.024	<0.024	<0.024	<0.025	--	--	<0.025	<0.025	--	--	--	--	<0.028	<0.026	--	--	--	--	0.063	<0.025		
Benzo(g,h,i)perylene	NE	µg/L	<0.048	<0.048	<0.048	<0.048	<0.048	<0.050	--	--	<0.050	<0.050	--	--	--	--	<0.056	<0.052	--	--	--	--	0.059 J	<0.050		
Benzo(k)fluoranthene	NE	µg/L	<0.048	<0.048	<0.048	<0.048	<0.048	<0.050	--	--	<0.050	<0.050	--	--	--	--	<0.056	<0.052	--	--	--	--	<0.045	<0.050		
Chrysene	NE	µg/L	<0.048	<0.048	<0.048	<0.048	<0.048	<0.050	--	--	<0.050	<0.050	--	--	--	--	<0.056	<0.052	--	--	--	--	<0.045	<0.050		
Dibenzo(a,h)anthracene	NE	µg/L	<0.024	<0.024	<0.024	<0.024	<0.024	<0.025	--	--	<0.025	<0.025	--	--	--	--	<0.028	<0.026	--	--	--	--	<0.022	<0.025		
Fluoranthene	NE	µg/L	<0.048	<0.048	<0.048	<0.048	<0.048	<0.050	--	--	<0.050	<0.050	--	--	--	--	<0.056	<0.052	--	--	--	--	0.087 J	0.058 J		
Indeno(1,2,3-cd)pyrene	NE	µg/L	<0.024	<0.024	<0.024	<0.024	<0.024	<0.025	--	--	<0.025	<0.025	--	--	--	--	<0.028	<0.026	--	--	--	--	0.044 J	<0.025		
Naphthalene	70	µg/L	<0.048	<0.048	<0.048	<0.048	0.12	<0.050	--	--	<0.050	0.14	--	--	--	--	<0.056	<0.052	--	--	--	--	0.054 J	0.073 J		
Phenanthrene	NE	µg/L	<0.048	<0.048	<0.048	<0.048	<0.048	<0.050	--	--	<0.050	<0.050	--	--	--	--	<0.056	<0.052	--	--	--	--	0.26	0.41		
Pyrene	NE	µg/L	<0.048	<0.048	<0.048	<0.048	<0.048	<0.050	--	--	<0.050	<0.050	--	--	--	--	<0.056	<0.052	--	--	--	--	0.052 J	<0.050		
PAHs Group of 10 Total <sup>(2)</sup>	0.1	µg/L	<0.048	<0.048	<0.048	<0.048	<0.048	<0.050	--	--	<0.050	<0.050	--	--	--	--	<0.056	<0.052	--	--	--	--	0.565	0.468		

Notes:  
 < = Less than  
 µg/L = Micrograms per liter  
 mg/L = Milligrams per liter  
 B = Compound was found in the blank and in the sample.  
 J = Estimated value. Analyte detected at a level less than the reporting limit and greater than or equal to the detection limit.  
 F1 = MS and/or MSD Recovery is outside acceptance limits.  
 \* = ISTD response or retention time outside of acceptable limits.  
 ND = Not Detected  
 NE = Not Established  
 -- = Not analyzed  
 PAHs = Polynuclear Aromatic Hydrocarbons  
 VOCs = Volatile Organic Compounds

Updated by: B. Wachholz 1/12/2018  
 Checked by: L. Auner 1/15/2018

Footnotes:  
<sup>(1)</sup> Total BTEX is the sum of the benzene, toluene, ethylbenzene and xylene concentrations. If all compounds were below their corresponding laboratory detection limits, then the highest detection limit of the BTEX compounds was noted.  
<sup>(2)</sup> 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.  
<sup>(3)</sup> The WDNR approved a modification to the GETS monitoring program for select constituents on April 27, 2017 and June 23, 2017. Following the approval, VOCs will be monitored on a monthly basis and all other constituents previously monitored will be completed on a quarterly basis.

Table 3  
 Combined SVE and GETS Gas Analytical Data - January 2016 - December 2017  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

SAMPLE DATE	1/18/2016		2/8/2016		3/7/2016		4/6/2016		5/4/2016		6/7/2016		7/20/2016		8/8/2016		9/9/2016		10/10/2016		11/7/2016		12/7/2016	
	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
Vinyl Chloride	<7.2	<b>1.9</b>	<3.7	<2.2	<2.2	<b>2.2</b>	<16	<b>3.4</b>	<14	<2.0	<16	<2.2	<20	<7.8	<16	<3.3	<7.2	<5.2	<2.7	<1.3	<12	<2.4	<5.7	<2.0
1,1-Dichloroethene	<7.2	<1.6	<3.7	<2.2	<2.2	<1.3	<16	<b>1.8</b>	<14	<2.0	<16	<2.2	<20	<7.8	<16	<3.3	<7.2	<5.2	<2.7	<1.3	<12	<2.4	<5.7	<2.0
cis-1,2-Dichloroethene	<b>640</b>	<b>220</b>	<b>220</b>	<b>130</b>	<b>150</b>	<b>460</b>	<b>480</b>	<b>360</b>	<b>530</b>	<b>430</b>	<b>440</b>	<b>450</b>	<b>530</b>	<b>1900</b>	<b>600</b>	<b>1100</b>	<b>350</b>	<b>1300</b>	<b>230</b>	<b>160</b>	<b>570</b>	<b>710</b>	<b>640</b>	<b>500</b>
Benzene	<7.2	<b>1.8</b>	<3.7	<2.2	<2.2	<1.3	<16	<1.3	<14	<2.0	<16	<2.2	<20	<7.8	<16	<3.3	<7.2	<5.2	<2.7	<1.3	<12	<2.4	<5.7	<2.0
Trichloroethene	<b>370</b>	<b>20</b>	<b>130</b>	<b>23</b>	<b>78</b>	<b>13</b>	<b>400</b>	<b>15</b>	<b>340</b>	<b>16</b>	<b>400</b>	<b>17</b>	<b>440</b>	<b>48</b>	<b>550</b>	<b>39</b>	<b>390</b>	<b>32</b>	<b>130</b>	<b>35</b>	<b>470</b>	<b>110</b>	<b>460</b>	<b>130</b>
Toluene	<7.2	<1.6	<b>25</b>	<2.2	<2.2	<1.3	<16	<b>3</b>	<14	<2.0	<16	<b>18</b>	<20	<7.8	<16	<3.3	<7.2	<5.2	<2.7	<b>4.0</b>	<b>13</b>	<b>6.5</b>	<5.7	<b>3.5</b>
Tetrachloroethene	<b>2400</b>	<b>340</b>	<b>1100</b>	<b>340</b>	<b>690</b>	<b>140</b>	<b>4100</b>	<b>200</b>	<b>3100</b>	<b>180</b>	<b>3700</b>	<b>180</b>	<b>3500</b>	<b>130</b>	<b>3900</b>	<b>160</b>	<b>2000</b>	<b>140</b>	<b>1000</b>	<b>350</b>	<b>3100</b>	<b>150</b>	<b>1800</b>	<b>230</b>
Ethyl Benzene	<7.2	<1.6	<3.7	<2.2	<2.2	<1.3	<16	<b>15</b>	<14	<2.0	<16	<2.2	<20	<7.8	<16	<3.3	<7.2	<5.2	<2.7	<1.3	<12	<2.4	<5.7	<2.0
m,p-Xylene	<7.2	<1.6	<3.7	<2.2	<2.2	<1.3	<b>28</b>	<b>72</b>	<14	<b>2.2</b>	<16	<b>2.4</b>	<20	<7.8	<16	<3.3	<7.2	<5.2	<2.7	<b>1.8</b>	<12	<b>6.8</b>	<5.7	<b>2.0 J</b>
o-Xylene	<7.2	<1.6	<3.7	<2.2	<2.2	<1.3	<16	<b>32</b>	<14	<2.0	<16	<2.2	<20	<7.8	<16	<3.3	<7.2	<5.2	<2.7	<1.3	<12	<2.4	<5.7	<2.0
1,3,5-Trimethylbenzene	<7.2	<1.6	<3.7	<2.2	<b>8.9</b>	<1.3	<16	<b>3.8</b>	<14	<2.0	<16	<2.2	<20	<7.8	<16	<3.3	<7.2	<5.2	<2.7	<1.3	<12	<2.4	<5.7	<2.0
1,2,4-Trimethylbenzene	<7.2	<1.6	<3.7	<2.2	<b>42</b>	<b>7.8</b>	<16	<b>9.1</b>	<14	<2.0	<16	<2.2	<20	<7.8	<16	<3.3	<7.2	<5.2	<2.7	<1.3	<12	<2.4	<5.7	<2.0

**Notes:**

All concentrations in this table are reported in ppbv unless otherwise noted.

All samples were analyzed using Method TO-15 and the analytes shown in the table are from the VOC analyte list. Only analytes that were detected in at least one sample are shown in the table. A complete list of constituents analyzed are included in the laboratory analytical reports.

< = Constituent not detected above noted laboratory method detection limit.

**Bold** = Constituent detected above laboratory detection limit.

SVE = Soil vapor extraction

GETS = Groundwater extraction and treatment system

ppbv = parts per billion by volume

VOCs = Volatile Organic Compounds

Table 3  
 Combined SVE and GETS Gas Analytical Data - January 2016 - December 2017  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

SAMPLE DATE	1/17/2017		2/8/2017		3/7/2017		4/6/2017		5/5/2017		6/7/2017		7/11/2017		8/7/2017		9/14/2017		10/5/2017		11/30/2017		12/8/2017	
	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
Vinyl Chloride	<11	<b>3.8</b>	<23	<b>2.8</b>	<6.0	<b>3.3</b>	<8.4	<b>2.9</b>	<2.5	<2.4	<13	<b>3.0</b>	<10	<b>2.9</b>	<12	<b>4.5</b>	<15	<b>5.3</b>	<4.7	<b>6.8</b>	<b>7.0</b>	<b>3.9</b>	<b>10</b>	<b>8.5</b>
1,1-Dichloroethene	<11	<1.7	<23	<1.1	<6.0	<1.6	<8.4	<1.2	<2.5	<2.4	<13	<1.6	<10	<2.7	<12	<4.2	<15	<4.6	<4.7	<2.6	<5.4	<1.2	<6.4	<2.6
cis-1,2-Dichloroethene	<b>1100</b>	<b>670</b>	<b>1100</b>	<b>460</b>	<b>700</b>	<b>510</b>	<b>680</b>	<b>500</b>	<b>260</b>	<b>420</b>	<b>610</b>	<b>240</b>	<b>870</b>	<b>770</b>	<b>730</b>	<b>470</b>	<b>440</b>	<b>450</b>	<b>280</b>	<b>720</b>	<b>430</b>	<b>110</b>	<b>720</b>	<b>270</b>
Benzene	<11	<1.7	<23	<1.1	<6.0	<1.6	<8.4	<1.2	<2.5	<2.4	<13	<1.6	<10	<2.7	<12	<4.2	<15	<4.6	<4.7	<2.6	<5.4	<1.2	<6.4	<2.6
Trichloroethene	<b>880</b>	<b>300</b>	<b>1000</b>	<b>340</b>	<b>440</b>	<b>210</b>	<b>420</b>	<b>410</b>	<b>240</b>	<b>400</b>	<b>520</b>	<b>200</b>	<b>530</b>	<b>430</b>	<b>570</b>	<b>700</b>	<b>490</b>	<b>1500</b>	<b>270</b>	<b>1000</b>	<b>380</b>	<b>360</b>	<b>540</b>	<b>750</b>
Toluene	<11	<b>14</b>	<23	<b>3.9</b>	<6.0	<b>8.8</b>	<8.4	<b>6.6</b>	<b>4.5</b>	<b>5.9</b>	<13	<1.6	<10	<2.7	<12	<4.2	<15	<4.6	<4.7	<2.6	<b>17</b>	<1.2	<6.4	<2.6
Tetrachloroethene	<b>3200</b>	<b>210</b>	<b>5300</b>	<b>300</b>	<b>1400</b>	<b>280</b>	<b>2200</b>	<b>140</b>	<b>810</b>	<b>230</b>	<b>2500</b>	<b>240</b>	<b>2300</b>	<b>280</b>	<b>2700</b>	<b>260</b>	<b>2900</b>	<b>230</b>	<b>1300</b>	<b>200</b>	<b>1600</b>	<b>360</b>	<b>2400</b>	<b>730</b>
Ethyl Benzene	<11	<1.7	<23	<1.1	<6.0	<1.6	<8.4	<1.2	<2.5	<2.4	<13	<1.6	<10	<2.7	<12	<4.2	<15	<4.6	<4.7	<2.6	<5.4	<1.2	<6.4	<2.6
m,p-Xylene	<11	<b>2.4</b>	<23	<b>2.2</b>	<6.0	<b>4.2</b>	<8.4	<b>2.2</b>	<2.5	<2.4	<13	<1.6	<10	<2.7	<12	<4.2	<15	<4.6	<4.7	<2.6	<5.4	<1.2	<6.4	<2.6
o-Xylene	<11	<1.7	<23	<1.1	<6.0	<1.6	<8.4	<1.2	<2.5	<2.4	<13	<1.6	<10	<2.7	<12	<4.2	<15	<4.6	<4.7	<2.6	<5.4	<1.2	<6.4	<2.6
1,3,5-Trimethylbenzene	<11	<1.7	<23	<1.1	<6.0	<1.6	<8.4	<1.2	<2.5	<2.4	<13	<1.6	<10	<2.7	<12	<4.2	<15	<4.6	<4.7	<2.6	<5.4	<1.2	<6.4	<2.6
1,2,4-Trimethylbenzene	<11	<1.7	<23	<1.1	<6.0	<1.6	<8.4	<1.2	<2.5	<2.4	<13	<1.6	<10	<2.7	<12	<4.2	<15	<4.6	<4.7	<2.6	<5.4	<1.2	<6.4	<2.6

**Notes:**

All concentrations in this table are reported in ppbv unless otherwise noted.  
 All samples were analyzed using Method TO-15 and the analytes shown in the table are from the VOC analyte list. Only analytes that were detected in at least one sample are shown in the table. A complete list of constituents analyzed are included in the laboratory analytical reports.  
 < = Constituent not detected above noted laboratory method detection limit.  
**Bold** = Constituent detected above laboratory detection limit.  
 SVE = Soil vapor extraction  
 GETS = Groundwater extraction and treatment system  
 ppbv = parts per billion by volume  
 VOCs = Volatile Organic Compounds

Updated by: L. Auner 12/28/2017  
 Checked by: K. Barber 1/8/2018

Table 4  
 Estimate of GAC Effluent Emissions - Total Volatile Organic Compounds  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	TOTAL VOC CONCENTRATION <sup>(1)(2)</sup>	SYSTEM FLOW RATE <sup>(3)</sup>	EMISSION RATE <sup>(4)</sup>
	µg/m <sup>3</sup>	CFM	lb/hr
1/18/2016	3500	389.4	5.2E-03
2/8/2016	3300	362.2	4.5E-03
3/7/2016	3100	364.1	4.2E-03
4/6/2016	3700	363.8	5.0E-03
5/4/2016	3300	361.0	4.5E-03
6/7/2016	3500	354.9	4.7E-03
7/20/2016	9900	359.6	1.3E-02
8/8/2016	6400	354.1	8.5E-03
9/9/2016	7100	346.9	9.2E-03
10/10/2016	3500	361.1	4.7E-03
11/7/2016	4900	357.8	6.5E-03
12/7/2016	4600	366.9	6.3E-03
1/17/2017	6000	376.7	8.4E-03
2/8/2017	5800	375.3	8.2E-03
3/7/2017	5400	355.8	7.2E-03
4/6/2017	5400	352.6	7.1E-03
5/5/2017	5800	353.8	7.7E-03
6/7/2017	3900	358.1	5.3E-03
7/11/2017	7700	346.0	9.9E-03
8/7/2017	8100	355.8	1.1E-02
9/14/2017	12200	368.0	1.7E-02
10/5/2017	10300	367.5	1.4E-02
11/30/2017	5000	375.2	7.1E-03
12/8/2017	10600	384.0	1.5E-02
<b>Average Emission Rate<sup>(5)</sup> =</b>			<b>8.1E-03</b>
<b>NR 406 Emission Threshold =</b>			<b>5.7</b>

**Notes:**

VOCs = Volatile Organic Compounds  
 SVE = Soil Vapor Extraction  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour

Updated by: L. Auner 12/28/2017  
 Checked by: K. Barber 1/8/2018

**Footnotes:**

- As of 7/14/2015 the vapors recovered from the SVE system and the GETS operation were combined and are treated through a vapor-phase activated carbon system. An influent and effluent vapor sample is collected each month and analyzed using Method TO-15. The total VOC concentration listed is representative of the effluent sample collected post treatment of the SVE and GETS operations.
- Total VOC concentrations were calculated based on analytes reported above and below the method reporting limit. For detected analytes, the reported concentrations were used. For all other analytes detected below the method reporting limit, half of the reporting limit was used.
- The system flow rate is a combined air flow rate from both the GETS and SVE system and is measured using flow meter FIT-201 which measures total flow from the activated carbon system.
- Emission rates were calculated based on the product of the monthly concentration and monthly system flow rate.
- Average Emission Rate is an average based on samples collected between January 2016 and December 2017.

Table 5  
 Estimate of GAC Effluent Gas Emissions for Tetrachloroethene  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	TOTAL PCE CONCENTRATION <sup>(1)(2)</sup>	SYSTEM FLOW RATE <sup>(3)</sup>	EMISSION RATE <sup>(4)</sup>
	µg/m <sup>3</sup>	CFM	lb/hr
1/18/2016	2300	389.4	3.4E-03
2/8/2016	2300	362.2	3.1E-03
3/7/2016	980	364.1	1.3E-03
4/6/2016	1400	363.8	1.9E-03
5/4/2016	1200	361.0	1.6E-03
6/7/2016	1200	354.9	1.6E-03
7/20/2016	890	359.6	1.2E-03
8/8/2016	1100	354.1	1.5E-03
9/9/2016	950	346.9	1.2E-03
10/10/2016	2400	361.1	3.2E-03
11/7/2016	1000	357.8	1.3E-03
12/7/2016	1500	366.9	2.1E-03
1/17/2017	1400	376.7	2.0E-03
2/8/2017	2000	375.3	2.8E-03
3/7/2017	1900	355.8	2.5E-03
4/6/2017	930	352.6	1.2E-03
5/5/2017	1600	353.8	2.1E-03
6/7/2017	1600	358.1	2.1E-03
7/11/2017	1900	346.0	2.5E-03
8/7/2017	1800	355.8	2.4E-03
9/14/2017	1600	368.0	2.2E-03
10/5/2017	1400	367.5	1.9E-03
11/30/2017	2400	375.2	3.4E-03
12/8/2017	5000	384.0	7.2E-03
<b>Average Emission Rate<sup>(5)</sup> =</b>		<b>2.3E-03</b>	<b>lb/hr</b>
<b>NR 445 Emission Threshold =</b>		<b>35.4</b>	<b>lb/hr</b>

**Notes:**

PCE = Tetrachloroethene  
 SVE = Soil Vapor Extraction  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour

Updated by: L. Auner 12/28/2017  
 Checked by: K. Barber 1/8/2018

**Footnotes:**

- As of 7/14/2015 the vapors recovered from the SVE system and the GETS operation were combined and are treated through a vapor-phase activated carbon system. An influent and effluent vapor sample is collected each month and analyzed using Method TO-15. The PCE concentration listed is representative of the effluent sample collected post treatment of the SVE and GETS operations.
- The PCE concentration reported in the effluent sample was used for emission calculations. If the concentration was reported below the method reporting limit, half of the reporting limit was used for calculations.
- The system flow rate is a combined air flow rate from both the GETS and SVE system and is measured using flow meter FIT-201 which measures total flow from the activated carbon system.
- Emission rates were calculated based on the product of the monthly concentration and monthly system flow rate.
- Average Emission Rate is an average based on samples collected between January 2016 and December 2017.

Table 6  
 Estimate of GAC Effluent Gas Emissions for Trichloroethene  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	TCE CONCENTRATION <sup>(1)(2)</sup>	SYSTEM FLOW RATE <sup>(3)</sup>	EMISSION RATE <sup>(4)</sup>
	µg/m <sup>3</sup>	CFM	lb/hr
1/18/2016	110	389.4	1.6E-04
2/8/2016	120	362.2	1.6E-04
3/7/2016	71	364.1	9.7E-05
4/6/2016	81	363.8	1.1E-04
5/4/2016	85	361.0	1.1E-04
6/7/2016	91	354.9	1.2E-04
7/20/2016	260	359.6	3.5E-04
8/8/2016	210	354.1	2.8E-04
9/9/2016	170	346.9	2.2E-04
10/10/2016	190	361.1	2.6E-04
11/7/2016	600	357.8	8.0E-04
12/7/2016	700	366.9	9.6E-04
1/17/2017	1600	376.7	2.3E-03
2/8/2017	1800	375.3	2.5E-03
3/7/2017	1200	355.8	1.6E-03
4/6/2017	2200	352.6	2.9E-03
5/5/2017	2100	353.8	2.8E-03
6/7/2017	1100	358.1	1.5E-03
7/11/2017	2300	346.0	3.0E-03
8/7/2017	3700	355.8	4.9E-03
9/14/2017	8000	368.0	1.1E-02
10/5/2017	5500	367.5	7.6E-03
11/30/2017	2000	375.2	2.8E-03
12/8/2017	4000	384.0	5.8E-03
<b>Average Emission Rate<sup>(5)</sup> =</b>		<b>2.2E-03</b>	<b>lb/hr</b>
<b>NR 445 Emission Threshold =</b>		<b>56.1</b>	<b>lb/hr</b>

**Notes:**

TCE = Trichloroethene  
 SVE = Soil Vapor Extraction  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour

Updated by: L. Auner 12/28/2017  
 Checked by: K. Barber 1/8/2018

**Footnotes:**

- As of 7/14/2015 the vapors recovered from the SVE system and the GETS operation were combined and are treated through a vapor-phase activated carbon system. An influent and effluent vapor sample is collected each month and analyzed using Method TO-15. The TCE concentration listed is representative of the effluent sample collected post treatment of the SVE and GETS operations.
- The TCE concentration reported in the effluent sample was used for emission calculations. If the concentration was reported below the method reporting limit, half of the reporting limit was used for calculations.
- The system flow rate is a combined air flow rate from both the GETS and SVE system and is measured using flow meter FIT-201 which measures total flow from the activated carbon system.
- Emission rates were calculated based on the product of the monthly concentration and monthly system flow rate.
- Average Emission Rate is an average based on samples collected between January 2016 and December 2017.



Table 7  
 Estimate of GAC Effluent Gas Emissions for Cis-1,2-Dichloroethene  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	CIS-1,2-DCE CONCENTRATION <sup>(1)(2)</sup>	SYSTEM FLOW RATE <sup>(3)</sup>	EMISSION RATE <sup>(4)</sup>
	µg/m <sup>3</sup>	CFM	lb/hr
1/18/2016	860	389.4	1.3E-03
2/8/2016	530	362.2	7.2E-04
3/7/2016	1800	364.1	2.5E-03
4/6/2016	1400	363.8	1.9E-03
5/4/2016	1700	361.0	2.3E-03
6/7/2016	1800	354.9	2.4E-03
7/20/2016	7400	359.6	1.0E-02
8/8/2016	4500	354.1	6.0E-03
9/9/2016	5100	346.9	6.6E-03
10/10/2016	620	361.1	8.4E-04
11/7/2016	2800	357.8	3.8E-03
12/7/2016	2000	366.9	2.7E-03
1/17/2017	2600	376.7	3.7E-03
2/8/2017	1800	375.3	2.5E-03
3/7/2017	2000	355.8	2.7E-03
4/6/2017	2000	352.6	2.6E-03
5/5/2017	1700	353.8	2.3E-03
6/7/2017	960	358.1	1.3E-03
7/11/2017	3000	346.0	3.9E-03
8/7/2017	1900	355.8	2.5E-03
9/14/2017	1800	368.0	2.5E-03
10/5/2017	2900	367.5	4.0E-03
11/30/2017	420	375.2	5.9E-04
12/8/2017	1100	384.0	1.6E-03
<b>Average Emission Rate<sup>(5)</sup> =</b>		<b>3.0E-03</b>	<b>lb/hr</b>
<b>NR 445 Emission Threshold =</b>		<b>166</b>	<b>lb/hr</b>

**Notes:**

cis-1,2-DCE = cis-1,2-Dichloroethene  
 SVE = Soil Vapor Extraction  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour

Updated by: L. Auner 12/28/2017

Checked by: K. Barber 1/8/2018

**Footnotes:**

- As of 7/14/2015 the vapors recovered from the SVE system and the GETS operation were combined and are treated through a vapor-phase activated carbon system. An influent and effluent vapor sample is collected each month and analyzed using Method TO-15. The Cis,1,2-DCE concentration listed is representative of the effluent sample collected post treatment of the SVE and GETS operations.
- The cis-1,2-DCE concentration reported in the effluent sample was used for emission calculations. If the concentration was reported below the method reporting limit, half of the reporting limit was used for calculations.
- The system flow rate is a combined air flow rate from both the GETS and SVE system and is measured using flow meter FIT-201 which measures total flow from the activated carbon system.
- Emission rates were calculated based on the product of the monthly concentration and monthly system flow rate.
- Average Emission Rate is an average based on samples collected between January 2016 and December 2017.

Table 8  
 Estimate of GAC Effluent Gas Emissions for Vinyl Chloride  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	VINYL CHLORIDE CONCENTRATION <sup>(1)(2)</sup>	SYSTEM FLOW RATE <sup>(3)</sup>	EMISSION RATE <sup>(4)</sup>	EMISSION RATE <sup>(4)</sup>
	µg/m <sup>3</sup>	CFM	lb/hr	lb/yr
1/18/2016	5.0	389.4	7.3E-06	6.4E-02
2/8/2016	2.9	362.2	3.9E-06	3.4E-02
3/7/2016	5.7	364.1	7.8E-06	6.8E-02
4/6/2016	8.8	363.8	1.2E-05	1.1E-01
5/4/2016	2.6	361	3.5E-06	3.1E-02
6/7/2016	2.85	354.9	3.79E-06	3.32E-02
7/20/2016	10.0	359.6	1.35E-05	1.18E-01
8/8/2016	4.20	354.1	5.57E-06	4.88E-02
9/9/2016	6.50	346.9	8.45E-06	7.40E-02
10/10/2016	1.65	361.1	2.23E-06	1.95E-02
11/7/2016	3.05	357.8	4.09E-06	3.58E-02
12/7/2016	2.6	366.9	3.57E-06	3.13E-02
1/17/2017	9.8	376.7	1.38E-05	1.21E-01
2/8/2017	7.2	375.3	1.01E-05	8.87E-02
3/7/2017	8.4	355.8	1.12E-05	9.81E-02
4/6/2017	7.3	352.6	9.64E-06	8.45E-02
5/5/2017	3.1	353.8	4.11E-06	3.60E-02
6/7/2017	7.6	358.1	1.02E-05	8.93E-02
7/11/2017	7.5	346.0	9.72E-06	8.51E-02
8/7/2017	11	355.8	1.47E-05	1.28E-01
9/14/2017	13	368.0	1.79E-05	1.57E-01
10/5/2017	17	367.5	2.34E-05	2.05E-01
11/30/2017	10	375.2	1.41E-05	1.23E-01
12/8/2017	22	384.0	3.16E-05	2.77E-01
<b>Average Emission Rate<sup>(5)</sup> =</b>			<b>9.0E-02</b>	<b>lb/yr</b>
<b>NR 445 Emission Threshold =</b>			<b>830</b>	<b>lb/yr</b>

**Notes:**

VC = Vinyl Chloride  
 SVE = Soil Vapor Extraction  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour  
 lb/yr = pounds per year

Updated by: L. Auner 12/28/2017  
 Checked by: K. Barber 1/8/2018

**Footnotes:**

- As of 7/14/2015 the vapors recovered from the SVE system and the GETS operation were combined and are treated through a vapor-phase activated carbon system. An influent and effluent vapor sample is collected each month and analyzed using Method TO-15. The VC concentration listed is representative of the effluent sample collected post treatment of the SVE and GETS operations.
- The VC concentration reported in the effluent sample was used for emission calculations. If the concentration was reported below the method reporting limit, half of the reporting limit was used for calculations.
- The system flow rate is a combined air flow rate from both the GETS and SVE system and is measured using flow meter FIT-201 which measures total flow from the activated carbon system.
- Emission rates were calculated based on the product of the monthly concentration and monthly system flow rate.
- Average Emission Rate is an average based on samples collected between January 2016 and December 2017.

Table 9  
 Estimate of GAC Influent Gas Rate - Total Volatile Organic Compounds  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	TOTAL VOC CONCENTRATION <sup>(1)(2)</sup>	SYSTEM FLOW RATE <sup>(3)</sup>	EMISSION RATE <sup>(4)</sup>
	µg/m <sup>3</sup>	CFM	lb/hr
1/18/2016	21700	389.4	3.2E-02
2/8/2016	9600	362.2	1.3E-02
3/7/2016	6300	364.1	8.6E-03
4/6/2016	34800	363.8	4.7E-02
5/4/2016	27300	361.0	3.7E-02
6/7/2016	31700	354.9	4.2E-02
7/20/2016	32000	359.6	4.3E-02
8/8/2016	34200	354.1	4.5E-02
9/9/2016	17700	346.9	2.3E-02
10/10/2016	9100	361.1	1.2E-02
11/7/2016	27900	357.8	3.7E-02
12/7/2016	18000	366.9	2.5E-02
1/17/2017	33100	376.7	4.7E-02
2/8/2017	50300	375.3	7.1E-02
3/7/2017	15400	355.8	2.1E-02
4/6/2017	21400	352.6	2.8E-02
5/5/2017	8200	353.8	1.1E-02
6/7/2017	24400	358.1	3.3E-02
7/11/2017	24000	346.0	3.1E-02
8/7/2017	26100	355.8	3.5E-02
9/14/2017	27000	368.0	3.7E-02
10/5/2017	12400	367.5	1.7E-02
11/30/2017	15800	375.2	2.2E-02
12/8/2017	22900	384.0	3.3E-02
<b>Average Emission Rate<sup>(5)</sup> =</b>			<b>3.1E-02</b>
<b>NR 406 Emission Threshold =</b>			<b>5.7</b>
			<b>lb/hr</b>
			<b>lb/hr</b>

**Notes:**

VOCs = Volatile Organic Compounds  
 SVE = Soil Vapor Extraction  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour

Updated by: L. Auner 1/30/2018

Checked by: B. Wachholz 1/30/2018

**Footnotes:**

- As of 7/14/2015 the vapors recovered from the SVE system and the GETS operation were combined and are treated through a vapor-phase activated carbon system. An influent and effluent vapor sample is collected each month and analyzed using Method TO-15. The total VOC concentration listed is representative of the influent sample collected pre treatment of the SVE and GETS operations.
- Total VOC concentrations were calculated based on analytes reported above and below the method reporting limit. For detected analytes, the reported concentrations were used. For all other analytes detected below the method reporting limit, half of the reporting limit was used.
- The system flow rate is a combined air flow rate from both the GETS and SVE system and is measured using flow meter FIT-201 which measures total flow from the activated carbon system.
- Emission rates were calculated based on the product of the monthly concentration and monthly system flow rate.
- Average Emission Rate is an average based on samples collected between July 2017 and December 2017.

Table 10  
 Estimate of GAC Influent Gas Rate for Tetrachloroethene  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	TOTAL PCE CONCENTRATION <sup>(1)(2)</sup>	SYSTEM FLOW RATE <sup>(3)</sup>	EMISSION RATE <sup>(4)</sup>
	µg/m <sup>3</sup>	CFM	lb/hr
1/18/2016	16000	389.4	2.3E-02
2/8/2016	7300	362.2	9.9E-03
3/7/2016	4700	364.1	6.4E-03
4/6/2016	28000	363.8	3.8E-02
5/4/2016	21000	361.0	2.8E-02
6/7/2016	25000	354.9	3.3E-02
7/20/2016	24000	359.6	3.2E-02
8/8/2016	26000	354.1	3.4E-02
9/9/2016	13000	346.9	1.7E-02
10/10/2016	7000	361.1	9.5E-03
11/7/2016	21000	357.8	2.8E-02
12/7/2016	12000	366.9	1.6E-02
1/17/2017	22000	376.7	3.1E-02
2/8/2017	36000	375.3	5.1E-02
3/7/2017	9300	355.8	1.2E-02
4/6/2017	15000	352.6	2.0E-02
5/5/2017	5500	353.8	7.3E-03
6/7/2017	17000	358.1	2.3E-02
7/11/2017	16000	346.0	2.1E-02
8/7/2017	18000	355.8	2.4E-02
9/14/2017	20000	368.0	2.8E-02
10/5/2017	9100	367.5	1.3E-02
11/30/2017	11000	375.2	1.5E-02
12/8/2017	16000	384.0	2.3E-02
<b>Average Emission Rate<sup>(5)</sup> =</b>		<b>2.3E-02</b>	<b>lb/hr</b>
<b>NR 445 Emission Threshold =</b>		<b>35.4</b>	<b>lb/hr</b>

**Notes:**

PCE = Tetrachloroethene  
 SVE = Soil Vapor Extraction  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour

Updated by: L. Auner 1/30/2018  
 Checked by: B. Wachholz 1/30/2018

**Footnotes:**

- As of 7/14/2015 the vapors recovered from the SVE system and the GETS operation were combined and are treated through a vapor-phase activated carbon system. An influent and effluent vapor sample is collected each month and analyzed using Method TO-15. The PCE concentration listed is representative of the influent sample collected pre treatment of the SVE and GETS operations.
- The PCE concentration reported in the influent sample was used for emission calculations. If the concentration was reported below the method reporting limit, half of the reporting limit was used for calculations.
- The system flow rate is a combined air flow rate from both the GETS and SVE system and is measured using flow meter FIT-201 which measures total flow from the activated carbon system.
- Emission rates were calculated based on the product of the monthly concentration and monthly system flow rate.
- Average Emission Rate is an average based on samples collected between July 2017 and December 2017.

Table 11  
 Estimate of GAC Influent Gas Rate for Trichloroethene  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	TCE CONCENTRATION <sup>(1)(2)</sup>	SYSTEM FLOW RATE <sup>(3)</sup>	EMISSION RATE <sup>(4)</sup>
	µg/m <sup>3</sup>	CFM	lb/hr
1/18/2016	2000	389.4	2.9E-03
2/8/2016	710	362.2	9.6E-04
3/7/2016	420	364.1	5.7E-04
4/6/2016	2200	363.8	3.0E-03
5/4/2016	1800	361.0	2.4E-03
6/7/2016	2200	354.9	2.9E-03
7/20/2016	2400	359.6	3.2E-03
8/8/2016	3000	354.1	4.0E-03
9/9/2016	2100	346.9	2.7E-03
10/10/2016	720	361.1	9.7E-04
11/7/2016	2500	357.8	3.4E-03
12/7/2016	2400	366.9	3.3E-03
1/17/2017	4700	376.7	6.6E-03
2/8/2017	5700	375.3	8.0E-03
3/7/2017	2300	355.8	3.1E-03
4/6/2017	2300	352.6	3.0E-03
5/5/2017	1300	353.8	1.7E-03
6/7/2017	2800	358.1	3.8E-03
7/11/2017	2800	346.0	3.6E-03
8/7/2017	3100	355.8	4.1E-03
9/14/2017	2600	368.0	3.6E-03
10/5/2017	1400	367.5	1.9E-03
11/30/2017	2100	375.2	3.0E-03
12/8/2017	2900	384.0	4.2E-03
<b>Average Emission Rate<sup>(5)</sup> =</b>		<b>3.2E-03</b>	<b>lb/hr</b>
<b>NR 445 Emission Threshold =</b>		<b>56.1</b>	<b>lb/hr</b>

**Notes:**

TCE = Trichloroethene  
 SVE = Soil Vapor Extraction  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour

Updated by: L. Auner 1/30/2018  
 Checked by: B. Wachholz 1/30/2018

**Footnotes:**

- As of 7/14/2015 the vapors recovered from the SVE system and the GETS operation were combined and are treated through a vapor-phase activated carbon system. An influent and effluent vapor sample is collected each month and analyzed using Method TO-15. The TCE concentration listed is representative of the influent sample collected pre treatment of the SVE and GETS operations.
- The TCE concentration reported in the influent sample was used for emission calculations. If the concentration was reported below the method reporting limit, half of the reporting limit was used for calculations.
- The system flow rate is a combined air flow rate from both the GETS and SVE system and is measured using flow meter FIT-201 which measures total flow from the activated carbon system.
- Emission rates were calculated based on the product of the monthly concentration and monthly system flow rate.
- Average Emission Rate is an average based on samples collected between July 2017 and December 2017.

Table 12  
 Estimate of GAC Influent Gas Rate for Cis-1,2-Dichloroethene  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	CIS-1,2-DCE CONCENTRATION <sup>(1)(2)</sup>	SYSTEM FLOW RATE <sup>(3)</sup>	EMISSION RATE <sup>(4)</sup>
	µg/m <sup>3</sup>	CFM	lb/hr
1/18/2016	2500	389.4	3.6E-03
2/8/2016	880	362.2	1.2E-03
3/7/2016	610	364.1	8.3E-04
4/6/2016	1900	363.8	2.6E-03
5/4/2016	2100	361.0	2.8E-03
6/7/2016	1800	354.9	2.4E-03
7/20/2016	2100	359.6	2.8E-03
8/8/2016	2400	354.1	3.2E-03
9/9/2016	1400	346.9	1.8E-03
10/10/2016	910	361.1	1.2E-03
11/7/2016	2300	357.8	3.1E-03
12/7/2016	2600	366.9	3.6E-03
1/17/2016	4500	376.7	6.3E-03
2/8/2017	4600	375.3	6.5E-03
3/7/2017	2800	355.8	3.7E-03
4/6/2017	2700	352.6	3.6E-03
5/5/2017	1000	353.8	1.3E-03
6/7/2017	2400	358.1	3.2E-03
7/11/2017	3400	346.0	4.4E-03
8/7/2017	2900	355.8	3.9E-03
9/14/2017	1700	368.0	2.3E-03
10/5/2017	1100	367.5	1.5E-03
11/30/2017	1700	375.2	2.4E-03
12/8/2017	2900	384.0	4.2E-03
<b>Average Emission Rate<sup>(5)</sup> =</b>		<b>3.0E-03</b>	<b>lb/hr</b>
<b>NR 445 Emission Threshold =</b>		<b>166</b>	<b>lb/hr</b>

**Notes:**

cis-1,2-DCE = cis-1,2-Dichloroethene  
 SVE = Soil Vapor Extraction  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour

Updated by: L. Auner 1/30/2018  
 Checked by: B. Wachholz 1/30/2018

**Footnotes:**

- As of 7/14/2015 the vapors recovered from the SVE system and the GETS operation were combined and are treated through a vapor-phase activated carbon system. An influent and effluent vapor sample is collected each month and analyzed using Method TO-15. The Cis,1,2-DCE concentration listed is representative of the influent sample collected pre treatment of the SVE and GETS operations.
- The cis-1,2-DCE concentration reported in the influent sample was used for emission calculations. If the concentration was reported below the method reporting limit, half of the reporting limit was used for calculations.
- The system flow rate is a combined air flow rate from both the GETS and SVE system and is measured using flow meter FIT-201 which measures total flow from the activated carbon system.
- Emission rates were calculated based on the product of the monthly concentration and monthly system flow rate.
- Average Emission Rate is an average based on samples collected between July 2017 and December 2017.

Table 13  
 Estimate of GAC Influent Gas Rate for Vinyl Chloride  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	VINYL CHLORIDE CONCENTRATION <sup>(1)(2)</sup>	SYSTEM FLOW RATE <sup>(3)</sup>	EMISSION RATE <sup>(4)</sup>	
	µg/m <sup>3</sup>	CFM	lb/hr	lb/yr
1/18/2016	9.0	389.4	1.3E-05	1.1E-01
2/8/2016	4.7	362.2	6.4E-06	5.6E-02
3/7/2016	2.8	364.1	3.8E-06	3.3E-02
4/6/2016	20.0	363.8	2.7E-05	2.4E-01
5/4/2016	18.0	361	2.4E-05	2.1E-01
6/7/2016	20.5	354.9	2.7E-05	2.39E-01
7/20/2016	26.0	359.6	3.5E-05	3.07E-01
8/8/2016	20.5	354.1	2.7E-05	2.38E-01
9/9/2016	9.0	346.9	1.2E-05	1.02E-01
10/10/2016	3.4	361.1	4.6E-06	4.03E-02
11/7/2016	15.5	357.8	2.1E-05	1.82E-01
12/7/2016	7.0	366.9	9.6E-06	8.43E-02
1/17/2017	14.0	376.7	2.0E-05	1.73E-01
2/8/2017	30.0	375.3	4.2E-05	3.69E-01
3/7/2017	7.5	355.8	1.0E-05	8.76E-02
4/6/2017	10.5	352.6	1.4E-05	1.21E-01
5/5/2017	3.2	353.8	4.2E-06	3.71E-02
6/7/2017	16.5	358.1	2.2E-05	1.94E-01
7/11/2017	13.0	346.0	1.7E-05	1.48E-01
8/7/2017	16.0	355.8	2.1E-05	1.87E-01
9/14/2017	19.5	368.0	2.7E-05	2.35E-01
10/5/2017	6.0	367.5	8.3E-06	7.24E-02
11/30/2017	18.0	375.2	2.5E-05	2.22E-01
12/8/2017	26.0	384.0	3.7E-05	3.28E-01
<b>Average Emission Rate<sup>(5)</sup> =</b>			<b>1.7E-01</b>	<b>lb/yr</b>
<b>NR 445 Emission Threshold =</b>			<b>830</b>	<b>lb/yr</b>

**Notes:**

VC = Vinyl Chloride  
 SVE = Soil Vapor Extraction  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour  
 lb/yr = pounds per year

Updated by: L. Auner 1/30/2018  
 Checked by: B. Wachholz 1/30/2018

**Footnotes:**

- As of 7/14/2015 the vapors recovered from the SVE system and the GETS operation were combined and are treated through a vapor-phase activated carbon system. An influent and effluent vapor sample is collected each month and analyzed using Method TO-15. The VC concentration listed is representative of the influent sample collected pre treatment of the SVE and GETS operations.
- The VC concentration reported in the influent sample was used for emission calculations. If the concentration was reported below the method reporting limit, half of the reporting limit was used for calculations.
- The system flow rate is a combined air flow rate from both the GETS and SVE system and is measured using flow meter FIT-201 which measures total flow from the activated carbon system.
- Emission rates were calculated based on the product of the monthly concentration and monthly system flow rate.
- Average Emission Rate is an average based on samples collected between July 2017 and December 2017.

Table 14  
 Estimate of GETS Influent Gas Generation Rates  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	CONCENTRATION (ug/m3)	SYSTEM FLOW RATE (CFM) <sup>(1,3)</sup>	GETS GAS GENERATION RATE (lb/hr) <sup>(1,2)</sup>	GENERATION RATE AS % OF THRESHOLD
<b>Total VOCs, NR 406 Emission Threshold - 5.7 lb/hr</b>				
9/14/2017	53422	368.0	7.4E-02	1.3%
10/5/2017	50763	367.5	7.0E-02	1.2%
11/13/2017	32477	375.2	4.6E-02	0.80%
12/8/2017	38610	384.0	5.6E-02	0.97%
<b>PCE, NR 445 Emission Threshold - 35.4 lb/hr</b>				
9/14/2017	41000	368.0	5.7E-02	0.16%
10/5/2017	39000	367.5	5.4E-02	0.15%
11/13/2017	20000	375.2	2.8E-02	0.079%
12/8/2017	27000	384.0	3.9E-02	0.11%
<b>TCE, NR 445 Emission Threshold - 56.1 lb/hr</b>				
9/14/2017	5000	368.0	6.9E-03	0.012%
10/5/2017	4800	367.5	6.6E-03	0.012%
11/13/2017	5000	375.2	7.0E-03	0.013%
12/8/2017	4700	384.0	6.8E-03	0.012%
<b>cis-1,2-DCE, NR 445 Emission Threshold - 166 lb/hr</b>				
9/14/2017	2900	368.0	4.0E-03	0.0024%
10/5/2017	3100	367.5	4.3E-03	0.0026%
11/13/2017	5900	375.2	8.3E-03	0.0050%
12/8/2017	4600	384.0	6.6E-03	0.0040%
<b>Vinyl Chloride, NR 445 Emission Threshold - 830 lb/yr = 0.0948 lb/hr</b>				
9/14/2017	34	368.0	4.7E-05	0.049%
10/5/2017	29	367.5	4.0E-05	0.042%
11/13/2017	34	375.2	4.8E-05	0.050%
12/8/2017	35	384.0	5.0E-05	0.053%

**Notes:**

VOCs = Volatile Organic Compounds  
 PCE = Tetrachloroethene  
 TCE = Trichloroethene  
 cis-1,2-DCE = cis-1,2-Dichloroethene  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour

Prepared by: L. Auner 12/28/2017

Checked by: K. Barber 1/9/2018

**Footnotes:**

1. The estimated rates were calculated using the gas analytical data collected from the GETS only (before treatment was completed) and the total flow rate for GETS and SVE system. Due to the use of this total flow rate, the calculated gas concentration rates are bias high and therefore an overestimate of the expected GETS discharge rates.
2. Total VOC concentrations were calculated based on analytes reported above and below the method reporting limit. For detected analytes, the reported concentrations were used. For all other analytes detected below the method reporting limit, half of the reporting limit was used.
3. The system flow rate is a combined air flow rate from both the GETS and SVE system and is measured using flow meter FIT-201 which measures total flow from the activated carbon system.



Table 15  
 Summary of SVE Operations - January 1, 2016 - December 30, 2017  
 Madison Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-1	6/26/2017	-95.2	14.4	--
SVE-1	7/11/2017	-81.6	18.1	0.8
SVE-1	7/17/2017	-81.6	14.7	--
SVE-1	7/24/2017	-88.4	14.6	--
SVE-1	8/1/2017	-81.6	18.1	--
SVE-1	8/7/2017	-81.6	14.7	1.5
SVE-1	8/15/2017	-74.8	18.2	--
SVE-1	8/25/2017	-74.8	14.9	--
SVE-1	8/29/2017	-81.6	18.1	--
SVE-1	9/6/2017	-74.8	14.9	--
SVE-1	9/11/2017	-74.8	14.9	1.6
SVE-1	9/22/2017	-68.0	18.4	--
SVE-1	9/28/2017	-70.7	15.0	--
SVE-1	10/5/2017	-68.0	15.0	0.8
SVE-1	10/12/2017	-81.6	14.7	--
SVE-1	10/18/2017	-81.6	14.7	--
SVE-1	10/25/2017	-81.6	10.4	--
SVE-1	11/2/2017	-81.6	14.7	--
SVE-1	11/7/2017	-81.6	_(2)	--
SVE-1	11/13/2017	-68.0	15.0	0.9
SVE-1	11/21/2017	-68.0	15.0	--
SVE-1	11/28/2017	-68.0	15.0	--
SVE-1	12/8/2017	-74.8	18.2	0.5
SVE-1	12/13/2017	-74.8	14.9	--
SVE-1	12/19/2017	-68.0	15.0	--
SVE-1	12/28/2017	-81.6	14.7	--
SVE-2	6/26/2017	-88.4	0.0	--
SVE-2	7/11/2017	-81.6	25.5	0.8
SVE-2	7/17/2017	-81.6	27.6	--
SVE-2	7/24/2017	-95.2	0.0	--
SVE-2	8/1/2017	-68.0	30.1	--
SVE-2	8/7/2017	-68.0	30.1	1.8
SVE-2	8/15/2017	-68.0	35.3	--
SVE-2	8/25/2017	-68.0	35.3	--
SVE-2	8/29/2017	-68.0	28.1	--
SVE-2	9/6/2017	-68.0	23.8	--
SVE-2	9/11/2017	-68.0	28.1	0.7
SVE-2	9/22/2017	-68.0	28.1	--
SVE-2	9/28/2017	-61.2	29.4	--
SVE-2	10/5/2017	-68.0	28.1	1.3
SVE-2	10/12/2017	-69.3	28.1	--
SVE-2	10/18/2017	-68.0	28.1	--
SVE-2	10/25/2017	-74.8	27.9	--
SVE-2	11/2/2017	-68.0	35.3	--
SVE-2	11/7/2017	-68.0	_(2)	--
SVE-2	11/13/2017	-54.4	28.7	1.2
SVE-2	11/21/2017	-68.0	31.9	--
SVE-2	11/28/2017	-54.4	30.7	--
SVE-2	12/8/2017	-54.4	34.3	0.7
SVE-2	12/13/2017	-68.0	33.6	--
SVE-2	12/19/2017	-54.4	36.0	--
SVE-2	12/28/2017	-54.4	36.0	--

Table 15  
 Summary of SVE Operations - January 1, 2016 - December 30, 2017  
 Madison Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-3	6/26/2017	-95.2	0.0	--
SVE-3	7/11/2017	-81.6	10.4	2.1
SVE-3	7/17/2017	-81.6	10.4	--
SVE-3	7/24/2017	-108.8	0.0	--
SVE-3	8/1/2017	-81.6	10.4	--
SVE-3	8/7/2017	-81.6	14.7	4.4
SVE-3	8/15/2017	-81.6	10.4	--
SVE-3	8/25/2017	-81.6	10.4	--
SVE-3	8/29/2017	-81.6	10.4	--
SVE-3	9/6/2017	-68.0	0.0	--
SVE-3	9/11/2017	-74.8	10.5	5.9
SVE-3	9/22/2017	-81.6	10.4	--
SVE-3	9/28/2017	-68.0	13.0	--
SVE-3	10/5/2017	-81.6	10.4	4.6
SVE-3	10/12/2017	-81.6	12.8	--
SVE-3	10/18/2017	-81.6	10.4	--
SVE-3	10/25/2017	-81.6	11.4	--
SVE-3	11/2/2017	-81.6	14.7	--
SVE-3	11/7/2017	-81.6	_(2)	--
SVE-3	11/13/2017	-68.0	18.4	3.4
SVE-3	11/21/2017	-81.6	14.7	--
SVE-3	11/28/2017	-68.0	15.0	--
SVE-3	12/8/2017	-74.8	14.9	1.9
SVE-3	12/13/2017	-68.0	10.6	--
SVE-3	12/19/2017	-68.0	15.0	--
SVE-3	12/28/2017	-68.0	15.0	--
SVE-4	6/26/2017	-81.6	23.3	--
SVE-4	7/11/2017	-81.6	23.3	3.3
SVE-4	7/17/2017	-81.6	20.8	--
SVE-4	7/24/2017	-95.2	22.8	--
SVE-4	8/1/2017	-68.0	21.3	--
SVE-4	8/7/2017	-68.0	21.3	8.9
SVE-4	8/15/2017	-68.0	21.3	--
SVE-4	8/25/2017	-68.0	21.3	--
SVE-4	8/29/2017	-68.0	21.3	--
SVE-4	9/6/2017	-68.0	21.3	--
SVE-4	9/11/2017	-68.0	21.3	4.2
SVE-4	9/22/2017	-68.0	21.3	--
SVE-4	9/28/2017	-66.6	21.3	--
SVE-4	10/5/2017	-61.2	21.5	4.4
SVE-4	10/12/2017	-70.7	23.7	--
SVE-4	10/18/2017	-74.8	23.5	--
SVE-4	10/25/2017	-78.2	23.4	--
SVE-4	11/2/2017	-68.0	21.3	--
SVE-4	11/7/2017	-68.0	_(2)	--
SVE-4	11/13/2017	-61.2	21.5	3.5
SVE-4	11/21/2017	-68.0	21.3	--
SVE-4	11/28/2017	-61.2	18.6	--
SVE-4	12/8/2017	-68.0	23.8	2.0
SVE-4	12/13/2017	-61.2	21.5	--
SVE-4	12/19/2017	-61.2	21.5	--
SVE-4	12/28/2017	-68.0	21.3	--

Table 15  
 Summary of SVE Operations - January 1, 2016 - December 30, 2017  
 Madison Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-5	6/26/2017	-95.2	27.0	--
SVE-5	7/11/2017	-81.6	23.3	1.3
SVE-5	7/17/2017	-81.6	25.5	--
SVE-5	7/24/2017	-95.2	27.0	--
SVE-5	8/1/2017	-74.8	23.5	--
SVE-5	8/7/2017	-74.8	23.5	2.9
SVE-5	8/15/2017	-74.8	23.5	--
SVE-5	8/25/2017	-74.8	23.5	--
SVE-5	8/29/2017	-74.8	23.5	--
SVE-5	9/6/2017	-74.8	23.5	--
SVE-5	9/11/2017	-68.0	23.8	2.3
SVE-5	9/22/2017	-68.0	23.8	--
SVE-5	9/28/2017	-70.7	22.5	--
SVE-5	10/5/2017	-68.0	23.8	2.1
SVE-5	10/12/2017	-78.9	24.3	--
SVE-5	10/18/2017	-81.6	23.3	--
SVE-5	10/25/2017	-81.6	24.4	--
SVE-5	11/2/2017	-74.8	23.5	--
SVE-5	11/7/2017	-74.8	_(2)	--
SVE-5	11/13/2017	-68.0	26.1	1.0
SVE-5	11/21/2017	-68.0	23.8	--
SVE-5	11/28/2017	-68.0	23.8	--
SVE-5	12/8/2017	-68.0	23.8	0.6
SVE-5	12/13/2017	-68.0	23.8	--
SVE-5	12/19/2017	-68.0	23.8	--
SVE-5	12/28/2017	-68.0	23.8	--
SVE-6	6/26/2017	-81.6	29.5	--
SVE-6	7/11/2017	-74.8	27.9	0.6
SVE-6	7/17/2017	-81.6	27.6	--
SVE-6	7/24/2017	-88.4	30.9	--
SVE-6	8/1/2017	-68.0	26.1	--
SVE-6	8/7/2017	-68.0	26.1	1.6
SVE-6	8/15/2017	-68.0	26.1	--
SVE-6	8/25/2017	-68.0	31.9	--
SVE-6	8/29/2017	-68.0	26.1	--
SVE-6	9/6/2017	-68.0	26.1	--
SVE-6	9/11/2017	-61.2	26.3	1.3
SVE-6	9/22/2017	-68.0	23.8	--
SVE-6	9/28/2017	-61.2	27.4	--
SVE-6	10/5/2017	-61.2	26.3	1.3
SVE-6	10/12/2017	-70.7	23.7	--
SVE-6	10/18/2017	-68.0	26.1	--
SVE-6	10/25/2017	-71.4	24.8	--
SVE-6	11/2/2017	-68.0	18.4	--
SVE-6	11/7/2017	-68.0	_(2)	--
SVE-6	11/13/2017	-54.4	28.7	0.7
SVE-6	11/21/2017	-68.0	10.6	--
SVE-6	11/28/2017	-54.4	21.7	--
SVE-6	12/8/2017	-61.2	21.5	--
SVE-6	12/13/2017	-68.0	18.4	--
SVE-6	12/19/2017	-54.4	18.8	--
SVE-6	12/28/2017	-54.4	18.8	--

Table 15  
 Summary of SVE Operations - January 1, 2016 - December 30, 2017  
 Madison Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-7	6/26/2017	-95.2	20.4	--
SVE-7	7/11/2017	-81.6	20.8	0.2
SVE-7	7/17/2017	-81.6	18.1	--
SVE-7	7/24/2017	-95.2	20.4	--
SVE-7	8/1/2017	-74.8	21.1	--
SVE-7	8/7/2017	-68.0	18.4	0.6
SVE-7	8/15/2017	-74.8	18.2	--
SVE-7	8/25/2017	-68.0	18.4	--
SVE-7	8/29/2017	-74.8	21.1	--
SVE-7	9/6/2017	-68.0	18.4	--
SVE-7	9/11/2017	-68.0	18.4	0.2
SVE-7	9/22/2017	-68.0	18.4	--
SVE-7	9/28/2017	-68.0	18.4	--
SVE-7	10/5/2017	-68.0	18.4	0.8
SVE-7	10/12/2017	-72.1	20.1	--
SVE-7	10/18/2017	-74.8	18.2	--
SVE-7	10/25/2017	-78.2	19.9	--
SVE-7	11/2/2017	-74.8	21.1	--
SVE-7	11/7/2017	-74.8	_(2)	--
SVE-7	11/13/2017	-68.0	18.4	0.1
SVE-7	11/21/2017	-68.0	18.4	--
SVE-7	11/28/2017	-68.0	18.4	--
SVE-7	12/8/2017	-68.0	21.3	0.2
SVE-7	12/13/2017	-68.0	21.3	--
SVE-7	12/19/2017	-61.2	18.6	--
SVE-7	12/28/2017	-74.8	18.2	--
SVE-8	6/26/2017	-81.6	27.6	--
SVE-8	7/11/2017	-81.6	25.5	0.2
SVE-8	7/17/2017	-81.6	25.5	--
SVE-8	7/24/2017	-95.2	28.9	--
SVE-8	8/1/2017	-74.8	25.8	--
SVE-8	8/7/2017	-74.8	23.5	0.6
SVE-8	8/15/2017	-68.0	23.8	--
SVE-8	8/25/2017	-74.8	23.5	--
SVE-8	8/29/2017	-74.8	23.5	--
SVE-8	9/6/2017	-68.0	23.8	--
SVE-8	9/11/2017	-68.0	23.8	0.3
SVE-8	9/22/2017	-68.0	23.8	--
SVE-8	9/28/2017	-68.0	23.8	--
SVE-8	10/5/2017	-68.0	23.8	0.6
SVE-8	10/12/2017	-77.5	23.4	--
SVE-8	10/18/2017	-74.8	23.5	--
SVE-8	10/25/2017	-81.6	23.3	--
SVE-8	11/2/2017	-68.0	26.1	--
SVE-8	11/7/2017	-74.8	_(2)	--
SVE-8	11/13/2017	-68.0	28.1	0.2
SVE-8	11/21/2017	-68.0	28.1	--
SVE-8	11/28/2017	-68.0	28.1	--
SVE-8	12/8/2017	-68.0	28.1	0.2
SVE-8	12/13/2017	-68.0	28.1	--
SVE-8	12/19/2017	-61.2	28.4	--
SVE-8	12/28/2017	-61.2	26.3	--

Table 15  
 Summary of SVE Operations - January 1, 2016 - December 30, 2017  
 Madison Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H <sub>2</sub> O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-9	6/26/2017	-68.0	23.8	--
SVE-9	7/11/2017	-68.0	23.8	0.7
SVE-9	7/17/2017	-81.6	20.8	--
SVE-9	7/24/2017	-74.8	21.1	--
SVE-9	8/1/2017	-54.4	21.7	--
SVE-9	8/7/2017	-40.8	22.1	2.1
SVE-9	8/15/2017	-54.4	21.7	--
SVE-9	8/25/2017	-27.2	22.5	--
SVE-9	8/29/2017	-54.4	21.7	--
SVE-9	9/6/2017	-27.2	19.5	--
SVE-9	9/11/2017	-34.0	22.3	0.7
SVE-9	9/22/2017	-54.4	18.8	--
SVE-9	9/28/2017	-34.0	20.9	--
SVE-9	10/5/2017	-27.2	19.5	1.2
SVE-9	10/12/2017	-40.8	22.1	--
SVE-9	10/18/2017	-68.0	15.0	--
SVE-9	10/25/2017	-47.6	19.0	--
SVE-9	11/2/2017	-54.4	18.8	--
SVE-9	11/7/2017	-54.4	_( <sup>2</sup> )	--
SVE-9	11/13/2017	-61.2	18.6	1.0
SVE-9	11/21/2017	-68.0	18.4	--
SVE-9	11/28/2017	-68.0	18.4	--
SVE-9	12/8/2017	-40.8	22.1	0.7
SVE-9	12/13/2017	-54.4	18.8	--
SVE-9	12/19/2017	-54.4	18.8	--
SVE-9	12/28/2017	-54.4	18.8	--

**Notes:**

System operation data before January 2016 was previously reported.

Photoionization Detector (PID) did not calibrate on April 6, 2016.

NR = No reading recorded during system inspection.

- = data not collected due to operational issues

-- = not monitored

cfm = cubic feet per minute

GETS = Groundwater Extraction System

in H<sub>2</sub>O = Inches of water column

ppm = parts per million

SVE = Soil Vapor Extraction

VOCs = Volatile Organic Compounds

**Footnotes:**

<sup>(1)</sup> SVE-2 differential pressure gauge not working during 8/15/16 sampling event.

<sup>(2)</sup> The differential pressure was not recorded during the November 7, 2017 monitoring event.

Table 16  
 WDNR Approved Performance Monitoring Plan - 2017  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

WELL/ POINT ID	BEDROCK UNIT	SCREENED INTERVAL (ft bgs)	APRIL & OCTOBER GAUGING	APRIL VOC SAMPLING	OCTOBER VOC SAMPLING	PUMP TYPE
GWE-1*	Lone Rock/ Wonewoc	55-175	x	x	x	NA
MW-1	Unconsolidated	14-24	x		x	Peristaltic
MW-2S	Unconsolidated	19-29	x			NA
MW-2D	Upper Lone Rock	39-44	x	x	x	Peristaltic
MW-3S	Unconsolidated	19-29	x		x	Peristaltic
MW-3D	Upper Lone Rock	48-53	x	x	x	Peristaltic
MW-3D2	Lower Lone Rock	76-81	x	x	x	Peristaltic
MW-3D3	Lower Wonewoc/ Upper Eau Claire	214-224	x		x	GeoSub
MW-4S**	Unconsolidated/ Upper Lone Rock	35-50	x			NA
MW-4D	Lower Lone Rock	65-70	x			NA
MW-4D2	Lower Lone Rock	91-96	x	x	x	Bladder
MW-5S	Upper Lone Rock	34-44	x		x	Peristaltic
MW-5D	Lower Lone Rock	75-80	x	x	x	Peristaltic
MW-5D2	Lower Wonewoc	166-171	x	x	x	Bladder
MW-5D3	Lower Wonewoc/ Upper Eau Claire	225-235	x	x	x	GeoSub
MW-6S	Unconsolidated/ Upper Lone Rock	32-42	x		x	Bladder
MW-6D	Lower Lone Rock	66-71	x	x	x	Bladder
MW-7	Unconsolidated	25-35	x			NA
MW-8	Unconsolidated	24-34	x			NA
MW-9D	Upper Lone Rock	44-49	x		x	Peristaltic
MW-9D2	Lower Lone Rock	64-69	x	x	x	Peristaltic
MW-10S	Unconsolidated	11-21	x			NA
MW-11S	Unconsolidated	24-34	x			NA
MW-12S	Unconsolidated	3-13	x			NA
MW-17	Upper Wonewoc	160-170	x	x	x	Bladder
MW-18S	Unconsolidated	20-30	x			NA
MW-21D2	Upper/Lower Wonewoc	110-170	x			NA
MW-22S	Unconsolidated	25-35	x		x	Peristaltic
MW-22D	Upper Lone Rock	45-50	x	x	x	Bladder
MW-23S	Unconsolidated	25-35	x		x	Peristaltic
MW-23D	Upper Lone Rock	45-50	x	x	x	Bladder
MW-24	Upper Lone Rock	30-40	x			NA
MW-25D	Upper Wonewoc	120-130	x		x	Bladder
MW-25D2	Upper Wonewoc	160-170	x	x	x	Bladder
MW-26S	Unconsolidated	6.8-16.8	x			NA
MW-27D	Lower Wonewoc	130-140	x	x	x	Bladder
MW-27D2	Lower Wonewoc	170-180	x		x	Bladder
MW-28**	Unconsolidated	28-38	x			NA
MP-13 Port 1	Lower Wonewoc	163-167	x		x	Westbay
MP-13 Port 2	Lower Wonewoc	135-139	x		x	Westbay
MP-13 Port 3	Upper Wonewoc	121-125	x		x	Westbay
MP-13 Port 4	Upper Wonewoc	102-106	x		x	Westbay
MP-13 Port 5	Lower Lone Rock	81-85	x		x	Westbay
MP-13 Port 6	Lower Lone Rock	67-71	x		x	Westbay
MP-13 Port 7	Upper Lone Rock	44-48	x		x	Westbay

Table 16  
 WDNR Approved Performance Monitoring Plan - 2017  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

WELL/ POINT ID	BEDROCK UNIT	SCREENED INTERVAL (ft bgs)	APRIL & OCTOBER GAUGING	APRIL VOC SAMPLING	OCTOBER VOC SAMPLING	PUMP TYPE
MP-14 Port 1	Lower Wonewoc	170-178	x		x	Westbay
MP-14 Port 2	Lower Wonewoc	135-140	x	x	x	Westbay
MP-14 Port 3	Upper Wonewoc	100-105	x		x	Westbay
MP-14 Port 4	Lower Lone Rock	70-75	x			NA
MP-15 Port 1	Lower Wonewoc	177-187	x		x	Westbay
MP-15 Port 2	Lower Wonewoc	142-146	x		x	Westbay
MP-15 Port 3	Lower Wonewoc	120-125	x		x	Westbay
MP-15 Port 4	Upper Wonewoc	100-105	x		x	Westbay
MP-15 Port 5	Upper Wonewoc	88-92	x		x	Westbay
MP-16 Port 1	Lower Wonewoc	175-179	x		x	Westbay
MP-16 Port 2	Lower Wonewoc	140-144	x	x	x	Westbay
MP-16 Port 3	Upper Wonewoc	106-116	x		x	Westbay
MP-16 Port 4	Lower Lone Rock	80-84	x			NA
<b>Total Sample Points:</b>			<b>58</b>	<b>17</b>	<b>43</b>	

Notes:

\* = The GWE-1 influent sample results from the month of the sampling event will be used.

\*\* = MW-4S and MW-28 will be gauged during each semi-annual event.

Created By: K. Vater 2/17/17

Checked By: A. Stehn 2/20/17

Table 17  
Summary of Groundwater Elevations - October 2, 2017  
Madison Kipp Corporation  
201 Waubesa Street  
Madison, Wisconsin

WELL/BORING	LITHOLOGY	SCREEN INTERVAL (feet bls)	GROUND ELEVATION (feet amsl)	TOP OF CASING ELEVATION (feet amsl)	DATE	DEPTH TO WATER (feet btoc)	GROUNDWATER ELEVATION (feet amsl)
MW-01	Unconsolidated	14-24	861.71	861.08	10/2/2017	12.16	848.92
MW-02D	Upper Lone Rock	39-44	866.50	868.74	10/2/2017	20.32	848.42
MW-02S	Unconsolidated	19-29	866.34	868.94	10/2/2017	19.82	849.12
MW-03D	Upper Lone Rock	48-53	867.68	867.25	10/2/2017	19.81	847.44
MW-03D2	Lower Lone Rock	76-81	867.58	867.39	10/2/2017	22.15	845.24
MW-03D3	Lower Wonewoc/Upper Eau Claire	214-224	867.61	867.35	10/2/2017	23.46	843.89
MW-03S	Unconsolidated	19-29	867.87	867.41	10/2/2017	18.95	848.46
MW-04D	Lower Lone Rock	65-70	881.18	880.38	10/2/2017	31.40	848.98
MW-04D2	Lower Lone Rock	91-96	880.36	880.20	10/2/2017	31.82	848.38
MW-04S	Unconsolidated/ Upper Lone Rock	35-50	880.81	880.31	10/2/2017	28.96	851.35
MW-05D	Lower Lone Rock	75-80	872.58	872.10	10/2/2017	24.68	847.42
MW-05D2	Lower Wonewoc	165.8-170.8	872.59	872.20	10/2/2017	28.09	844.11
MW-05D3	Lower Wonewoc/Upper Eau Claire	225-235	872.34	871.89	10/2/2017	27.58	844.31
MW-05S	Upper Lone Rock	34-44	872.56	872.14	10/2/2017	23.95	848.19
MW-06D	Lower Lone Rock	65.5-70.5	877.11	876.69	10/2/2017	28.29	848.40
MW-06S	Unconsolidated/ Upper Lone Rock	31.4-41.4	877.20	876.69	10/2/2017	27.11	849.58
MW-07	Unconsolidated	25-35	870.91	870.42	10/2/2017	22.03	848.39
MW-08	Unconsolidated	24-34	867.69	866.78	10/2/2017	18.54	848.24
MW-09D	Upper Lone Rock	44-49	855.80	855.47	10/2/2017	9.25	846.22
MW-09D2	Lower Lone Rock	64-69	855.89	855.48	10/2/2017	9.45	846.03
MW-10S	Unconsolidated	11-21	864.88	864.42	10/2/2017	15.16	849.26
MW-11S	Unconsolidated	24-34	874.10	873.47	10/2/2017	24.79	848.68
MW-12S	Unconsolidated	3-13	859.78	859.41	10/2/2017	9.78	849.63
MW-17	Upper Wonewoc	160-170	877.26	876.65	10/2/2017	32.24	844.41
MW-18S	Unconsolidated	20-30	867.89	867.24	10/2/2017	18.60	848.64
MW-19D	Lower Lone Rock	60-90	867.44	866.75	10/2/2017	21.44	845.31
MW-19D2	Upper Wonewoc	110-140	867.44	866.71	10/2/2017	23.31	843.40
MW-20D	Lower Lone Rock	60-90	867.36	866.96	10/2/2017	21.18	845.78
MW-20D2	Upper Wonewoc	110-140	867.36	867.04	10/2/2017	23.64	843.40
MW-21D	Lower Lone Rock	60-90	867.77	867.49	10/2/2017	21.31	846.18
MW-21D2	Upper/Lower Wonewoc	110-170	867.77	867.46	10/2/2017	23.65	843.81
MW-22D	Upper Lone Rock	45-50	874.45	874.15	10/2/2017	25.79	848.36
MW-22S	Unconsolidated	25-35	874.45	874.12	10/2/2017	25.53	848.59



Table 17  
 Summary of Groundwater Elevations - October 2, 2017  
 Madison Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

WELL/BORING	LITHOLOGY	SCREEN INTERVAL (feet bls)	GROUND ELEVATION (feet amsl)	TOP OF CASING ELEVATION (feet amsl)	DATE	DEPTH TO WATER (feet btoc)	GROUNDWATER ELEVATION (feet amsl)
MW-23D	Upper Lone Rock	45-50	874.55	874.27	10/2/2017	24.77	849.50
MW-23S	Unconsolidated	25-35	874.55	874.20	10/2/2017	25.38	848.82
MW-24	Upper Lone Rock	30-40	876.66	876.41	10/2/2017	27.31	849.10
MW-25D	Upper Wonewoc	120-130	886.97	886.69	10/2/2017	41.95	844.74
MW-25D2	Upper Wonewoc	160-170	886.97	886.68	10/2/2017	41.52	845.16
MW-26S	Unconsolidated	6.85-16.85	857.51	856.61	10/2/2017	8.05	848.56
MW-27D	Lower Wonewoc	130-140	862.96	862.65	10/2/2017	17.44	845.21
MW-27D2	Lower Wonewoc	170-180	862.96	862.59	10/2/2017	17.40	845.19
MW-28	Unconsolidated	28-38	874.30	874.05	10/2/2017	25.21	848.84
MP-13	Upper Lone Rock	44-48	864.49	863.99	10/2/2017	16.90	847.09
MP-13	Lower Lone Rock	67-71	864.49	863.99	10/2/2017	18.81	845.18
MP-13	Lower Lone Rock	81-85	864.49	863.99	10/2/2017	19.39	844.60
MP-13	Upper Wonewoc	102-106	864.49	863.99	10/2/2017	20.22	843.77
MP-13	Upper Wonewoc	121-125	864.49	863.99	10/2/2017	20.29	843.70
MP-13	Lower Wonewoc	135-139	864.49	863.99	10/2/2017	20.33	843.66
MP-13	Lower Wonewoc	163-167	864.49	863.99	10/2/2017	20.07	843.92
MP-14	Lower Lone Rock	70-75	866.88	867.28	10/2/2017	18.15	849.13
MP-14	Upper Wonewoc	100-105	866.88	867.28	10/2/2017	21.39	845.89
MP-14	Lower Wonewoc	135-140	866.88	867.28	10/2/2017	21.93	845.35
MP-14	Lower Wonewoc	170-178	866.88	867.28	10/2/2017	22.27	845.01
MP-15	Upper Wonewoc	88-92	855.98	855.50	10/2/2017	10.22	845.28
MP-15	Upper Wonewoc	100-105	855.98	855.50	10/2/2017	10.16	845.34
MP-15	Lower Wonewoc	120-125	855.98	855.50	10/2/2017	10.23	845.27
MP-15	Lower Wonewoc	142-146	855.98	855.50	10/2/2017	10.37	845.13
MP-15	Lower Wonewoc	177-187	855.98	855.50	10/2/2017	10.46	845.04
MP-16	Lower Lone Rock	80-84	870.68	870.17	10/2/2017	22.98	847.19
MP-16	Upper Wonewoc	106-116	870.68	870.17	10/2/2017	25.42	844.75
MP-16	Lower Wonewoc	140-144	870.68	870.17	10/2/2017	25.65	844.52
MP-16	Lower Wonewoc	175-179	870.68	870.17	10/2/2017	26.07	844.10

Created By: Peggy Popp 1/23/18  
 Checked By: Ben Wachholz 1/29/2018

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-1 14 - 24 ft 04/08/2010	MW-1 14 - 24 ft 03/29/2011	MW-1 14 - 24 ft 04/11/2012	MW-1 14 - 24 ft 01/15/2013	MW-1 14 - 24 ft 04/21/2013	MW-1 14 - 24 ft 07/18/2013	MW-1 14 - 24 ft 10/09/2013	MW-1 14 - 24 ft 04/22/2014	MW-1 14 - 24 ft 10/23/2014	MW-1 14 - 24 ft 04/14/2015	MW-1 14 - 24 ft 10/21/2015	MW-1 14 - 24 ft 10/13/2016	MW-1 14 - 24 ft 10/04/2017	
<b>VOCs</b>																
1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.25	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 0.11
1,1,1-Trichloroethane	40	200	< 0.5	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.38	< 0.10	< 0.1
1,1,2-Trichloroethane	0.5	5	< 0.25	< 0.25	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 0.1
1,1-Dichloroethene	0.7	7	1.1	0.95	0.94 J	0.84 J	< 0.31	< 0.31	0.62 J	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 0.14
1,2,4-Trimethylbenzene	96	480	< 0.2	< 0.2	< 0.22	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 0.06
1,2-Dibromoethane	0.005	0.05	< 0.2	< 0.2	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 0.13
1,2-Dichlorobenzene	60	600	< 0.2	< 0.2	< 0.21	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	< 0.076
1,2-Dichloropropane	0.5	5	< 0.5	< 0.5	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.43	< 0.10	< 0.1
1,2,3-Trichlorobenzene	NE	NE	< 0.25	< 0.25	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.045
1,2,4-Trichlorobenzene	14	70	< 0.25	< 0.25	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	< 0.077
1,3,5-Trimethylbenzene	96	480	< 0.2	< 0.2	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 0.075
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 3
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 0.95
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 0.77
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	7.5 BJ
Benzene	0.5	5	< 0.2	< 0.2	< 0.12	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.089	< 0.089
Bromodichloromethane	0.06	0.6	< 0.2	< 0.2	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 0.077
Bromoform	0.44	4.4	< 0.2	< 0.2	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.088
Bromomethane	1	10	< 0.5	< 0.5	< 0.49	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 0.59	< 0.59
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.053	< 0.053
Carbon tetrachloride	0.5	5	< 0.8	< 0.8	< 0.28	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.038
Chloroform	0.6	6	< 0.2	< 0.2	< 0.25	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.37	< 0.062	< 0.062
Chloromethane	3	30	< 0.3	< 0.3	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	0.75 BJ	2.2
cis-1,2-Dichloroethene	7	70	51	58	38	41	23	25	17	25	22	20	8	3.6	2.8	2.8
Dichlorodifluoromethane	200	1000	< 0.5	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.54	< 0.11	< 0.11
Ethylbenzene	140	700	< 0.5	< 0.5	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 0.054
Isopropylbenzene	NE	NE	< 0.2	< 0.2	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.081
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.057	< 0.057
Methyl tert-butyl ether	12	60	< 0.5	< 0.5	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.39	< 0.14	< 0.14
Methylene chloride	0.5	5	< 1	< 1	8.5	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 0.14	< 0.14
Naphthalene	10	100	< 0.25	< 0.25	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 0.088
n-Butylbenzene	NE	NE	< 0.2	< 0.2	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.14
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21
n-Propylbenzene	NE	NE	< 0.5	< 0.5	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.1
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.058	< 0.058
p-Isopropyltoluene	NE	NE	< 0.2	< 0.2	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.085
sec-Butylbenzene	NE	NE	< 0.25	< 0.25	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.13
Styrene	10	100	< 0.5	< 0.5	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.39	< 0.065	0.07 BJ
tert-Butylbenzene	NE	NE	< 0.2	< 0.2	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 0.12
Tetrachloroethene	0.5	5	32	9	23	22	10	11	18	19	16	16	4.4	5.5	4	4
Toluene	160	800	< 0.5	< 0.5	< 0.15	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	< 0.053	< 0.053
trans-1,2-Dichloroethene	20	100	0.97	0.93	0.77 J	0.78 J	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	0.22 J	0.16 J
Trichloroethene	0.5	5	33	20	24	25	23	18	23	28	19	21	6.2	3.8	2	2
Vinyl chloride	0.02	0.2	1.5	1.1	0.86	0.63	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.16	< 0.16
Xylenes, Total	400	2000	< 0.5	< 0.5	< 0.3	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.22	< 0.058	< 0.12
<b>Total PCBs</b>																
Aroclor-1016	0.003	0.03	NA	NA	NA	< 0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	< 0.091	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	NA	NA	< 0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	NA	NA	< 0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>																
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>																
Total Dissolved Solids	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-2S 19 - 29 ft 04/08/2010	MW-2S 19 - 29 ft 03/30/2011	MW-2S 19 - 29 ft 04/11/2012	MW-2S 19 - 29 ft 01/14/2013	MW-2S 19 - 29 ft 04/20/2013	MW-2S 19 - 29 ft 07/18/2013	MW-2S 19 - 29 ft 10/10/2013	MW-2S 19 - 29 ft 04/17/2014	MW-2S 19 - 29 ft 10/16/2014
<b>VOCS</b>												
	1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.25	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
	1,1,1-Trichloroethane	40	200	< 0.5	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20
	1,1,2-Trichloroethane	0.5	5	< 0.25	< 0.25	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
	1,1-Dichloroethane	0.7	7	< 0.5	< 0.5	< 0.29	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
	1,2,4-Trimethylbenzene	96	480	< 0.2	< 0.2	< 0.22	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
	1,2-Dibromoethane	0.005	0.05	< 0.2	< 0.2	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
	1,2-Dichlorobenzene	60	600	< 0.2	< 0.2	< 0.21	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27
	1,2-Dichloropropane	0.5	5	< 0.5	< 0.5	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20
	1,2,3-Trichlorobenzene	NE	NE	< 0.25	< 0.25	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
	1,2,4-Trichlorobenzene	14	70	< 0.25	< 0.25	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
	1,3,5-Trimethylbenzene	96	480	< 0.2	< 0.2	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
	2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Benzene	0.5	5	< 0.2	< 0.2	< 0.12	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074
	Bromodichloromethane	0.06	0.6	< 0.2	< 0.2	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
	Bromoform	0.44	4.4	< 0.2	< 0.2	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
	Bromomethane	1	10	< 0.5	< 0.5	< 0.49	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
	Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Carbon tetrachloride	0.5	5	< 0.8	< 0.8	< 0.28	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
	Chloroform	0.6	6	< 0.2	< 0.2	< 0.25	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20
	Chloromethane	3	30	< 0.3	< 0.3	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
	cis-1,2-Dichloroethene	7	70	< 0.5	< 0.5	< 0.22	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
	Dichlorodifluoromethane	200	1000	< 0.5	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20
	Ethylbenzene	140	700	< 0.5	< 0.5	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	Isopropylbenzene	NE	NE	< 0.2	< 0.2	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
	m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Methyl tert-butyl ether	12	60	< 0.5	< 0.5	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
	Methylene chloride	0.5	5	< 1	< 1	<b>8.6</b>	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68
	Naphthalene	10	100	< 0.25	< 0.25	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16
	n-Butylbenzene	NE	NE	< 0.2	< 0.2	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA
	n-Propylbenzene	NE	NE	< 0.5	< 0.5	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
	o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
	p-Isopropyltoluene	NE	NE	< 0.2	< 0.2	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
	sec-Butylbenzene	NE	NE	< 0.25	< 0.25	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
	Styrene	10	100	< 0.5	< 0.5	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10
	tert-Butylbenzene	NE	NE	< 0.2	< 0.2	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
	Tetrachloroethene	0.5	5	<b>1.6</b>	<b>1.3</b>	<b>1.2</b>	<b>1.3</b>	<b>1.3</b>	<b>0.81 J</b>	<b>1.1</b>	<b>1.3</b>	<b>1</b>
	Toluene	160	800	< 0.5	< 0.5	< 0.15	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
	trans-1,2-Dichloroethene	20	100	< 0.5	< 0.5	< 0.27	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
	Trichloroethene	0.5	5	< 0.2	< 0.2	< 0.18	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19
	Vinyl chloride	0.02	0.2	< 0.2	< 0.2	< 0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10
	Xylenes, Total	400	2000	< 0.5	< 0.5	< 0.3	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068
<b>Total PCBs</b>												
	Aroclor-1016	0.003	0.03	NA	NA	NA	< 0.17	NA	NA	NA	NA	NA
	Aroclor-1232	0.003	0.03	NA	NA	NA	< 0.091	NA	NA	NA	NA	NA
	Aroclor-1242	0.003	0.03	NA	NA	NA	< 0.13	NA	NA	NA	NA	NA
	Aroclor-1248	0.003	0.03	NA	NA	NA	< 0.11	NA	NA	NA	NA	NA
	Total Detected PCBs	0.003	0.03	NA	NA	NA	ND	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>												
	Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>												
	Total Dissolved Solids	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Total Suspended Solids (TSS)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-2D 39 - 44 ft 04/08/2010	MW-2D 39 - 44 ft 10/01/2010	MW-2D 39 - 44 ft 03/30/2011	MW-2D 39 - 44 ft 04/11/2012	MW-2D 39 - 44 ft 01/15/2013	MW-2D 39 - 44 ft 04/20/2013	MW-2D 39 - 44 ft 07/18/2013	MW-2D 39 - 44 ft 10/10/2013	MW-2D 39 - 44 ft 04/17/2014	MW-2D 39 - 44 ft 10/16/2014	MW-2D 39 - 44 ft 04/14/2015	MW-2D 39 - 44 ft 10/21/2015	MW-2D 39 - 44 ft 01/25/2016	MW-2D 39 - 44 ft 04/21/2016	MW-2D 39 - 44 ft 07/19/2016	MW-2D 39 - 44 ft 10/13/2016	MW-2D 39 - 44 ft 1/19/2017	MW-2D 39 - 44 ft 04/12/2017	MW-2D 39 - 44 ft 10/04/2017
<b>VOCs</b>																						
1,1,1,2-Tetrachloroethane	7	70		< 8	< 0.25	< 4	< 0.31	< 0.5	< 0.5	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 0.46	< 0.55	< 1.1	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
1,1,1-Trichloroethane	40	200		< 16	< 0.5	< 8	< 0.26	< 0.4	< 0.4	< 0.2	< 0.20	< 0.20	< 0.40	< 0.20	< 0.38	< 0.50	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1
1,1,2-Trichloroethane	0.5	5		< 8	< 0.25	< 4	< 0.3	< 0.56	< 0.56	< 0.28	< 0.28	< 0.28	< 0.56	< 0.28	< 0.35	< 0.50	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1
1,1-Dichloroethene	0.7	7		< 16	< 0.5	< 8	< 0.29	< 0.62	< 0.62	< 0.31	< 0.31	< 0.31	< 0.62	< 0.31	< 0.39	< 0.70	< 1.4	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
1,2,4-Trimethylbenzene	96	480		< 6.4	< 0.2	< 3.2	< 0.22	< 0.28	< 0.28	< 0.14	< 0.14	< 0.14	< 0.28	< 0.14	< 0.36	< 0.30	< 0.60	< 0.060	< 0.060	< 0.060	< 0.060	< 0.06
1,2-Dibromoethane	0.005	0.05		< 6.4	< 0.2	< 3.2	< 0.45	< 0.72	< 0.72	< 0.36	< 0.36	< 0.36	< 0.72	< 0.36	< 0.39	< 0.65	< 1.3	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
1,2-Dichlorobenzene	60	600		< 6.4	< 0.2	< 3.2	< 0.21	< 0.54	< 0.54	< 0.27	< 0.27	< 0.27	< 0.54	< 0.27	< 0.33	0.45 J	< 0.76	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076
1,2-Dichloropropane	0.5	5		< 16	< 0.5	< 8	< 0.36	< 0.4	< 0.4	< 0.2	< 0.20	< 0.20	< 0.40	< 0.20	< 0.43	< 0.50	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1
1,2,3-Trichlorobenzene	NE	NE		< 8	< 0.25	< 4	< 0.36	< 0.48	< 0.48	< 0.24	< 0.24	< 0.24	< 0.48	< 0.24	< 0.46	< 0.23	< 0.45	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045
1,2,4-Trichlorobenzene	14	70		< 8	< 0.25	< 4	< 0.22	< 0.62	< 0.62	< 0.31	< 0.31	< 0.31	< 0.62	< 0.31	< 0.34	0.85 J	< 0.77	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077
1,3,5-Trimethylbenzene	96	480		< 6.4	< 0.2	< 3.2	< 0.23	< 0.36	< 0.36	< 0.18	< 0.18	< 0.18	< 0.36	< 0.18	< 0.25	< 0.38	< 0.75	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 15	< 30	< 3.0	< 3.0	< 3.0	< 3.0	< 3
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.8	< 9.5	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.9	< 7.7	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 17	< 34	< 3.4	< 3.4	< 3.4	15 BJ	< 3.4
Benzene	0.5	5		< 6.4	< 0.2	< 3.2	< 0.12	< 0.15	< 0.15	< 0.074	< 0.074	< 0.074	< 0.15	< 0.074	< 0.15	< 0.45	< 0.89	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089
Bromodichloromethane	0.06	0.6		< 6.4	< 0.2	< 3.2	< 0.23	< 0.34	< 0.34	< 0.17	< 0.17	< 0.17	< 0.34	< 0.17	< 0.37	< 0.39	< 0.77	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077
Bromofrom	0.44	4.4		< 6.4	< 0.2	< 3.2	< 0.45	< 0.56	< 0.56	< 0.28	< 0.28	< 0.28	< 0.56	< 0.28	< 0.48	< 0.44	< 0.88	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
Bromomethane	1	10		< 16	< 0.5	< 8	< 0.49	< 0.62	< 0.62	< 0.31	< 0.31	< 0.31	< 0.62	< 0.31	< 0.80	< 3.0	< 5.9	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.27	< 0.53	< 0.053	< 0.053	< 0.053	< 0.053	< 0.053
Carbon tetrachloride	0.5	5		< 26	< 0.8	< 13	< 0.28	< 0.52	< 0.52	< 0.26	< 0.26	< 0.26	< 0.52	< 0.26	< 0.38	< 0.19	< 0.38	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038
Chloroform	0.6	6		< 6.4	< 0.2	< 3.2	< 0.25	< 0.4	< 0.4	< 0.2	< 0.20	< 0.20	< 0.40	< 0.20	< 0.37	< 0.31	< 0.62	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062
Chloromethane	3	30		< 9.6	< 0.3	< 4.8	< 0.24	< 0.36	< 0.36	< 0.18	< 0.18	< 0.18	< 0.36	< 0.18	< 0.32	< 0.80	< 1.6	0.20 J	0.81 BJ	0.33 BJ	0.30 J+	1.4 J
cis-1,2-Dichloroethene	7	70		< 16	0.67	< 8	< 0.22	< 0.24	< 0.24	< 0.12	< 0.12	< 0.12	< 0.24	< 0.12	< 0.41	< 0.55	< 1.1	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Dichlorodifluoromethane	200	1000		< 16	< 0.5	< 8	< 0.26	< 0.4	< 0.4	< 0.2	< 0.20	< 0.20	< 0.40	< 0.20	< 0.54	< 0.55	< 1.1	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Ethylbenzene	140	700		< 16	< 0.5	< 8	< 0.14	< 0.26	< 0.26	< 0.13	< 0.13	< 0.13	< 0.26	< 0.13	< 0.18	< 0.27	< 0.54	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054
Isopropylbenzene	NE	NE		< 6.4	< 0.2	< 3.2	< 0.21	< 0.28	< 0.28	< 0.14	< 0.14	< 0.14	< 0.28	< 0.14	< 0.39	< 0.41	< 0.81	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.29	< 0.57	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057
Methyl tert-butyl ether	12	60		< 16	< 0.5	< 8	< 0.28	< 0.48	< 0.48	< 0.24	< 0.24	< 0.24	< 0.48	< 0.24	< 0.39	< 0.70	< 1.4	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
Methylene chloride	0.5	5		< 32	< 1	< 16	8.1	< 1.4	< 1.4	< 0.68	< 0.68	< 0.68	< 1.4	< 0.68	< 1.6	< 0.70	< 1.4	< 0.14	0.82 BJ	< 0.14	< 0.14	< 0.14
Naphthalene	10	100		< 8	< 0.25	< 4	< 0.24	< 0.32	< 0.32	< 0.16	< 0.16	< 0.16	< 0.32	< 0.16	< 0.34	< 0.44	< 0.88	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
n-Butylbenzene	NE	NE		< 6.4	< 0.2	< 3.2	< 0.21	< 0.26	< 0.26	< 0.13	< 0.13	< 0.13	< 0.26	< 0.13	< 0.39	< 0.70	< 1.4	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.1	< 2.1	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
n-Propylbenzene	NE	NE		< 16	< 0.5	< 8	< 0.19	< 0.26	< 0.26	< 0.13	< 0.13	< 0.13	< 0.26	< 0.13	< 0.41	< 0.50	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.29	< 0.58	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058
p-Isopropyltoluene	NE	NE		< 6.4	< 0.2	< 3.2	< 0.24	< 0.34	< 0.34	< 0.17	< 0.17	< 0.17	< 0.34	< 0.17	< 0.36	< 0.43	< 0.85	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085
sec-Butylbenzene	NE	NE		< 8	< 0.25	< 4	< 0.19	< 0.3	< 0.3	< 0.15	< 0.15	< 0.15	< 0.30	< 0.15	< 0.40	< 0.65	< 1.3	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
Styrene	10	100		< 16	< 0.5	< 8	< 0.26	< 0.2	< 0.2	< 0.1	< 0.1	< 0.1	< 0.20	< 0.10	< 0.39	< 0.33	< 0.65	< 0.065	< 0.065	< 0.065	< 0.065	< 0.065
tert-Butylbenzene	NE	NE		< 6.4	< 0.2	< 3.2	< 0.24	< 0.28	< 0.28	< 0.14	< 0.14	< 0.14	< 0.28	< 0.14	< 0.40	< 0.60	< 1.2	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
Tetrachloroethene	0.5	5		1400	1300	1000	610	720	910	580	440	450	540	250	210	85	290	81	28	22	19	38
Toluene	160	800		< 16	< 0.5	< 8	< 0.15	< 0.22	< 0.22	< 0.11	< 0.11	< 0.11	< 0.22	< 0.11	< 0.15	0.30 J	< 0.53	< 0.053	0.090 J	0.090 BJ	< 0.053	< 0.053
trans-1,2-Dichloroethene	20	100		< 16	< 0.5	< 8	< 0.27	< 0.5	< 0.5	< 0.25	< 0.25	< 0.25	< 0.50	< 0.25	< 0.35	< 0.55	< 1.1	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Trichloroethene	0.5	5		20	16	9.8	5.4	5.1	6.4	4.1	3	2.5	2.1	1.2	0.73	0.60 J	< 0.62	0.24 J	0.10 J	0.12 BJ	0.12 J	0.09 J
Vinyl chloride	0.02	0.2		< 6.4	< 0.2	< 3.2	< 0.13	< 0.2	< 0.2	< 0.1	< 0.1	< 0.10	< 0.20									

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-3S 19 - 29 ft 04/07/2010	MW-3S 19 - 29 ft 03/29/2011	MW-3S 19 - 29 ft 04/12/2012	MW-3S 19 - 29 ft 11/30/2012	MW-3S 19 - 29 ft 12/18/2012	MW-3S 19 - 29 ft 12/19/2012	MW-3S 19 - 29 ft 12/28/2012	MW-3S 19 - 29 ft 01/03/2013	MW-3S 19 - 29 ft 01/15/2013	MW-3S 19 - 29 ft 01/15/2013	MW-3S 19 - 29 ft 01/31/2013	MW-3S 19 - 29 ft 02/12/2013	MW-3S 19 - 29 ft 02/12/2013	MW-3S <sup>1</sup> 19 - 29 ft 02/12/2013	MW-3S <sup>1,2</sup> 19 - 29 ft 02/12/2013	MW-3S 19 - 29 ft 02/28/2013	MW-3S <sup>1</sup> 19 - 29 ft 03/12/2013	MW-3S <sup>1</sup> 19 - 29 ft 04/16/2013	MW-3S 19 - 29 ft 07/16/2013	MW-3S 19 - 29 ft 10/10/2013	MW-3S <sup>1</sup> 19 - 29 ft 04/16/2014	MW-3S 19 - 29 ft 10/22/2014	MW-3S 19 - 29 ft 04/13/2015	MW-3S 19 - 29 ft 10/21/2015	MW-3S 19 - 29 ft 10/13/2016	MW-3S 19 - 29 ft 10/05/2017		
<b>VOCs</b>																															
1,1,1,2-Tetrachloroethane	7	70		< 8	< 6.3	< 1.6	< 1.3	NA	NA	NA	NA	NA	< 0.25	NA	NA	NA	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.5	< 0.5	< 1.3	< 0.25	< 1.3	< 0.92	< 2.2	< 2.8		
1,1,1-Trichloroethane	40	200		< 16	< 13	< 1.3	< 1	NA	NA	NA	NA	NA	< 0.2	NA	NA	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	< 0.4	< 0.4	< 1.0	< 0.20	< 1.0	< 0.76	< 2.0	< 2.5		
1,1,2-Trichloroethane	0.5	5		< 8	< 6.3	< 1.5	< 1.4	NA	NA	NA	NA	NA	< 0.28	NA	NA	NA	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.56	< 0.56	< 1.4	< 0.28	< 1.4	< 0.70	< 2.0	< 2.5		
1,1-Dichloroethane	0.7	7		< 16	< 13	< 1.5	< 1.6	NA	NA	NA	NA	NA	< 0.31	NA	NA	NA	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.62	< 0.62	< 1.6	< 0.31	< 1.6	< 0.78	< 2.8	< 3.5		
1,2,4-Trimethylbenzene	96	480		< 6.4	< 5	< 1.1	< 0.7	NA	NA	NA	NA	NA	< 0.14	NA	NA	NA	< 0.14	< 0.14	NA	< 0.14	< 0.14	< 0.28	< 0.28	< 0.70	< 0.14	< 0.70	< 0.72	< 1.2	< 1.5		
1,2-Dibromoethane	0.005	0.05		< 6.4	< 5	< 2.3	< 1.8	NA	NA	NA	NA	NA	< 0.36	NA	NA	NA	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.72	< 0.72	< 1.8	< 0.36	< 1.8	< 0.77	< 2.6	< 3.3		
1,2-Dichlorobenzene	60	600		< 6.4	< 5	< 1.1	< 1.4	NA	NA	NA	NA	NA	< 0.27	NA	NA	NA	< 0.27	< 0.27	NA	< 0.27	< 0.27	< 0.54	< 0.54	< 1.4	< 0.27	< 1.4	< 0.67	< 1.5	< 1.9		
1,2-Dichloropropane	0.5	5		< 16	< 13	< 1.8	< 1	NA	NA	NA	NA	NA	< 0.2	NA	NA	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	< 0.4	< 0.4	< 1.0	< 0.20	< 1.0	< 0.86	< 2.0	< 2.5		
1,2,3-Trichlorobenzene	NE	NE		< 8	< 6.3	< 1.8	< 1.2	NA	NA	NA	NA	NA	< 0.24	NA	NA	NA	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.48	< 0.48	< 1.2	< 0.24	< 1.2	< 0.92	< 0.90	< 1.1		
1,2,4-Trichlorobenzene	14	70		< 8	< 6.3	< 1.1	< 1.6	NA	NA	NA	NA	NA	< 0.31	NA	NA	NA	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.62	< 0.62	< 1.6	< 0.31	< 1.6	< 0.68	< 1.5	< 1.9		
1,3,5-Trimethylbenzene	96	480		< 6.4	< 5	< 1.2	< 0.9	NA	NA	NA	NA	NA	< 0.18	NA	NA	NA	< 0.18	< 0.18	NA	< 0.18	< 0.18	< 0.36	< 0.36	< 0.90	< 0.18	< 0.90	< 0.51	< 1.5	< 1.9		
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 60	< 75	
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 19	< 24	
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 15	< 19	
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 68	< 85	
Benzene	0.5	5		< 6.4	< 5	< 0.6	1.5 J	NA	NA	NA	NA	NA	0.42 J	NA	NA	NA	0.88	0.9	NA	1	0.6	0.70 J	1	< 0.37	0.67	< 0.37	< 0.29	< 1.8	< 2.2		
Bromodichloromethane	0.06	0.6		< 6.4	< 5	< 1.2	< 0.85	NA	NA	NA	NA	NA	< 0.17	NA	NA	NA	< 0.17	< 0.17	NA	< 0.17	< 0.17	< 0.34	< 0.34	< 0.85	< 0.17	< 0.85	< 0.74	< 1.5	< 1.9		
Bromoform	0.44	4.4		< 6.4	< 5	< 2.3	< 1.4	NA	NA	NA	NA	NA	< 0.28	NA	NA	NA	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.56	< 0.56	< 1.4	< 0.28	< 1.4	< 0.97	< 1.8	< 2.2		
Bromomethane	1	10		< 16	< 13	< 2.5	< 1.6	NA	NA	NA	NA	NA	< 0.31	NA	NA	NA	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.62	< 0.62	< 1.6	< 0.31	< 1.6	< 1.6	< 1.2	< 1.5		
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.1	< 1.3	
Carbon tetrachloride	0.5	5		< 26	< 20	< 1.4	< 1.3	NA	NA	NA	NA	NA	< 0.26	NA	NA	NA	< 0.26	< 0.26	NA	< 0.26	< 0.26	< 0.52	< 0.52	< 1.3	< 0.26	< 1.3	< 0.77	< 0.76	< 0.95		
Chloroform	0.6	6		< 6.4	< 5	3.7 J	5	NA	NA	NA	NA	NA	1.6	NA	NA	NA	3	3.2	NA	4.1	2.7	2.8	3.7	3.4 J	2.4	< 1.0	3	< 1.2	< 1.6		
Chloromethane	3	30		< 9.6	< 7.5	< 1.2	< 0.9	NA	NA	NA	NA	NA	< 0.18	NA	NA	NA	< 0.18	< 0.18	NA	< 0.18	< 0.18	< 0.36	< 0.36	< 0.90	< 0.18	< 0.90	< 0.64	11 B J	< 4		
cis-1,2-Dichloroethene	7	70		83	37	89	98	NA	NA	NA	NA	NA	< 0.12	NA	NA	NA	1.6	1.8	NA	5.0	< 0.12	14	58	< 0.60	35	54	36	29	20		
Dichlorodifluoromethane	200	1000		< 16	< 13	< 1.3	< 1	NA	NA	NA	NA	NA	< 0.2	NA	NA	NA	< 0.2	< 0.2	NA	< 0.2	< 0.2	< 0.4	< 0.4	< 1.0	< 0.20	< 1.0	< 1.1	< 2.2	< 2.8		
Ethylbenzene	140	700		< 16	< 13	< 0.7	< 0.65	NA	NA	NA	NA	NA	0.36 J	NA	NA	NA	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.26	< 0.26	< 0.65	< 0.13	< 0.65	< 0.37	< 1.1	< 1.4		
Isopropylbenzene	NE	NE		< 6.4	< 5	< 1.1	< 0.7	NA	NA	NA	NA	NA	< 0.14	NA	NA	NA	< 0.14	< 0.14	NA	< 0.14	< 0.14	< 0.28	< 0.28	< 0.70	< 0.14	< 0.70	< 0.77	< 1.6	< 2		
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.1	< 1.4	
Methyl tert-butyl ether	12	60		< 16	< 13	< 1.4	< 1.2	NA	NA	NA	NA	NA	< 0.24	NA	NA	NA	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.48	< 0.48	< 1.2	< 0.24	< 1.2	< 0.79	< 2.8	< 3.5		
Methylene chloride	0.5	5		< 32	< 25	< 3.2	< 3.4	NA	NA	NA	NA	NA	< 0.68	NA	NA	NA	< 0.68	< 0.68	NA	< 0.68	< 0.68	< 1.4	< 1.4	< 3.4	< 0.68	< 3.4	17	< 2.8	< 3.5		
Naphthalene	10	100		< 8	< 6.3	< 1.2	< 0.8	NA	NA	NA	NA	NA	< 0.16	NA	NA	NA	< 0.16	< 0.16	NA	< 0.16	< 0.16	< 0.32	< 0.32	< 0.80	< 0.16	< 0.80	< 0.67	< 1.8	< 2.2		
n-Butylbenzene	NE	NE		< 6.4	< 5	< 1.1	< 0.65	NA	NA	NA	NA	NA	< 0.13	NA	NA	NA	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.26	< 0.26	< 0.65	< 0.13	< 0.65	< 0.78	< 2.8	< 3.5		
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.2	< 5.3		
n-Propylbenzene	NE	NE		< 16	< 13	< 0.95	< 0.65	NA	NA	NA	NA	NA	< 0.13	NA	NA	NA	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.26	< 0.26	< 0.65	< 0.13	< 0.65	< 0.83	< 2.0	< 2.5		
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.2	< 1.5	
p-Isopropyltoluene	NE	NE		< 6.4	< 5	< 1.2	< 0.85	NA	NA	NA	NA	NA	< 0.17	NA	NA	NA	< 0.17	< 0.17	NA	< 0.17	< 0.17	< 0.34	< 0.34	< 0.85	< 0.17	< 0.85	< 0.72	< 1.7	< 2.1		
sec-Butylbenzene	NE	NE		< 8	< 6.3	< 0.95	< 0.75	NA	NA	NA	NA	NA	< 0.15	NA	NA	NA	< 0.15	< 0.15	NA	< 0.15	< 0.15	< 0.3	< 0.3	< 0.75	< 0.15	< 0.75	< 0.80	< 2.6	< 3.3		
Styrene	10	100		< 16	< 13	< 1.3	< 0.5	NA	NA	NA	NA	NA	< 0.1	NA	NA	NA	< 0.1	< 0.1	NA	< 0.1	< 0.1	< 0.2	< 0.2	< 0.50	< 0.10	< 0.50	< 0.77	< 1.3	< 1.6		
tert-Butylbenzene	NE	NE		< 6.4	< 5	< 1.2	< 0.7	NA	NA	NA	NA	NA	< 0.14	NA	NA	NA	< 0.14	< 0.14	NA	< 0.14	< 0.14	<									

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-3D 48 - 53 ft 04/07/2010	MW-3D 48 - 53 ft 10/01/2010	MW-3D 48 - 53 ft 03/30/2011	MW-3D 48 - 53 ft 04/12/2012	MW-3D 48 - 53 ft 11/30/2012	MW-3D 48 - 53 ft 12/19/2012	MW-3D 48 - 53 ft 12/28/2012	MW-3D 48 - 53 ft 01/03/2013	MW-3D 48 - 53 ft 01/16/2013	MW-3D 48 - 53 ft 01/31/2013	MW-3D 48 - 53 ft 02/12/2013	MW-3D 48 - 53 ft 02/12/2013	MW-3D 48 - 53 ft 02/28/2013	MW-3D 48 - 53 ft 03/13/2013	MW-3D 48 - 53 ft 04/16/2013
<b>VOCS</b>																		
1,1,1,2-Tetrachloroethane	7	70		< 8	< 0.25	< 5	< 0.31	< 1.3	NA	NA	NA	< 0.25	NA	NA	< 0.25	NA	< 0.25	< 0.25
1,1,1-Trichloroethane	40	200		< 16	< 0.5	< 10	< 0.26	< 1	NA	NA	NA	< 0.2	NA	NA	< 0.2	NA	< 0.2	< 0.2
1,1,2-Trichloroethane	0.5	5		< 8	< 0.25	< 5	< 0.3	< 1.4	NA	NA	NA	< 0.28	NA	NA	< 0.28	NA	< 0.28	< 0.28
1,1-Dichloroethane	0.7	7		< 16	< 0.5	< 10	< 0.29	< 1.6	NA	NA	NA	< 0.31	NA	NA	< 0.31	NA	< 0.31	< 0.31
1,2,4-Trimethylbenzene	96	480		< 6.4	< 0.2	< 4	< 0.22	< 0.7	NA	NA	NA	< 0.14	NA	NA	< 0.14	NA	< 0.14	< 0.14
1,2-Dibromoethane	0.005	0.05		< 6.4	< 0.2	< 4	< 0.45	< 1.8	NA	NA	NA	< 0.36	NA	NA	< 0.36	NA	< 0.36	< 0.36
1,2-Dichlorobenzene	60	600		< 6.4	< 0.2	< 4	< 0.21	< 1.4	NA	NA	NA	< 0.27	NA	NA	< 0.27	NA	< 0.27	< 0.27
1,2-Dichloropropane	0.5	5		< 16	< 0.5	< 10	< 0.36	< 1	NA	NA	NA	< 0.2	NA	NA	< 0.2	NA	< 0.2	< 0.2
1,2,3-Trichlorobenzene	NE	NE		< 8	< 0.25	< 5	< 0.36	< 1.2	NA	NA	NA	< 0.24	NA	NA	< 0.24	NA	< 0.24	< 0.24
1,2,4-Trichlorobenzene	14	70		< 8	< 0.25	< 5	< 0.22	< 1.6	NA	NA	NA	< 0.31	NA	NA	< 0.31	NA	< 0.31	< 0.31
1,3,5-Trimethylbenzene	96	480		< 6.4	< 0.2	< 4	< 0.23	< 0.9	NA	NA	NA	< 0.18	NA	NA	< 0.18	NA	< 0.18	< 0.18
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.5	5		< 6.4	0.31	< 4	0.39 J	< 0.37	NA	NA	NA	0.32 J	NA	NA	0.29 J	NA	< 0.074	0.27 J
Bromodichloromethane	0.06	0.6		< 6.4	< 0.2	< 4	< 0.23	< 0.85	NA	NA	NA	< 0.17	NA	NA	< 0.17	NA	< 0.17	< 0.17
Bromoform	0.44	4.4		< 6.4	< 0.2	< 4	< 0.45	< 1.4	NA	NA	NA	< 0.28	NA	NA	< 0.28	NA	< 0.28	< 0.28
Bromomethane	1	10		< 16	< 0.5	< 10	< 0.49	< 1.6	NA	NA	NA	< 0.31	NA	NA	< 0.31	NA	< 0.31	< 0.31
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.5	5		< 26	< 0.8	< 16	< 0.28	< 1.3	NA	NA	NA	< 0.26	NA	NA	< 0.26	NA	< 0.26	< 0.26
Chloroform	0.6	6		< 6.4	<b>0.78</b>	< 4	<b>0.93 J</b>	< 1	NA	NA	NA	<b>0.89 J</b>	NA	NA	< 0.2	NA	< 0.2	< 0.2
Chloromethane	3	30		< 9.6	< 0.3	< 6	< 0.24	< 0.9	NA	NA	NA	< 0.18	NA	NA	< 0.18	NA	< 0.18	< 0.18
cis-1,2-Dichloroethene	7	70		<b>510</b>	<b>310</b>	<b>300</b>	<b>350</b>	<b>520</b>	NA	NA	NA	<b>290</b>	NA	NA	<b>200</b>	NA	<b>54</b>	<b>210</b>
Dichlorodifluoromethane	200	1000		< 16	< 0.5	< 10	< 0.26	< 1	NA	NA	NA	< 0.2	NA	NA	< 0.2	NA	< 0.2	< 0.2
Ethylbenzene	140	700		< 16	< 0.5	< 10	< 0.14	< 0.65	NA	NA	NA	< 0.13	NA	NA	< 0.13	NA	< 0.13	< 0.13
Isopropylbenzene	NE	NE		< 6.4	< 0.2	< 4	< 0.21	< 0.7	NA	NA	NA	< 0.14	NA	NA	< 0.14	NA	< 0.14	< 0.14
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	12	60		< 16	< 0.5	< 10	< 0.28	< 1.2	NA	NA	NA	< 0.24	NA	NA	< 0.24	NA	< 0.24	< 0.24
Methylene chloride	0.5	5		< 32	< 1	< 20	< 0.63	< 3.4	NA	NA	NA	< 0.68	NA	NA	< 0.68	NA	< 0.68	< 0.68
Naphthalene	10	100		< 8	< 0.25	< 5	< 0.24	< 0.8	NA	NA	NA	< 0.16	NA	NA	< 0.16	NA	< 0.16	< 0.16
n-Butylbenzene	NE	NE		< 6.4	< 0.2	< 4	< 0.21	< 0.65	NA	NA	NA	< 0.13	NA	NA	< 0.13	NA	< 0.13	< 0.13
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NE		< 16	< 0.5	< 10	< 0.19	< 0.65	NA	NA	NA	< 0.13	NA	NA	< 0.13	NA	< 0.13	< 0.13
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NE		< 6.4	< 0.2	< 4	< 0.24	< 0.85	NA	NA	NA	< 0.17	NA	NA	< 0.17	NA	< 0.17	< 0.17
sec-Butylbenzene	NE	NE		< 8	< 0.25	< 5	< 0.19	< 0.75	NA	NA	NA	< 0.15	NA	NA	< 0.15	NA	< 0.15	< 0.15
Styrene	10	100		< 16	< 0.5	< 10	< 0.26	< 0.5	NA	NA	NA	< 0.1	NA	NA	< 0.1	NA	< 0.1	< 0.1
tert-Butylbenzene	NE	NE		< 6.4	< 0.2	< 4	< 0.24	< 0.7	NA	NA	NA	< 0.14	NA	NA	< 0.14	NA	< 0.14	< 0.14
Tetrachloroethene	0.5	5		<b>1700</b>	<b>1500</b>	<b>1200</b>	<b>1100</b>	<b>1800</b>	NA	NA	NA	<b>660</b>	NA	NA	<b>760</b>	NA	<b>150</b>	<b>740</b>
Toluene	160	800		< 16	< 0.5	< 10	< 0.15	< 0.55	NA	NA	NA	< 0.11	NA	NA	< 0.11	NA	< 0.11	< 0.11
trans-1,2-Dichloroethene	20	100		< 16	6.6	< 10	5.9	7.7	NA	NA	NA	6.0	NA	NA	4.0	NA	1.1	4.2
Trichloroethene	0.5	5		<b>270</b>	<b>200</b>	<b>170</b>	<b>160</b>	<b>250</b>	NA	NA	NA	<b>140</b>	NA	NA	<b>130</b>	NA	<b>30</b>	<b>120</b>
Vinyl chloride	0.02	0.2		< 6.4	< 0.2	< 4	< 0.13	< 0.5	NA	NA	NA	< 0.1	NA	NA	< 0.1	NA	< 0.1	< 0.1
Xylenes, Total	400	2000		< 16	< 0.5	< 10	< 0.3	< 0.34	NA	NA	NA	< 0.068	NA	NA	< 0.068	NA	< 0.068	< 0.068
<b>Total PCBs</b>																		
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	< 0.18	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	< 0.096	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	< 0.14	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	< 0.11	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>																		
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>																		
Total Dissolved Solids	NE	NE		NA	NA	NA	NA	1700	2100	2400	2200	2000	480	4400	4200	5200	NA	NA
Total Suspended Solids (TSS)	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes on Page 55.

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-3D 48 - 53 ft 07/16/2013	MW-3D 48 - 53 ft 10/10/2013	MW-3D 48 - 53 ft 04/18/2014	MW-3D 48 - 53 ft 10/16/2014	MW-3D 48 - 53 ft 04/14/2015	MW-3D 48 - 53 ft 10/21/2015	MW-3D 48 - 53 ft 01/25/2016	MW-3D 48 - 53 ft 04/22/2016	MW-3D <sup>3</sup> 48 - 53 ft 04/22/2016	MW-3D 48 - 53 ft 07/20/2016	MW-3D 48 - 53 ft 10/13/2016	MW-3D 48 - 53 ft 1/19/2017	MW-3D 48 - 53 ft 04/12/2017	MW-3D 48 - 53 ft 10/05/2017
<b>VOCs</b>																	
1,1,1,2-Tetrachloroethane	7	70		< 0.5	< 0.25	< 0.50	< 0.50	< 0.25	< 0.46	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
1,1,1-Trichloroethane	40	200		< 0.4	< 0.2	< 0.40	< 0.40	< 0.20	< 0.38	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1,2-Trichloroethane	0.5	5		< 0.56	< 0.28	< 0.56	< 0.56	< 0.28	< 0.35	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethane	0.7	7		< 0.62	< 0.31	< 0.62	< 0.62	< 0.31	< 0.39	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
1,2,4-Trimethylbenzene	96	480		< 0.28	< 0.14	< 0.28	< 0.28	< 0.14	< 0.36	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060
1,2-Dibromoethane	0.005	0.05		< 0.72	< 0.36	< 0.72	< 0.72	< 0.36	< 0.39	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
1,2-Dichlorobenzene	60	600		< 0.54	< 0.27	< 0.54	< 0.54	< 0.27	< 0.33	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076
1,2-Dichloropropane	0.5	5		< 0.4	< 0.2	< 0.40	< 0.40	< 0.20	< 0.43	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichlorobenzene	NE	NE		< 0.48	< 0.24	< 0.48	< 0.48	< 0.24	< 0.46	< 0.045	< 0.045	< 0.045	0.18 BJ	< 0.045	< 0.045	< 0.045	< 0.045
1,2,4-Trichlorobenzene	14	70		< 0.62	< 0.31	< 0.62	< 0.62	< 0.31	< 0.34	< 0.077	< 0.077	< 0.077	0.16 BJ	< 0.077	< 0.077	< 0.077	< 0.077
1,3,5-Trimethylbenzene	96	480		< 0.36	< 0.18	< 0.36	< 0.36	< 0.18	< 0.25	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	< 3.0	4.0 J	5.7 J	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	< 3.4	14 J	15 J	< 3.4	12 J	33	18 BJ	40
Benzene	0.5	5		< 0.15	0.36 J	< 0.15	<b>0.55 J</b>	0.40 J	< 0.15	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089	0.36 BJ	0.34 J	0.38 J
Bromodichloromethane	0.06	0.6		< 0.34	< 0.17	< 0.34	< 0.34	< 0.17	< 0.37	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077
Bromoforn	0.44	4.4		< 0.56	< 0.28	< 0.56	< 0.56	< 0.28	< 0.48	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
Bromomethane	1	10		< 0.62	< 0.31	< 0.62	< 0.62	< 0.31	< 0.80	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	< 0.053	< 0.053	0.18 J	0.44 J	0.38 J	0.39 J	0.14 J	< 0.053
Carbon tetrachloride	0.5	5		< 0.52	< 0.26	< 0.52	< 0.52	< 0.26	< 0.38	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038
Chloroform	0.6	6		< 0.4	<b>0.85 J</b>	< 0.40	< 0.40	<b>0.88 J</b>	<b>0.90 J</b>	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062	0.19 BJ	< 0.062	0.43 J
Chloromethane	3	30		< 0.36	< 0.18	< 0.36	< 0.36	< 0.18	< 0.32	< 0.16	< 0.16	< 0.16	< 0.16	0.31 BJ	0.30 BJ	0.18 J+	2.1
cis-1,2-Dichloroethene	7	70		<b>200</b>	<b>180</b>	<b>170</b>	<b>170</b>	<b>82</b>	<b>48</b>	0.87	0.77	0.69	<b>13</b>	3.6	<b>7.3</b>	<b>10</b>	1.7
Dichlorodifluoromethane	200	1000		< 0.4	< 0.2	< 0.40	< 0.40	< 0.20	< 0.54	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Ethylbenzene	140	700		< 0.26	< 0.13	< 0.26	< 0.26	< 0.13	< 0.18	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054
Isopropylbenzene	NE	NE		< 0.28	< 0.14	< 0.28	< 0.28	< 0.14	< 0.39	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081	0.11 J
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057
Methyl tert-butyl ether	12	60		< 0.48	< 0.24	< 0.48	< 0.48	< 0.24	< 0.39	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
Methylene chloride	0.5	5		< 1.4	< 0.68	< 1.4	< 1.4	< 0.68	< 1.6	0.33 J	< 0.14	< 0.14	< 0.14	0.31 J	0.45 BJ	< 0.14	< 0.14
Naphthalene	10	100		< 0.32	< 0.16	< 0.32	< 0.32	< 0.16	< 0.34	< 0.088	< 0.088	< 0.088	0.31 BJ	< 0.088	< 0.088	< 0.088	< 0.088
n-Butylbenzene	NE	NE		< 0.26	< 0.13	< 0.26	< 0.26	< 0.13	< 0.39	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	0.21 J	< 0.21
n-Propylbenzene	NE	NE		< 0.26	< 0.13	< 0.26	< 0.26	< 0.13	< 0.41	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058
p-Isopropyltoluene	NE	NE		< 0.34	< 0.17	< 0.34	< 0.34	< 0.17	< 0.36	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085
sec-Butylbenzene	NE	NE		< 0.3	< 0.15	< 0.30	< 0.30	< 0.15	< 0.40	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
Styrene	10	100		< 0.2	< 0.1	< 0.20	< 0.20	< 0.10	< 0.39	< 0.065	< 0.065	< 0.065	0.15 J	< 0.065	< 0.065	< 0.065	< 0.065
tert-Butylbenzene	NE	NE		< 0.28	< 0.14	< 0.28	< 0.28	< 0.14	< 0.40	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
Tetrachloroethene	0.5	5		<b>920</b>	<b>620</b>	<b>730</b>	<b>1100</b>	<b>850</b>	<b>140</b>	<b>3.5</b>	<b>2.3</b>	<b>1.8</b>	<b>4.1</b>	<b>13</b>	<b>5.4 B</b>	0.43 BJ	<b>13 B</b>
Toluene	160	800		< 0.22	< 0.11	< 0.22	< 0.22	< 0.11	< 0.15	0.12 J	< 0.053	< 0.053	0.11 J	< 0.053	0.44 BJ	0.10 J	< 0.053
trans-1,2-Dichloroethene	20	100		4.8	5.2	6.4	9.3	4.3	3.1	< 0.11	< 0.11	< 0.11	0.17 J	< 0.11	< 0.11	< 0.11	< 0.11
Trichloroethene	0.5	5		<b>130</b>	<b>100</b>	<b>130</b>	<b>170</b>	<b>92</b>	<b>51</b>	<b>0.86</b>	<b>0.63</b>	<b>0.5</b>	<b>2.2</b>	<b>3.9</b>	<b>11</b>	<b>4.4</b>	<b>2</b>
Vinyl chloride	0.02	0.2		< 0.2	< 0.1	< 0.20	< 0.20	< 0.10	< 0.20	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16
Xylenes, Total	400	2000		< 0.14	< 0.068	< 0.14	< 0.14	< 0.068	< 0.22	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.12	< 0.12	< 0.12
<b>Total PCBs</b>																	
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>																	
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>																	
Total Dissolved Solids	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes on Page 55.

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-3D2 76 - 81 ft 12/31/2009	MW-3D2 76 - 81 ft 04/07/2010	MW-3D2 76 - 81 ft 07/01/2010	MW-3D2 76 - 81 ft 10/01/2010	MW-3D2 76 - 81 ft 03/30/2011	MW-3D2 76 - 81 ft 04/12/2012	MW-3D2 <sup>3</sup> 76 - 81 ft 04/12/2012	MW-3D2 76 - 81 ft 11/30/2012	MW-3D2 <sup>3</sup> 76 - 81 ft 11/30/2012	MW-3D2 76 - 81 ft 12/19/2012	MW-3D2 76 - 81 ft 12/28/2012	MW-3D2 76 - 81 ft 01/03/2013	MW-3D2 76 - 81 ft 01/16/2013	MW-3D2 <sup>3</sup> 76 - 81 ft 01/16/2013	MW-3D2 76 - 81 ft 01/31/2013	MW-3D2 76 - 81 ft 02/12/2013	MW-3D2 <sup>3</sup> 76 - 81 ft 02/12/2013	MW-3D2 76 - 81 ft 02/28/2013	MW-3D2 <sup>1</sup> 76 - 81 ft 03/13/2013	MW-3D2 <sup>1</sup> 76 - 81 ft 04/16/2013	MW-3D2 <sup>3</sup> 76 - 81 ft 04/16/2013	MW-3D2 76 - 81 ft 07/16/2013		
<b>VOCs</b>																										
1,1,1,2-Tetrachloroethane	7	70	< 6.3	< 13	< 13	< 0.25	< 13	< 1.6	< 1.6	< 1.3	< 1.3	NA	NA	NA	< 0.5	< 0.5	NA	< 0.25	< 0.5	NA	< 0.25	< 0.25	< 0.5	< 0.25		
1,1,1-Trichloroethane	40	200	< 13	< 25	< 25	< 0.5	< 25	< 1.3	< 1.3	< 1	< 1	NA	NA	NA	< 0.4	< 0.4	NA	< 0.2	< 0.4	NA	< 0.2	< 0.2	< 0.4	< 0.2		
1,1,2-Trichloroethane	0.5	5	< 6.3	< 13	< 13	< 0.25	< 13	< 1.5	< 1.5	< 1.4	< 1.4	NA	NA	NA	< 0.56	< 0.56	NA	< 0.28	< 0.56	NA	< 0.28	< 0.28	< 0.56	< 0.28		
1,1-Dichloroethane	0.7	7	< 13	< 25	< 25	< 0.5	< 25	< 1.5	< 1.5	< 1.6	< 1.6	NA	NA	NA	< 0.62	< 0.62	NA	< 0.31	< 0.62	NA	< 0.31	< 0.31	< 0.62	< 0.31		
1,2,4-Trimethylbenzene	96	480	< 5	< 10	< 10	< 0.2	< 10	< 1.1	< 1.1	< 0.7	< 0.7	NA	NA	NA	< 0.28	< 0.28	NA	< 0.14	< 0.28	NA	< 0.14	< 0.14	< 0.28	< 0.14		
1,2-Dibromoethane	0.005	0.05	< 5	< 10	< 10	< 0.2	< 10	< 2.3	< 2.3	< 1.8	< 1.8	NA	NA	NA	< 0.72	< 0.72	NA	< 0.36	< 0.72	NA	< 0.36	< 0.36	< 0.72	< 0.36		
1,2-Dichlorobenzene	60	600	< 5	< 10	< 10	< 0.2	< 10	< 1.1	< 1.1	< 1.4	< 1.4	NA	NA	NA	< 0.54	< 0.54	NA	< 0.27	< 0.54	NA	< 0.27	< 0.27	< 0.54	< 0.27		
1,2-Dichloropropane	0.5	5	< 13	< 25	< 25	< 0.5	< 25	< 1.8	< 1.8	< 1	< 1	NA	NA	NA	< 0.4	< 0.4	NA	< 0.2	< 0.4	NA	< 0.2	< 0.2	< 0.4	< 0.2		
1,2,3-Trichlorobenzene	NE	NE	< 6.3	< 13	< 13	< 0.25	< 13	< 1.8	< 1.8	< 1.2	< 1.2	NA	NA	NA	< 0.48	< 0.48	NA	< 0.24	< 0.48	NA	< 0.24	< 0.24	< 0.48	< 0.24		
1,2,4-Trichlorobenzene	14	70	< 6.3	< 13	< 13	< 0.25	< 13	< 1.1	< 1.1	< 1.6	< 1.6	NA	NA	NA	< 0.62	< 0.62	NA	< 0.31	< 0.62	NA	< 0.31	< 0.31	< 0.62	< 0.31		
1,3,5-Trimethylbenzene	96	480	< 5	< 10	< 10	< 0.2	< 10	< 1.2	< 1.2	< 0.9	< 0.9	NA	NA	NA	< 0.36	< 0.36	NA	< 0.18	< 0.36	NA	< 0.18	< 0.18	< 0.36	< 0.18		
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Benzene	0.5	5	< 5	< 10	< 10	< 0.2	< 10	< 0.6	< 0.6	< 0.37	< 0.37	NA	NA	NA	< 0.15	< 0.15	NA	< 0.074	< 0.15	NA	< 0.074	< 0.074	< 0.15	< 0.074		
Bromodichloromethane	0.06	0.6	< 5	< 10	< 10	< 0.2	< 10	< 1.2	< 1.2	< 0.85	< 0.85	NA	NA	NA	< 0.34	< 0.34	NA	< 0.17	< 0.34	NA	< 0.17	< 0.17	< 0.34	< 0.17		
Bromoform	0.44	4.4	< 5	< 10	< 10	< 0.2	< 10	< 2.3	< 2.3	< 1.4	< 1.4	NA	NA	NA	< 0.56	< 0.56	NA	< 0.28	< 0.56	NA	< 0.28	< 0.28	< 0.56	< 0.28		
Bromomethane	1	10	< 13	< 25	< 25	< 0.5	< 25	< 2.5	< 2.5	< 1.6	< 1.6	NA	NA	NA	< 0.62	< 0.62	NA	< 0.31	< 0.62	NA	< 0.31	< 0.31	< 0.62	< 0.31		
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Carbon tetrachloride	0.5	5	< 20	< 40	< 40	< 0.8	< 40	< 1.4	< 1.4	< 1.3	< 1.3	NA	NA	NA	< 0.52	< 0.52	NA	< 0.26	< 0.52	NA	< 0.26	< 0.26	< 0.52	< 0.26		
Chloroform	0.6	6	< 5	< 10	< 10	0.37	< 10	< 1.3	< 1.3	< 1	< 1	NA	NA	NA	< 0.4	< 0.4	NA	< 0.2	< 0.4	NA	< 0.2	< 0.2	< 0.4	< 0.2		
Chloromethane	3	30	< 7.5	< 15	< 15	< 0.3	< 15	< 1.2	< 1.2	< 0.9	< 0.9	NA	NA	NA	< 0.36	< 0.36	NA	< 0.18	< 0.36	NA	< 0.18	< 0.18	< 0.36	< 0.18		
cis-1,2-Dichloroethene	7	70	<b>520</b>	<b>510</b>	<b>460</b>	<b>400</b>	<b>440</b>	<b>440</b>	<b>440</b>	<b>420</b>	<b>400</b>	NA	NA	NA	<b>320</b>	<b>300</b>	NA	<b>250</b>	<b>260</b>	NA	<b>100</b>	<b>45</b>	< 0.24	<b>10</b>		
Dichlorodifluoromethane	200	1000	< 13	< 25	< 25	< 0.5	< 25	< 1.3	< 1.3	< 1	< 1	NA	NA	NA	< 0.4	< 0.4	NA	< 0.2	< 0.4	NA	< 0.2	< 0.2	< 0.4	< 0.2		
Ethylbenzene	140	700	< 13	< 25	< 25	< 0.5	< 25	< 0.7	< 0.7	< 0.65	< 0.65	NA	NA	NA	< 0.26	< 0.26	NA	< 0.13	< 0.26	NA	< 0.13	< 0.13	< 0.26	< 0.13		
Isopropylbenzene	NE	NE	< 5	< 10	< 10	< 0.2	< 10	< 1.1	< 1.1	< 0.7	< 0.7	NA	NA	NA	< 0.28	< 0.28	NA	< 0.14	< 0.28	NA	< 0.14	< 0.14	< 0.28	< 0.14		
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Methyl tert-butyl ether	12	60	< 13	< 25	< 25	< 0.5	< 25	< 1.4	< 1.4	< 1.2	< 1.2	NA	NA	NA	< 0.48	< 0.48	NA	< 0.24	< 0.48	NA	< 0.24	< 0.24	< 0.48	< 0.24		
Methylene chloride	0.5	5	< 25	< 50	< 50	< 1	< 50	< 3.2	< 3.2	< 3.4	< 3.4	NA	NA	NA	< 1.4	< 1.4	NA	<b>7.3</b>	< 1.4	NA	< 0.68	< 0.68	< 1.4	< 0.68		
Naphthalene	10	100	< 6.3	< 13	<b>240</b>	< 0.25	<b>13</b>	< 1.2	< 1.2	< 0.8	< 0.8	NA	NA	NA	< 0.32	< 0.32	NA	< 0.16	< 0.32	NA	< 0.16	< 0.16	< 0.32	< 0.16		
n-Butylbenzene	NE	NE	< 5	< 10	< 10	< 0.2	< 10	< 1.1	< 1.1	< 0.65	< 0.65	NA	NA	NA	< 0.26	< 0.26	NA	< 0.13	< 0.26	NA	< 0.13	< 0.13	< 0.26	< 0.13		
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
n-Propylbenzene	NE	NE	< 13	< 25	< 25	< 0.5	< 25	< 0.95	< 0.95	< 0.65	< 0.65	NA	NA	NA	< 0.26	< 0.26	NA	< 0.13	< 0.26	NA	< 0.13	< 0.13	< 0.26	< 0.13		
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
p-Isopropyltoluene	NE	NE	< 5	< 10	< 10	< 0.2	< 10	< 1.2	< 1.2	< 0.85	< 0.85	NA	NA	NA	< 0.34	< 0.34	NA	< 0.17	< 0.34	NA	< 0.17	< 0.17	< 0.34	< 0.17		
sec-Butylbenzene	NE	NE	< 6.3	< 13	< 13	< 0.25	< 13	< 0.95	< 0.95	< 0.75	< 0.75	NA	NA	NA	< 0.3	< 0.3	NA	< 0.15	< 0.3	NA	< 0.15	< 0.15	< 0.3	< 0.15		
Styrene	10	100	< 13	< 25	< 25	< 0.5	< 25	< 1.3	< 1.3	< 0.5	< 0.5	NA	NA	NA	< 0.2	< 0.2	NA	< 0.1	< 0.2	NA	< 0.1	< 0.1	< 0.2	< 0.1		
tert-Butylbenzene	NE	NE	< 5	< 10	< 10	< 0.2	< 10	< 1.2	< 1.2	< 0.7	< 0.7	NA	NA	NA	< 0.28	< 0.28	NA	< 0.14	< 0.28	NA	< 0.14	< 0.14	< 0.28	< 0.14		
Tetrachloroethene	0.5	5	<b>4900</b>	<b>4400</b>	<b>3900</b>	<b>3900</b>	<b>3800</b>	<b>2600</b>	<b>2600</b>	<b>2800</b>	<b>2800</b>	NA	NA	NA	<b>1200</b>	<b>1100</b>	NA	<b>1700</b>	<b>1700</b>	NA	<b>800</b>	<b>850</b>	<b>710</b>	<b>440</b>		
Toluene	160	800	< 13	< 25	< 25	< 0.5	< 25	< 0.75	< 0.75	< 0.55	< 0.55	NA	NA	NA	< 0.22	< 0.22	NA	< 0.11	< 0.22	NA	< 0.11	< 0.11	< 0.22	< 0.11		
trans-1,2-Dichloroethene	20	100	< 13	< 25	< 25	7.0	< 25	6.4	5.8	5.6	5.6	NA	NA	NA	4.9	4.5	NA	3.2	3.5	NA	0.62 J	< 0.25	< 0.5	< 0.25		
Trichloroethene	0.5	5	<b>280</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>230</b>	<b>190</b>	<b>190</b>	<b>190</b>	<b>180</b>	NA	NA	NA	<b>110</b>	<b>120</b>	NA	<b>120</b>	<b>120</b>	NA	<b>50</b>	<b>24</b>	< 0.38	<b>8.7</b>		
Vinyl chloride	0.02	0.2	< 5	< 10	< 10	<b>0.65</b>	< 10	< 0.65	< 0.65	< 0.5	< 0.5	NA	NA													





Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-3D3 214 - 224 ft 07/24/2012	MW-3D3 <sup>2</sup> 214 - 224 ft 07/24/2012	MW-3D3 214 - 224 ft 11/27/2012	MW-3D3 214 - 224 ft 12/19/2012	MW-3D3 214 - 224 ft 12/31/2012	MW-3D3 214 - 224 ft 01/03/2013	MW-3D3 214 - 224 ft 01/18/2013	MW-3D3 214 - 224 ft 01/31/2013	MW-3D3 214 - 224 ft 02/15/2013	MW-3D3 214 - 224 ft 02/27/2013	MW-3D3 214 - 224 ft 03/13/2013	MW-3D3 214 - 224 ft 04/19/2013	MW-3D3 214 - 224 ft 07/16/2013	MW-3D3 214 - 224 ft 10/07/2013	MW-3D3 214 - 224 ft 04/16/2014	MW-3D3 214 - 224 ft 10/16/2014	MW-3D3 214 - 224 ft 04/13/2015	MW-3D3 214 - 224 ft 10/19/2015	MW-3D3 214 - 224 ft 10/13/2016	MW-3D3 214 - 224 ft 10/05/2017	
<b>VOCs</b>																							
1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.25	< 0.25	NA	NA	NA	< 0.25	NA	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 0.11
1,1,1-Trichloroethane	40	200	< 0.2	< 0.2	< 0.2	NA	NA	NA	< 0.2	NA	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.38	< 0.10	< 0.1
1,1,2-Trichloroethane	0.5	5	< 0.28	< 0.28	< 0.28	NA	NA	NA	< 0.28	NA	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 0.1
1,1-Dichloroethane	0.7	7	< 0.31	< 0.31	< 0.31	NA	NA	NA	< 0.31	NA	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 0.14
1,2,4-Trimethylbenzene	96	480	< 0.14	< 0.14	< 0.14	NA	NA	NA	< 0.14	NA	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 0.06
1,2-Dibromoethane	0.005	0.05	< 0.36	< 0.36	< 0.36	NA	NA	NA	< 0.36	NA	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 0.13
1,2-Dichlorobenzene	60	600	< 0.27	< 0.27	< 0.27	NA	NA	NA	< 0.27	NA	< 0.27	NA	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	< 0.076
1,2-Dichloropropane	0.5	5	< 0.2	< 0.2	< 0.2	NA	NA	NA	< 0.2	NA	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.43	< 0.10	< 0.1
1,2,3-Trichlorobenzene	NE	NE	< 0.24	< 0.24	< 0.24	NA	NA	NA	< 0.24	NA	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.045
1,2,4-Trichlorobenzene	14	70	< 0.31	< 0.31	< 0.31	NA	NA	NA	< 0.31	NA	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	< 0.077
1,3,5-Trimethylbenzene	96	480	< 0.18	< 0.18	< 0.18	NA	NA	NA	< 0.18	NA	< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 0.075
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 3
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 0.95
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 0.77
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	< 3.4
Benzene	0.5	5	< 0.074	< 0.074	< 0.074	NA	NA	NA	0.30 J	NA	< 0.074	NA	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.089	< 0.089
Bromodichloromethane	0.06	0.6	< 0.17	< 0.17	< 0.17	NA	NA	NA	< 0.17	NA	< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 0.077
Bromoform	0.44	4.4	< 0.28	< 0.28	< 0.28	NA	NA	NA	< 0.28	NA	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.088
Bromomethane	1	10	< 0.31	< 0.31	< 0.31	NA	NA	NA	< 0.31	NA	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 0.59	< 0.59
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.53	< 0.53
Carbon tetrachloride	0.5	5	< 0.26	< 0.26	< 0.26	NA	NA	NA	< 0.26	NA	< 0.26	NA	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.038
Chloroform	0.6	6	< 0.2	< 0.2	< 0.2	NA	NA	NA	< 0.2	NA	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.37	< 0.062	< 0.062
Chloromethane	3	30	< 0.18	< 0.18	< 0.18	NA	NA	NA	< 0.18	NA	< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	0.79 BJ	0.58 J
cis-1,2-Dichloroethene	7	70	2.2	2.2	6.8	NA	NA	NA	15	NA	7.7	NA	6.2	4.0	1.2	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.41	< 0.11	< 0.11
Dichlorodifluoromethane	200	1000	< 0.2	< 0.2	< 0.2	NA	NA	NA	< 0.2	NA	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.54	< 0.11	< 0.11
Ethylbenzene	140	700	< 0.13	< 0.13	< 0.13	NA	NA	NA	< 0.13	NA	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 0.054
Isopropylbenzene	NE	NE	< 0.14	< 0.14	< 0.14	NA	NA	NA	< 0.14	NA	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.081
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.57	< 0.57
Methyl tert-butyl ether	12	60	< 0.24	< 0.24	< 0.24	NA	NA	NA	< 0.24	NA	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.39	< 0.14	< 0.14
Methylene chloride	0.5	5	< 0.68	< 0.68	< 0.68	NA	NA	NA	< 0.68	NA	< 0.68	NA	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 0.14	< 0.14
Naphthalene	10	100	< 0.16	< 0.16	< 0.16	NA	NA	NA	< 0.16	NA	< 0.16	NA	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	0.1 BJ
n-Butylbenzene	NE	NE	< 0.13	< 0.13	< 0.13	NA	NA	NA	< 0.13	NA	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.14
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21
n-Propylbenzene	NE	NE	< 0.13	< 0.13	< 0.13	NA	NA	NA	< 0.13	NA	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.1
o-Xylene	400	2000	< 0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.58	< 0.58
p-Isopropyltoluene	NE	NE	< 0.17	< 0.17	< 0.17	NA	NA	NA	< 0.17	NA	< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.085
sec-Butylbenzene	NE	NE	< 0.15	< 0.15	< 0.15	NA	NA	NA	< 0.15	NA	< 0.15	NA	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.13
Styrene	10	100	< 0.1	< 0.1	< 0.1	NA	NA	NA	< 0.1	NA	< 0.1	NA	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.39	< 0.065	< 0.065
tert-Butylbenzene	NE	NE	< 0.14	< 0.14	< 0.14	NA	NA	NA	< 0.14	NA	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 0.12
Tetrachloroethene	0.5	5	6.6	6.6	1.7	NA	NA	NA	1.3	NA	0.72 J	NA	0.95 J	0.63 J	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	0.49 J	0.15 BJ
Toluene	160	800	< 0.11	< 0.11	< 0.11	NA	NA	NA	0.21 J	NA	< 0.11	NA	< 0.11	0.53	2.8	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	0.10 J	0.07 J
trans-1,2-Dichloroethene	20	100	< 0.25	< 0.25	< 0.25	NA	NA	NA	< 0.25	NA	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	< 0.11	< 0.11
Trichloroethene	0.5	5	1.1	1.2	1.1	NA	NA	NA	0.40 J	NA	< 0.19	NA	< 0.19	< 0.19	0.31 J	0.5	< 0.19	< 0.19	< 0.19	< 0.19	< 0.16	< 0.062	< 0.062
Vinyl chloride	0.02	0.2	< 0.1	< 0.1	< 0.1	NA	NA	NA	< 0.1	NA	< 0.1	NA	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.20	< 0.16	< 0.16
Xylenes, Total	400	2000	< 0.068	< 0.068	< 0.068</																		

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-4S 35 - 50 ft 04/08/2010	MW-4S <sup>3</sup> 35 - 50 ft 04/08/2010	MW-4S 35 - 50 ft 03/30/2011	MW-4S 35 - 50 ft 04/10/2012	MW-4S 35 - 50 ft 01/15/2013	MW-4S 35 - 50 ft 04/18/2013	MW-4S 35 - 50 ft 07/18/2013	MW-4S 35 - 50 ft 10/08/2013	MW-4S 35 - 50 ft 04/17/2014	MW-4S 35 - 50 ft 10/17/2014	MW-4S 35 - 50 ft 10/05/2017
<b>VOCs</b>													
1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.25	< 0.25	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	NA
1,1,1-Trichloroethane	40	200	< 0.5	< 0.5	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA
1,1,2-Trichloroethane	0.5	5	< 0.25	< 0.25	< 0.25	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	NA
1,1-Dichloroethane	0.7	7	< 0.5	< 0.5	< 0.5	< 0.29	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	NA
1,2,4-Trimethylbenzene	96	480	< 0.2	< 0.2	< 0.2	< 0.22	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA
1,2-Dibromoethane	0.005	0.05	< 0.2	< 0.2	< 0.2	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	NA
1,2-Dichlorobenzene	60	600	< 0.2	< 0.2	< 0.2	< 0.21	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	NA
1,2-Dichloropropane	0.5	5	< 0.5	< 0.5	< 0.5	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA
1,2,3-Trichlorobenzene	NE	NE	< 0.25	< 0.25	< 0.25	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	NA
1,2,4-Trichlorobenzene	14	70	< 0.25	< 0.25	< 0.25	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	NA
1,3,5-Trimethylbenzene	96	480	< 0.2	< 0.2	< 0.2	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	NA
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.5	5	< 0.2	< 0.2	< 0.2	< 0.12	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	NA
Bromodichloromethane	0.06	0.6	< 0.2	< 0.2	< 0.2	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	NA
Bromoform	0.44	4.4	< 0.2	< 0.2	< 0.2	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	NA
Bromomethane	1	10	< 0.5	< 0.5	< 0.5	< 0.49	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31 *	NA
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.5	5	< 0.8	< 0.8	< 0.8	< 0.28	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	NA
Chloroform	0.6	6	< 0.2	< 0.2	< 0.2	< 0.25	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA
Chloromethane	3	30	< 0.3	< 0.3	< 0.3	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	NA
cis-1,2-Dichloroethene	7	70	< 0.5	< 0.5	< 0.5	< 0.22	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	NA
Dichlorodifluoromethane	200	1000	< 0.5	< 0.5	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA
Ethylbenzene	140	700	< 0.5	< 0.5	< 0.5	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	NA
Isopropylbenzene	NE	NE	< 0.2	< 0.2	< 0.2	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	12	60	< 0.5	< 0.5	< 0.5	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24 *	NA
Methylene chloride	0.5	5	< 1	< 1	< 1	< 0.63	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	NA
Naphthalene	10	100	1.4	1.4	< 0.25	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	NA
n-Butylbenzene	NE	NE	< 0.2	< 0.2	< 0.2	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	NA
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NE	< 0.5	< 0.5	< 0.5	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	NA
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NE	< 0.2	< 0.2	< 0.2	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	NA
sec-Butylbenzene	NE	NE	< 0.25	< 0.25	< 0.25	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	NA
Styrene	10	100	< 0.5	< 0.5	< 0.5	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	NA
tert-Butylbenzene	NE	NE	< 0.2	< 0.2	< 0.2	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA
Tetrachloroethene	0.5	5	<b>1.5</b>	<b>1.7</b>	<b>1.6</b>	<b>0.96 J</b>	<b>1.4</b>	<b>1.8</b>	<b>0.90 J</b>	<b>1.2</b>	<b>1.9</b>	<b>1.4</b>	NA
Toluene	160	800	< 0.5	< 0.5	< 0.5	0.20 J	< 0.11	< 0.11	0.26 J	< 0.11	< 0.11	< 0.11	NA
trans-1,2-Dichloroethene	20	100	< 0.5	< 0.5	< 0.5	< 0.27	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	NA
Trichloroethene	0.5	5	< 0.2	< 0.2	< 0.2	< 0.18	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	NA
Vinyl chloride	0.02	0.2	< 0.2	< 0.2	< 0.2	< 0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	NA
Xylenes, Total	400	2000	< 0.5	< 0.5	< 0.5	< 0.3	< 0.068	< 0.068	0.28 J	< 0.068	< 0.068	< 0.068	NA
<b>Total PCBs</b>													
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	< 0.17	NA	NA	NA	NA	NA	< 0.035
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	< 0.091	NA	NA	NA	NA	NA	< 0.037
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	< 0.13	NA	NA	NA	NA	NA	< 0.038
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	< 0.11	NA	NA	NA	NA	NA	< 0.02
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND
<b>Dissolved PCBs</b>													
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>													
Total Dissolved Solids	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3750
Total Suspended Solids (TSS)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95

Notes on Page 55.

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-4D 65 - 70 ft 04/08/2010	MW-4D 65 - 70 ft 03/30/2011	MW-4D 65 - 70 ft 04/10/2012	MW-4D 65 - 70 ft 01/16/2013	MW-4D 65 - 70 ft 04/18/2013	MW-4D 65 - 70 ft 07/17/2013	MW-4D 65 - 70 ft 10/08/2013	MW-4D 65 - 70 ft 04/17/2014	MW-4D 65 - 70 ft 10/17/2014	MW-4D 65 - 70 ft 10/12/2017
<b>VOCs</b>												
1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.25	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	NA
1,1,1-Trichloroethane	40	200	< 0.5	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA
1,1,2-Trichloroethane	0.5	5	< 0.25	< 0.25	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	NA
1,1-Dichloroethane	0.7	7	< 0.5	< 0.5	< 0.29	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	NA
1,2,4-Trimethylbenzene	96	480	< 0.2	< 0.2	< 0.22	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA
1,2-Dibromoethane	0.005	0.05	< 0.2	< 0.2	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	NA
1,2-Dichlorobenzene	60	600	< 0.2	< 0.2	< 0.21	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	NA
1,2-Dichloropropane	0.5	5	< 0.5	< 0.5	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA
1,2,3-Trichlorobenzene	NE	NE	< 0.25	< 0.25	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	NA
1,2,4-Trichlorobenzene	14	70	< 0.25	< 0.25	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	NA
1,3,5-Trimethylbenzene	96	480	< 0.2	< 0.2	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	NA
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.5	5	< 0.2	< 0.2	< 0.12	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	NA
Bromodichloromethane	0.06	0.6	< 0.2	< 0.2	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	NA
Bromoform	0.44	4.4	< 0.2	< 0.2	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	NA
Bromomethane	1	10	< 0.5	< 0.5	< 0.49	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31 *	NA
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.5	5	< 0.8	< 0.8	< 0.28	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	NA
Chloroform	0.6	6	< 0.2	< 0.2	< 0.25	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA
Chloromethane	3	30	< 0.3	< 0.3	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	NA
cis-1,2-Dichloroethene	7	70	< 0.5	< 0.5	< 0.22	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	NA
Dichlorodifluoromethane	200	1000	< 0.5	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA
Ethylbenzene	140	700	< 0.5	< 0.5	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	NA
Isopropylbenzene	NE	NE	< 0.2	< 0.2	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	12	60	< 0.5	< 0.5	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24 *	NA
Methylene chloride	0.5	5	< 1	< 1	< 0.63	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	NA
Naphthalene	10	100	< 0.25	< 0.25	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	NA
n-Butylbenzene	NE	NE	< 0.2	< 0.2	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	NA
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NE	< 0.5	< 0.5	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	NA
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NE	< 0.2	< 0.2	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	NA
sec-Butylbenzene	NE	NE	< 0.25	< 0.25	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	NA
Styrene	10	100	< 0.5	< 0.5	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	NA
tert-Butylbenzene	NE	NE	< 0.2	< 0.2	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA
Tetrachloroethene	0.5	5	<b>0.9</b>	<b>0.7</b>	< 0.22	< 0.17	<b>0.51 J</b>	< 0.17	< 0.17	<b>0.58 J</b>	< 0.17	NA
Toluene	160	800	< 0.5	< 0.5	< 0.15	< 0.11	< 0.11	0.36 J	< 0.11	< 0.11	< 0.11	NA
trans-1,2-Dichloroethene	20	100	< 0.5	< 0.5	< 0.27	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	NA
Trichloroethene	0.5	5	< 0.2	< 0.2	< 0.18	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	NA
Vinyl chloride	0.02	0.2	< 0.2	< 0.2	< 0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	NA
Xylenes, Total	400	2000	< 0.5	< 0.5	< 0.3	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	NA
<b>Total PCBs</b>												
Aroclor-1016	0.003	0.03	NA	NA	NA	< 0.17	NA	NA	NA	NA	NA	< 0.035
Aroclor-1232	0.003	0.03	NA	NA	NA	< 0.093	NA	NA	NA	NA	NA	< 0.037
Aroclor-1242	0.003	0.03	NA	NA	NA	< 0.13	NA	NA	NA	NA	NA	< 0.038
Aroclor-1248	0.003	0.03	NA	NA	NA	< 0.11	NA	NA	NA	NA	NA	< 0.02
Total Detected PCBs	0.003	0.03	NA	NA	NA	ND	NA	NA	NA	NA	NA	ND
<b>Dissolved PCBs</b>												
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>												
Total Dissolved Solids	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	672
Total Suspended Solids (TSS)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.6

Notes on Page 55.

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-4D2 91 - 96 ft 03/30/2011	MW-4D2 91 - 96 ft 04/10/2012	MW-4D2 91 - 96 ft 01/16/2013	MW-4D2 91 - 96 ft 04/18/2013	MW-4D2 91 - 96 ft 07/18/2013	MW-4D2 91 - 96 ft 10/07/2013	MW-4D2 91 - 96 ft 04/17/2014	MW-4D2 91 - 96 ft 10/17/2014	MW-4D2 91 - 96 ft 10/21/2015	MW-4D2 91 - 96 ft 01/22/2016	MW-4D2 91 - 96 ft 04/20/2016	MW-4D2 91 - 96 ft 07/19/2016	MW-4D2 <sup>2</sup> 91 - 96 ft 07/19/2016	MW-4D2 91 - 96 ft 10/12/2016	MW-4D2 91 - 96 ft 1/19/2017	MW-4D2 91 - 96 ft 04/11/2017	MW-4D2 91 - 96 ft 10/05/2017
<b>VOCS</b>																				
1,1,1,2-Tetrachloroethane	7	70		< 0.25	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
1,1,1-Trichloroethane	40	200		< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.38	< 0.10	0.13 J	0.17 J	0.18 J	0.27 J	0.24 J	0.30 J	< 0.1
1,1,2-Trichloroethane	0.5	5		< 0.25	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1
1,1-Dichloroethene	0.7	7		< 0.5	< 0.29	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
1,2,4-Trimethylbenzene	96	480		< 0.2	< 0.22	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.06
1,2-Dibromoethane	0.005	0.05		< 0.2	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
1,2-Dichlorobenzene	60	600		< 0.2	< 0.21	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076
1,2-Dichloropropane	0.5	5		< 0.5	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.43	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1
1,2,3-Trichlorobenzene	NE	NE		< 0.25	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045
1,2,4-Trichlorobenzene	14	70		< 0.25	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077
1,3,5-Trimethylbenzene	96	480		< 0.2	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4
Benzene	0.5	5		< 0.2	< 0.12	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089	0.34 J	< 0.089	< 0.089
Bromodichloromethane	0.06	0.6		< 0.2	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077
Bromoform	0.44	4.4		< 0.2	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
Bromomethane	1	10		< 0.5	< 0.49	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31 *	< 0.80	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.053	< 0.053	< 0.053	< 0.053	< 0.053	< 0.053	< 0.053	< 0.053
Carbon tetrachloride	0.5	5		< 0.8	< 0.28	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038
Chloroform	0.6	6		< 0.2	< 0.25	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.37	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062
Chloromethane	3	30		< 0.3	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	< 0.16	< 0.16	0.20 J	0.18 J	0.52 BJ	0.26 BJ	< 0.16	0.93 J
cis-1,2-Dichloroethene	7	70		< 0.5	< 0.22	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.41	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Dichlorodifluoromethane	200	1000		< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.54	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Ethylbenzene	140	700		< 0.5	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	0.40 J	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054
Isopropylbenzene	NE	NE		< 0.2	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057
Methyl tert-butyl ether	12	60		< 0.5	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24 *	< 0.39	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
Methylene chloride	0.5	5		< 1	< 0.63	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
Naphthalene	10	100		< 0.25	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	0.13 BJ
n-Butylbenzene	NE	NE		< 0.2	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
n-Propylbenzene	NE	NE		< 0.5	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.1
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058
p-Isopropyltoluene	NE	NE		< 0.2	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085
sec-Butylbenzene	NE	NE		< 0.25	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
Styrene	10	100		< 0.5	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.39	< 0.065	< 0.065	< 0.065	< 0.065	< 0.065	< 0.065	< 0.065	< 0.065
tert-Butylbenzene	NE	NE		< 0.2	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
Tetrachloroethene	0.5	5		<b>1.9</b>	<b>0.73 J</b>	<b>1.2</b>	<b>0.92 J</b>	<b>1.2</b>	<b>0.84 J</b>	<b>1.5</b>	<b>1</b>	0.48 J	<b>0.8</b>	<b>0.76</b>	0.45 J	<b>0.55</b>	<b>0.65</b>	0.38 BJ	0.46 BJ	<b>0.61 B</b>
Toluene	160	800		< 0.5	0.40 J	< 0.11	0.45 J	0.39 J	< 0.11	< 0.11	< 0.11	< 0.15	< 0.053	< 0.053	< 0.053	< 0.053	0.13 J	0.11 BJ	< 0.053	< 0.053
trans-1,2-Dichloroethene	20	100		< 0.5	< 0.27	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Trichloroethene	0.5	5		< 0.2	< 0.18	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.16	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062
Vinyl chloride	0.02	0.2		< 0.2	< 0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.20	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16
Xylenes, Total	400	2000		< 0.5	< 0.3	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	1.8	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058	< 0.12	< 0.12	< 0.12
<b>Total PCBs</b>																				
Aroclor-1016	0.003	0.03		NA	NA	< 0.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	< 0.087	NA	NA	NA											

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-5S 34 - 44 ft 04/07/2010	MW-5S 34 - 44 ft 10/01/2010	MW-5S 34 - 44 ft 04/12/2012	MW-5S <sup>3</sup> 34 - 44 ft 04/12/2012	MW-5S 34 - 44 ft 11/28/2012	MW-5S 34 - 44 ft 01/17/2013	MW-5S 34 - 44 ft 02/13/2013	MW-5S 34 - 44 ft 04/19/2013	MW-5S 34 - 44 ft 07/18/2013	MW-5S 34 - 44 ft 10/04/2013	MW-5S 34 - 44 ft 04/15/2014	MW-5S 34 - 44 ft 10/21/2014	MW-5S 34 - 44 ft 04/13/2015	MW-5S 34 - 44 ft 10/21/2015	MW-5S 34 - 44 ft 10/12/2016	MW-5S 34 - 44 ft 10/04/2017	
<b>VOCs</b>																			
1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.25	< 0.31	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.22	< 0.11
1,1,1-Trichloroethane	40	200	< 0.5	< 0.5	< 0.26	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.38	< 0.20	< 0.1
1,1,2-Trichloroethane	0.5	5	< 0.25	< 0.25	< 0.3	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.20	< 0.1
1,1-Dichloroethane	0.7	7	< 0.5	< 0.5	< 0.29	< 0.29	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.28	< 0.14
1,2,4-Trimethylbenzene	96	480	< 0.2	< 0.2	< 0.22	< 0.22	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.12	< 0.06
1,2-Dibromoethane	0.005	0.05	< 0.2	< 0.2	< 0.45	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.26	< 0.13
1,2-Dichlorobenzene	60	600	< 0.2	< 0.2	< 0.21	< 0.21	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.15	< 0.076
1,2-Dichloropropane	0.5	5	< 0.5	< 0.5	< 0.36	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.43	< 0.20	< 0.1
1,2,3-Trichlorobenzene	NE	NE	< 0.25	< 0.25	< 0.36	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.090	< 0.045
1,2,4-Trichlorobenzene	14	70	< 0.25	< 0.25	< 0.22	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.15	< 0.077
1,3,5-Trimethylbenzene	96	480	< 0.2	< 0.2	< 0.23	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.15	< 0.075
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 6.0	< 3
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 0.95
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.5	< 0.77
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 6.8	3.5 J
Benzene	0.5	5	< 0.2	< 0.2	< 0.12	0.40 J	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.18	< 0.089
Bromodichloromethane	0.06	0.6	< 0.2	< 0.2	< 0.23	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.15	< 0.077
Bromoform	0.44	4.4	< 0.2	< 0.2	< 0.45	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.18	< 0.088
Bromomethane	1	10	< 0.5	< 0.5	< 0.49	< 0.49	< 0.31	0.73 J	< 0.31 *	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 1.2	< 0.59
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.11	< 0.053
Carbon tetrachloride	0.5	5	< 0.8	< 0.8	1.2	< 0.28	1.1	< 0.26	1.4	1.1	1.3	1.3	< 0.26	0.79 J	< 0.26	1	< 0.076	0.81	
Chloroform	0.6	6	< 0.2	0.55	0.84 J	0.88 J	0.79 J	0.79 J	< 0.2	< 0.2	< 0.2	0.61 J	< 0.20	< 0.20	< 0.20	< 0.20	< 0.37	< 0.12	< 0.062
Chloromethane	3	30	< 0.3	< 0.3	< 0.24	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	1.2 BJ	1.3 J
cis-1,2-Dichloroethane	7	70	1.4	10	13	14	4.2	3.8	2.7	2.0	2.9	2.9	< 0.12	< 0.12	< 0.12	< 0.12	< 0.41	< 0.22	< 0.11
Dichlorodifluoromethane	200	1000	< 0.5	< 0.5	< 0.26	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.54	< 0.22	< 0.11
Ethylbenzene	140	700	< 0.5	< 0.5	< 0.14	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.11	< 0.054
Isopropylbenzene	NE	NE	< 0.2	< 0.2	< 0.21	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.16	< 0.081
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.11	0.06 BJ
Methyl tert-butyl ether	12	60	< 0.5	< 0.5	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.39	< 0.28	< 0.14
Methylene chloride	0.5	5	< 1	< 1	< 0.63	< 0.63	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 0.28	< 0.14
Naphthalene	10	100	1.4	< 0.25	< 0.24	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.18	< 0.088
n-Butylbenzene	NE	NE	< 0.2	< 0.2	< 0.21	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.28	< 0.14
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.21
n-Propylbenzene	NE	NE	< 0.5	< 0.5	< 0.19	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.20	< 0.1
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.12	< 0.058
p-Isopropyltoluene	NE	NE	< 0.2	< 0.2	< 0.24	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.17	< 0.085
sec-Butylbenzene	NE	NE	< 0.25	< 0.25	< 0.19	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.26	< 0.13
Styrene	10	100	< 0.5	< 0.5	< 0.26	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.39	< 0.13	< 0.065
tert-Butylbenzene	NE	NE	< 0.2	< 0.2	< 0.24	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.24	< 0.12
Tetrachloroethene	0.5	5	41	670	360	370	240	260	210	130	190	170	47	75	100	110	58	46	
Toluene	160	800	< 0.5	< 0.5	< 0.15	< 0.15	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	0.22 J	< 0.053
trans-1,2-Dichloroethene	20	100	< 0.5	0.50	< 0.27	< 0.27	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	< 0.22	< 0.11
Trichloroethene	0.5	5	1	13	9.8	10	4.7	4.4	3.8	2.8	3	2.9	< 0.19	1.2	0.99	0.79	< 0.12	0.15 J	
Vinyl chloride	0.02	0.2	< 0.2	< 0.2	< 0.13	< 0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.32	< 0.16
Xylenes, Total	400	2000	< 0.5	< 0.5	< 0.3	< 0.3	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.22	< 0.12	< 0.12
<b>Total PCBs</b>																			
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	< 0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	< 0.091	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	< 0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	< 0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>																			
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03																	

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-5D 75 - 80 ft 04/07/2010	MW-5D <sup>3</sup> 75 - 80 ft 04/07/2010	MW-5D 75 - 80 ft 04/12/2012	MW-5D 75 - 80 ft 11/28/2012	MW-5D 75 - 80 ft 01/17/2013	MW-5D 75 - 80 ft 02/13/2013	MW-5D 75 - 80 ft 04/19/2013	MW-5D 75 - 80 ft 07/18/2013	MW-5D 75 - 80 ft 10/04/2013	MW-5D 75 - 80 ft 04/15/2014	MW-5D 75 - 80 ft 10/21/2014	MW-5D 75 - 80 ft 04/13/2015	MW-5D 75 - 80 ft 10/19/2015	MW-5D 75 - 80 ft 01/21/2016	MW-5D 75 - 80 ft 04/21/2016	MW-5D <sup>3</sup> 75 - 80 ft 04/21/2016	MW-5D 75 - 80 ft 07/18/2016	MW-5D 75 - 80 ft 10/12/2016	MW-5D 75 - 80 ft 10/12/2016	MW-5D 75 - 80 ft 1/18/2017	MW-5D 75 - 80 ft 04/12/2017	MW-5D 75 - 80 ft 10/04/2017	
<b>VOCs</b>																									
1,1,1,2-Tetrachloroethane	7	70	< 5	< 5	< 0.31	< 1.3	< 0.5	< 0.5	< 0.5	< 1.3	< 1.3	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 0.11	< 0.11	< 0.11	0.51	< 11	< 11	< 0.55	< 0.22	
1,1,1-Trichloroethane	40	200	< 10	< 10	< 0.26	< 1	< 0.4	< 0.4	< 0.4	< 1	< 1	< 0.20	< 0.20	< 0.20	< 0.38	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.2	
1,1,2-Trichloroethane	0.5	5	< 5	< 5	< 0.3	< 1.4	< 0.56	< 0.56	< 0.56	< 1.4	< 1.4	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.2	
1,1-Dichloroethane	0.7	7	< 10	< 10	< 0.29	< 1.6	< 0.62	< 0.62	< 0.62	< 1.6	< 1.6	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.70	< 0.28	
1,2,4-Trimethylbenzene	96	480	< 4	< 4	< 0.22	< 0.7	< 0.28	< 0.28	< 0.28	< 0.7	< 0.7	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060	< 6.0	< 6.0	< 0.30	
1,2-Dibromoethane	0.005	0.05	< 4	< 4	< 0.45	< 1.8	< 0.72	< 0.72	< 0.72	< 1.8	< 1.8	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.65	< 0.26	
1,2-Dichlorobenzene	60	600	< 4	< 4	< 0.21	< 1.4	< 0.54	< 0.54	< 0.54	< 1.4	< 1.4	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076	< 7.6	< 7.6	< 0.38	
1,2-Dichloropropane	0.5	5	< 10	< 10	< 0.36	< 1	< 0.4	< 0.4	< 0.4	< 1	< 1	< 0.20	< 0.20	< 0.20	< 0.43	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.50	< 0.2	
1,2,3-Trichlorobenzene	NE	NE	< 5	< 5	< 0.36	< 1.2	< 0.48	< 0.48	< 0.48	< 1.2	< 1.2	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.045	< 0.045	0.23 BJ	< 0.045	< 4.5	< 4.5	< 0.23	< 0.09	
1,2,4-Trichlorobenzene	14	70	< 5	< 5	< 0.22	< 1.6	< 0.62	< 0.62	< 0.62	< 1.6	< 1.6	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	< 0.077	< 0.077	0.13 BJ	< 0.077	< 7.7	< 7.7	< 0.39	< 0.15	
1,3,5-Trimethylbenzene	96	480	< 4	< 4	< 0.23	< 0.9	< 0.36	< 0.36	< 0.36	< 0.9	< 0.9	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 7.5	< 7.5	< 0.38	< 0.15	
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 300	< 300	< 15	< 6	
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95	< 4.8	< 1.9	
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77	< 7.7	< 7.7	< 3.9	< 1.5	
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 17	< 6.8	
Benzene	0.5	5	< 4	< 4	0.29 J	1.1 J	1.2	1	0.88 J	1.5 J	2.8	0.30 J	0.22 J	< 0.074	< 0.15	< 0.089	< 0.089	< 0.089	< 0.089	5.7	< 8.9	9.0 J	< 4.5	< 0.18	
Bromodichloromethane	0.06	0.6	< 4	< 4	< 0.23	< 0.85	< 0.34	< 0.34	< 0.34	< 0.85	< 0.85	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077	< 7.7	< 7.7	< 0.39	< 0.15	
Bromoform	0.44	4.4	< 4	< 4	< 0.45	< 1.4	< 0.56	< 0.56	< 0.56	< 1.4	< 1.4	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 8.8	< 8.8	< 0.44	< 0.18	
Bromomethane	1	10	< 10	< 10	< 0.49	< 1.6	< 0.62	< 0.62	< 0.62	< 1.6	< 1.6	< 0.31	< 0.31	< 0.31	< 0.80	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	< 5.9	< 5.9	< 3.0	< 1.2	
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.53	< 0.53	0.11 J	< 0.53	< 0.53	< 5.3	15 J	0.70 J	< 0.11	
Carbon tetrachloride	0.5	5	< 16	< 16	< 0.28	< 1.3	< 0.52	< 0.52	< 0.52	< 1.3	< 1.3	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038	< 3.8	< 3.8	< 0.19	< 0.076	
Chloroform	0.6	6	< 4	< 4	< 0.25	< 1	1.0 J	< 0.4	< 0.4	< 1	< 1	< 0.20	< 0.20	< 0.20	< 0.37	< 0.062	< 0.062	< 0.062	< 0.062	1	< 6.2	11 BJ	< 0.31	< 0.12	
Chloromethane	3	30	< 6	< 6	< 0.24	< 0.9	< 0.36	< 0.36	< 0.36	< 0.9	< 0.9	< 0.18	< 0.18	< 0.18	< 0.32	< 0.16	< 0.16	< 0.16	< 0.16	0.57 BJ	100 J	< 16	< 8.0	1.4 J	
cis-1,2-Dichloroethene	7	70	48	48	26	93	110	94	100	120	140	77	100	190	10	0.94	11	13	3.0	210	270	230	13	4	
Dichlorodifluoromethane	200	1000	< 10	< 10	< 0.26	< 1	< 0.4	< 0.4	< 0.4	< 1	< 1	< 0.20	< 0.20	< 0.20	< 0.54	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.55	< 0.22	
Ethylbenzene	140	700	< 10	< 10	< 0.14	< 0.65	< 0.26	< 0.26	< 0.26	< 0.65	< 0.65	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054	< 5.4	< 5.4	< 0.27	< 0.11	
Isopropylbenzene	NE	NE	< 4	< 4	< 0.21	< 0.7	< 0.28	< 0.28	< 0.28	< 0.7	< 0.7	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081	< 8.1	< 8.1	< 0.41	< 0.16	
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	< 5.7	8.0 BJ	< 0.29	< 0.11	
Methyl tert-butyl ether	12	60	< 10	< 10	< 0.28	< 1.2	< 0.48	< 0.48	< 0.48	< 1.2	< 1.2	< 0.24	< 0.24	< 0.24	< 0.39	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 1.4	< 1.4	< 0.70	< 0.28	
Methylene chloride	0.5	5	< 20	< 20	< 0.63	< 3.4	< 1.4	< 1.4	< 1.4	< 3.4	< 3.4	< 0.68	< 0.68	< 0.68	< 1.6	0.18 J	< 0.14	< 0.14	< 0.14	< 0.14	< 1.4	18 BJ	1.3 J	< 0.28	
Naphthalene	10	100	< 5	< 5	< 0.24	< 0.8	< 0.32	< 0.32	< 0.32	< 0.8	< 0.8	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 0.088	< 0.088	0.22 BJ	< 0.088	< 8.8	< 8.8	< 0.44	< 0.18	
n-Butylbenzene	NE	NE	< 4	< 4	< 0.21	< 0.65	< 0.26	< 0.26	< 0.26	< 0.65	< 0.65	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 1.4	< 1.4	< 0.70	< 0.28	
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21	< 2.1	< 2.1	< 1.1	< 0.42	
n-Propylbenzene	NE	NE	< 10	< 10	< 0.19	< 0.65	< 0.26	< 0.26	< 0.26	< 0.65	< 0.65	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 1.0	< 0.50	< 0.2	
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.58	< 0.58	< 0.58	< 0.58	< 0.58	< 5.8	< 5.8	< 0.29	< 0.12	
p-Isopropyltoluene	NE	NE	< 4	< 4	< 0.24	< 0.85	< 0.34	< 0.34	< 0.34	< 0.85	< 0.85	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085	< 8.5	< 8.5	< 0.43	< 0.17	
sec-Butylbenzene	NE	NE	< 5	< 5	< 0.19	< 0.75	< 0.3	< 0.3	< 0.3	< 0.75	< 0.75	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 1.3	< 1.3	< 0.65	< 0.26	
Styrene	10	100	< 10	< 10	< 0.26	< 0.5	< 0.2	< 0.2	< 0.2	< 0.5	< 0.5	< 0.10	< 0.10	< 0.10	< 0.39	< 0.065	< 0.065	< 0.065	0.24 J	< 0.065	< 6.5	< 6.5	< 0.33	< 0.13	
tert-Butylbenzene	NE	NE	< 4	< 4	< 0.24	< 0.7	< 0.28	< 0.28	< 0.28	< 0.7	< 0.7	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 1.2	< 1.2	< 0.60	< 0.24	
Tetrachloroethene	0.5	5	1100	890	400	2000																			









Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-6D 65.5 - 70.5 ft 12/31/2009	MW-6D 65.5 - 70.5 ft 04/07/2010	MW-6D 65.5 - 70.5 ft 07/01/2010	MW-6D 65.5 - 70.5 ft 10/01/2010	MW-6D 65.5 - 70.5 ft 12/28/2010	MW-6D 65.5 - 70.5 ft 03/31/2011	MW-6D 65.5 - 70.5 ft 04/12/2012	MW-6D 65.5 - 70.5 ft 01/16/2013	MW-6D <sup>3</sup> 65.5 - 70.5 ft 01/16/2013	MW-6D 65.5 - 70.5 ft 04/20/2013	MW-6D <sup>3</sup> 65.5 - 70.5 ft 04/20/2013	MW-6D 65.5 - 70.5 ft 07/18/2013	MW-6D <sup>3</sup> 65.5 - 70.5 ft 07/18/2013	MW-6D 65.5 - 70.5 ft 10/07/2013	MW-6D <sup>3</sup> 65.5 - 70.5 ft 10/07/2013	MW-6D 65.5 - 70.5 ft 04/17/2014
<b>VOCS</b>																			
1,1,1,2-Tetrachloroethane	7	70		< 13	< 20	< 13	< 0.25	< 2.5	< 10	< 0.62	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.25	< 0.25	< 0.50
1,1,1-Trichloroethane	40	200		< 25	< 40	< 25	< 0.5	< 5	< 20	< 0.52	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.2	< 0.2	< 0.40
1,1,2-Trichloroethane	0.5	5		< 13	< 20	< 13	< 0.25	< 2.5	< 10	< 0.6	< 0.56	< 0.56	< 0.56	< 0.56	< 0.56	< 0.56	< 0.28	< 0.28	< 0.56
1,1-Dichloroethane	0.7	7		< 25	< 40	< 25	< 0.5	< 5	< 20	< 0.58	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.31	< 0.31	< 0.62
1,2,4-Trimethylbenzene	96	480		<b>330</b>	<b>130</b>	<b>130</b>	<b>160</b>	<b>180</b>	74	19	23	25	11	6.1	16	17	41	38	9.7
1,2-Dibromoethane	0.005	0.05		<b>15</b>	< 16	< 10	<b>11</b>	<b>9.7</b>	< 8	< 0.9	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 0.36	< 0.36	< 0.72
1,2-Dichlorobenzene	60	600		< 10	< 16	< 10	< 0.2	< 2	< 8	< 0.42	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.27	< 0.27	< 0.54
1,2-Dichloropropane	0.5	5		< 25	< 40	< 25	<b>7.2</b>	<b>6</b>	< 20	< 0.72	< 0.4	< 0.4	<b>1.9 J</b>	<b>1.7 J</b>	< 0.4	< 0.2	< 0.2	< 0.40	
1,2,3-Trichlorobenzene	NE	NE		< 13	< 20	< 13	< 0.25	< 2.5	< 10	< 0.72	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.24	< 0.24	< 0.48
1,2,4-Trichlorobenzene	14	70		< 13	< 20	< 13	< 0.25	< 2.5	< 10	< 0.44	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.31	< 0.31	< 0.62
1,3,5-Trimethylbenzene	96	480		23	< 16	< 10	13	13	< 8	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	0.71 J	< 0.18	< 0.36
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.5	5		<b>3900</b>	<b>3200</b>	<b>2900</b>	< 0.2	<b>2900</b>	<b>2100</b>	<b>1500</b>	<b>1300</b>	<b>1400</b>	<b>600</b>	<b>500</b>	<b>810</b>	<b>800</b>	<b>1000</b>	<b>840</b>	<b>650</b>
Bromodichloromethane	0.06	0.6		< 10	< 16	< 10	< 0.2	< 2	< 8	< 0.46	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.17	< 0.17	< 0.34
Bromoform	0.44	4.4		< 10	< 16	< 10	< 0.2	< 2	< 8	< 0.9	< 0.56	< 0.56	< 0.56	< 0.56	< 0.56	< 0.56	< 0.28	< 0.28	< 0.56
Bromomethane	1	10		< 25	< 40	< 25	< 0.5	< 5	< 20	< 0.98	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.31	< 0.31	< 0.62
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.5	5		< 40	< 64	< 40	< 0.8	< 8	< 32	< 0.56	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.26	< 0.26	< 0.52
Chloroform	0.6	6		< 10	< 16	< 10	< 0.2	< 2	< 8	<b>3.6</b>	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.2	< 0.2	< 0.40
Chloromethane	3	30		< 15	< 24	< 15	< 0.3	< 3	< 12	< 0.48	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.18	< 0.18	< 0.36
cis-1,2-Dichloroethene	7	70		< 25	< 40	< 25	1.4	< 5	< 20	< 0.44	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	0.89 J	< 0.12	2.8
Dichlorodifluoromethane	200	1000		< 25	< 40	< 25	< 0.5	< 5	< 20	< 0.52	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.4	< 0.2	< 0.2	< 0.40
Ethylbenzene	140	700		47	< 40	26	39	35	< 20	8.7	7.5	7.9	3.5	2.8	7.1	7.9	8.1	7.5	6.7
Isopropylbenzene	NE	NE		54	43	32	45	40	35	23	30	32	16	12	27	30	29	27	22
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	12	60		< 25	< 40	< 25	< 0.5	< 5	< 20	< 0.56	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.24	< 0.24	< 0.48
Methylene chloride	0.5	5		< 50	< 80	< 50	< 1	< 10	< 40	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.68	< 0.68	< 1.4
Naphthalene	10	100		<b>380</b>	<b>280</b>	<b>370</b>	<b>370</b>	<b>360</b>	<b>190</b>	<b>54</b>	<b>58</b>	<b>3.9</b>	<b>2.8</b>	<b>50</b>	<b>64</b>	<b>72</b>	<b>71</b>	<b>12</b>	<b>12</b>
n-Butylbenzene	NE	NE		12	< 16	< 10	10	7.9	< 8	< 0.42	< 0.26	< 0.26	< 0.26	< 0.26	5.0	6.3	< 0.13	4.3	< 0.26
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NE		49	< 40	27	36	31	21	11	13	14	5.4	3.6	12	13	14	13	9.2
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NE		< 10	< 16	< 10	6.5	5.1	< 8	2.6	3.8	3.9	1.7 J	1.2 J	3.2	3.6	3.4	< 0.17	2.7
sec-Butylbenzene	NE	NE		< 13	< 20	< 13	4.7	4.2	< 10	2.2	3.4	3.8	2.0	1.3 J	3.2	3.6	3.2	3.0	3.0
Styrene	10	100		< 25	< 40	< 25	3.5	<b>12</b>	< 20	< 0.52	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	1.0	< 0.1	< 0.20
tert-Butylbenzene	NE	NE		< 10	< 16	< 10	< 0.2	< 2	< 8	< 0.48	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.14	< 0.14	< 0.28
Tetrachloroethene	0.5	5		<b>36</b>	<b>45</b>	<b>27</b>	<b>30</b>	<b>26</b>	<b>28</b>	<b>20</b>	<b>25</b>	<b>26</b>	<b>22</b>	<b>17</b>	<b>23</b>	<b>25</b>	<b>17</b>	<b>16</b>	<b>10</b>
Toluene	160	800		130	100	88	120	120	58	36	30	31	9.4	7.8	24	27	38	35	25
trans-1,2-Dichloroethene	20	100		< 25	< 40	< 25	< 0.5	< 5	< 20	< 0.54	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.25	< 0.25	< 0.50
Trichloroethene	0.5	5		< 10	< 16	< 10	<b>4.5</b>	<b>4.5</b>	< 8	<b>3.9</b>	<b>11</b>	<b>11</b>	<b>13</b>	<b>11</b>	<b>12</b>	< 0.38	<b>18</b>	<b>17</b>	<b>24</b>
Vinyl chloride	0.02	0.2		< 10	< 16	< 10	< 0.2	< 2	< 8	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.1	< 0.1	< 0.20
Xylenes, Total	400	2000		<b>630</b>	320	250	<b>450</b>	<b>400</b>	130	40	40	41	12	8.3	34	39	63	58	16
<b>Total PCBs</b>																			
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	< 0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	< 0.094	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	< 0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	< 0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>																			
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>																			
Total Dissolved Solids	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-7 24 - 35 ft 08/26/2011	MW-7 24 - 35 ft 04/10/2012	MW-7 24 - 35 ft 01/14/2013	MW-7 24 - 35 ft 04/16/2013	MW-7 24 - 35 ft 07/17/2013	MW-7 24 - 35 ft 10/03/2013	MW-8 24 - 34 ft 08/26/2011	MW-8 24 - 34 ft 04/10/2012	MW-8 24 - 34 ft 01/15/2013	MW-8 24 - 34 ft 04/16/2013	MW-8 24 - 34 ft 07/17/2013	MW-8 24 - 34 ft 10/03/2013
<b>VOCs</b>														
1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25
1,1,1-Trichloroethane	40	200	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2
1,1,2-Trichloroethane	0.5	5	< 0.25	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.25	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28
1,1-Dichloroethane	0.7	7	< 0.5	< 0.29	< 0.31	< 0.31	< 0.31	< 0.31	< 0.5	< 0.29	< 0.31	< 0.31	< 0.31	< 0.31
1,2,4-Trimethylbenzene	96	480	< 0.2	< 0.22	< 0.14	< 0.14	< 0.14	< 0.14	< 0.2	< 0.22	< 0.14	< 0.14	< 0.14	< 0.14
1,2-Dibromoethane	0.005	0.05	< 0.2	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.2	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36
1,2-Dichlorobenzene	60	600	< 0.2	< 0.21	< 0.27	< 0.27	< 0.27	< 0.27	< 0.2	< 0.21	< 0.27	< 0.27	< 0.27	< 0.27
1,2-Dichloropropane	0.5	5	< 0.5	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2
1,2,3-Trichlorobenzene	NE	NE	< 0.25	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.25	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24
1,2,4-Trichlorobenzene	14	70	< 0.25	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.25	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31
1,3,5-Trimethylbenzene	96	480	< 0.2	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.2	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.5	5	< 0.2	< 0.12	< 0.074	< 0.074	< 0.074	< 0.074	< 0.2	< 0.12	< 0.074	< 0.074	< 0.074	< 0.074
Bromodichloromethane	0.06	0.6	< 0.2	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.2	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17
Bromoform	0.44	4.4	< 0.2	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.2	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28
Bromomethane	1	10	< 0.5	< 0.49	< 0.31	< 0.31	< 0.31	< 0.31	< 0.5	< 0.49	< 0.31	< 0.31	< 0.31	< 0.31
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.5	5	< 0.8	< 0.28	< 0.26	< 0.26	< 0.26	< 0.26	< 0.8	< 0.28	< 0.26	< 0.26	< 0.26	< 0.26
Chloroform	0.6	6	< 0.2	< 0.25	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.25	< 0.2	< 0.2	< 0.2	< 0.2
Chloromethane	3	30	< 0.3	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.3	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18
cis-1,2-Dichloroethene	7	70	< 0.5	< 0.22	< 0.12	< 0.12	< 0.12	< 0.12	< 0.5	< 0.22	< 0.12	< 0.12	< 0.12	< 0.12
Dichlorodifluoromethane	200	1000	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2
Ethylbenzene	140	700	< 0.5	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13	< 0.5	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13
Isopropylbenzene	NE	NE	< 0.2	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.2	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	12	60	< 0.5	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.5	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24
Methylene chloride	0.5	5	< 1	< 0.63	< 0.68	< 0.68	< 0.68	< 0.68	< 1	< 0.63	< 0.68	< 0.68	< 0.68	< 0.68
Naphthalene	10	100	< 0.25	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.25	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16
n-Butylbenzene	NE	NE	< 0.2	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.2	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NE	< 0.5	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.5	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NE	< 0.2	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.2	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17
sec-Butylbenzene	NE	NE	< 0.25	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.25	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15
Styrene	10	100	< 0.5	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.5	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1
tert-Butylbenzene	NE	NE	< 0.2	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.2	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14
Tetrachloroethene	0.5	5	< 0.5	< 0.22	< 0.17	< 0.17	< 0.17	< 0.17	< 0.5	< 0.22	< 0.17	< 0.17	< 0.17	< 0.17
Toluene	160	800	< 0.5	< 0.15	< 0.11	< 0.11	< 0.11	< 0.11	< 0.5	< 0.15	< 0.11	< 0.11	< 0.11	< 0.11
trans-1,2-Dichloroethene	20	100	< 0.5	< 0.27	< 0.25	< 0.25	< 0.25	< 0.25	< 0.5	< 0.27	< 0.25	< 0.25	< 0.25	< 0.25
Trichloroethene	0.5	5	< 0.2	< 0.18	< 0.19	< 0.19	< 0.19	< 0.19	< 0.2	< 0.18	< 0.19	< 0.19	< 0.19	< 0.19
Vinyl chloride	0.02	0.2	< 0.2	< 0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.13	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes, Total	400	2000	< 0.5	< 0.3	< 0.068	< 0.068	< 0.068	< 0.068	< 0.5	< 0.3	< 0.068	< 0.068	< 0.068	< 0.068
<b>Total PCBs</b>														
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>														
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>														
Total Dissolved Solids	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-9D 44 - 49 ft 09/09/2011	MW-9D 44 - 49 ft 04/11/2012	MW-9D <sup>3</sup> 44 - 49 ft 04/11/2012	MW-9D 44 - 49 ft 01/15/2013	MW-9D 44 - 49 ft 04/18/2013	MW-9D 44 - 49 ft 07/18/2013	MW-9D 44 - 49 ft 10/04/2013	MW-9D 44 - 49 ft 04/16/2014	MW-9D 44 - 49 ft 10/14/2014	MW-9D 44 - 49 ft 04/09/2015	MW-9D 44 - 49 ft 10/20/2015	MW-9D 44 - 49 ft 10/13/2016	MW-9D 44 - 49 ft 10/04/2017
<b>VOCs</b>																
1,1,1,2-Tetrachloroethane	7	70		< 0.25	< 0.31	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 0.11
1,1,1-Trichloroethane	40	200		< 0.5	< 0.26	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.38	< 0.10	< 0.1
1,1,2-Trichloroethane	0.5	5		< 0.25	< 0.3	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 0.1
1,1-Dichloroethane	0.7	7		< 0.5	< 0.29	< 0.29	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 0.14
1,2,4-Trimethylbenzene	96	480		< 0.2	< 0.22	< 0.22	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 0.06
1,2-Dibromoethane	0.005	0.05		< 0.2	< 0.45	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 0.13
1,2-Dichlorobenzene	60	600		< 0.2	< 0.21	< 0.21	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	< 0.076
1,2-Dichloropropane	0.5	5		< 0.5	< 0.36	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.43	< 0.10	< 0.1
1,2,3-Trichlorobenzene	NE	NE		< 0.25	< 0.36	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.045
1,2,4-Trichlorobenzene	14	70		< 0.25	< 0.22	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	< 0.077
1,3,5-Trimethylbenzene	96	480		< 0.2	< 0.23	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 0.075
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 3
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 0.95
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 0.77
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	17 BJ
Benzene	0.5	5		< 0.2	< 0.12	< 0.12	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.089	< 0.089
Bromodichloromethane	0.06	0.6		< 0.2	< 0.23	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 0.077
Bromoform	0.44	4.4		< 0.2	< 0.45	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.088
Bromomethane	1	10		< 0.5	< 0.49	< 0.49	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31 *	< 0.31	< 0.80	< 0.59	< 0.59
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.16 J	< 0.053
Carbon tetrachloride	0.5	5		< 0.8	< 0.28	< 0.28	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	0.09 J
Chloroform	0.6	6		< 0.2	< 0.25	< 0.25	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.37	< 0.062	< 0.062
Chloromethane	3	30		< 0.3	< 0.24	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	0.63 BJ	<b>4.7</b>
cis-1,2-Dichloroethene	7	70		< 0.5	< 0.22	< 0.22	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.41	< 0.11	< 0.11
Dichlorodifluoromethane	200	1000		< 0.5	< 0.26	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.54	< 0.11	< 0.11
Ethylbenzene	140	700		< 0.5	< 0.14	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 0.054
Isopropylbenzene	NE	NE		< 0.2	< 0.21	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.081
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.057	< 0.057
Methyl tert-butyl ether	12	60		< 0.5	< 0.28	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.39	< 0.14	< 0.14
Methylene chloride	0.5	5		< 1	<b>9</b>	< 0.63	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 0.14	< 0.14
Naphthalene	10	100		< 0.25	< 0.24	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 0.088
n-Butylbenzene	NE	NE		< 0.2	< 0.21	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.14
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21
n-Propylbenzene	NE	NE		< 0.5	< 0.19	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.1
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.058	< 0.058
p-Isopropyltoluene	NE	NE		< 0.2	< 0.24	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.085
sec-Butylbenzene	NE	NE		< 0.25	< 0.19	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.13
Styrene	10	100		< 0.5	< 0.26	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.39	< 0.065	0.08 BJ
tert-Butylbenzene	NE	NE		< 0.2	< 0.24	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 0.12
Tetrachloroethene	0.5	5		< 0.5	< 0.22	< 0.22	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	0.20 J	< 0.081
Toluene	160	800		< 0.5	< 0.15	< 0.15	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	< 0.053	< 0.053
trans-1,2-Dichloroethene	20	100		< 0.5	< 0.27	< 0.27	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	< 0.11	< 0.11
Trichloroethene	0.5	5		< 0.2	< 0.18	< 0.18	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.16	< 0.062	< 0.062
Vinyl chloride	0.02	0.2		< 0.2	< 0.13	< 0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.20	< 0.16	< 0.16
Xylenes, Total	400	2000		< 0.5	< 0.3	< 0.3	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.22	< 0.058	< 0.12
<b>Total PCBs</b>																
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>																
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>																
Total Dissolved Solids	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes on Page 55.

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-9D2 64 - 69 ft 09/09/2011	MW-9D2 64 - 69 ft 04/11/2012	MW-9D2 64 - 69 ft 01/15/2013	MW-9D2 64 - 69 ft 04/18/2013	MW-9D2 64 - 69 ft 07/18/2013	MW-9D2 64 - 69 ft 10/04/2013	MW-9D2 64 - 69 ft 04/16/2014	MW-9D2 64 - 69 ft 10/14/2014	MW-9D2 64 - 69 ft 04/10/2015	MW-9D2 64 - 69 ft 10/20/2015	MW-9D2 64 - 69 ft 01/21/2016	MW-9D2 64 - 69 ft 04/20/2016	MW-9D2 64 - 69 ft 07/19/2016	MW-9D2 64 - 69 ft 10/13/2016	MW-9D2 64 - 69 ft 1/19/2017	MW-9D2 64 - 69 ft 04/12/2017	MW-9D2 64 - 69 ft 10/04/2017
<b>VOCS</b>																				
1,1,1,2-Tetrachloroethane	7	70		< 0.25	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
1,1,1-Trichloroethane	40	200		< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,2-Trichloroethane	0.5	5		< 0.25	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,1-Dichloroethene	0.7	7		< 0.5	< 0.29	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
1,2,4-Trimethylbenzene	96	480		< 0.2	< 0.22	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
1,2-Dibromoethane	0.005	0.05		< 0.2	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,2-Dichlorobenzene	60	600		< 0.2	< 0.21	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27
1,2-Dichloropropane	0.5	5		< 0.5	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2,3-Trichlorobenzene	NE	NE		< 0.25	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
1,2,4-Trichlorobenzene	14	70		< 0.25	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
1,3,5-Trimethylbenzene	96	480		< 0.2	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.5	5		< 0.2	< 0.12	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	1.1 J	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089
Bromodichloromethane	0.06	0.6		< 0.2	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077
Bromoform	0.44	4.4		< 0.2	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
Bromomethane	1	10		< 0.5	< 0.49	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.5	5		< 0.8	< 0.28	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038
Chloroform	0.6	6		< 0.2	< 0.25	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.37	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062
Chloromethane	3	30		< 0.3	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	0.29 J	< 0.16	0.40 J	0.55 BJ	0.49 BJ	< 0.16
cis-1,2-Dichloroethene	7	70		<b>12</b>	<b>11</b>	<b>14</b>	<b>16</b>	<b>16</b>	<b>18</b>	<b>19</b>	<b>24</b>	<b>26</b>	<b>32</b>	3.9	<b>34</b>	<b>31</b>	<b>35</b>	1.0 B	1.5	<b>32</b>
Dichlorodifluoromethane	200	1000		< 0.5	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.54	< 0.11	0.36 J	0.48 J	0.46 J	< 0.11	0.63
Ethylbenzene	140	700		< 0.5	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054
Isopropylbenzene	NE	NE		< 0.2	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	12	60		7.4	9.3	20	10	12	15	9.6	12	17	24	18	21	28	29 J+	2.4	2.9 J+	38
Methylene chloride	0.5	5		< 1	<b>8.8</b>	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	0.17 J	< 0.14	< 0.14	<b>1.4 BJ</b>	< 0.14	< 0.14
Naphthalene	10	100		< 0.25	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
n-Butylbenzene	NE	NE		< 0.2	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NE		< 0.5	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NE		< 0.2	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085
sec-Butylbenzene	NE	NE		< 0.25	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
Styrene	10	100		< 0.5	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.39	< 0.065	< 0.065	< 0.065	< 0.065	< 0.065	0.08 BJ
tert-Butylbenzene	NE	NE		< 0.2	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
Tetrachloroethene	0.5	5		<b>29</b>	<b>10</b>	<b>26</b>	<b>28</b>	<b>30</b>	<b>34</b>	<b>26</b>	<b>41</b>	<b>37</b>	<b>41</b>	<b>11</b>	<b>58</b>	<b>44</b>	<b>61</b>	<b>2.6 B</b>	<b>5.5</b>	<b>49</b>
Toluene	160	800		< 0.5	< 0.15	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	< 0.053	< 0.053	< 0.053	< 0.053	0.15 BJ	< 0.053
trans-1,2-Dichloroethene	20	100		< 0.5	< 0.27	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	< 0.11	0.61	0.58	0.64	< 0.11	0.65
Trichloroethene	0.5	5		<b>5</b>	<b>3.8</b>	<b>5.5</b>	<b>6</b>	<b>6.3</b>	<b>7.4</b>	<b>6.5</b>	<b>9.6</b>	<b>9.5</b>	<b>11</b>	<b>2.8</b>	<b>13</b>	<b>13</b>	<b>16</b>	<b>0.95 B</b>	<b>1.7</b>	<b>14</b>
Vinyl chloride	0.02	0.2		< 0.2	< 0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.16	< 0.16	<b>0.17 J</b>	< 0.16	< 0.16	< 0.16	<b>0.59</b>
Xylenes, Total	400	2000		< 0.5	< 0.3	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.22	< 0.058	< 0.058	< 0.058	< 0.058	< 0.12	< 0.12
<b>Total PCBs</b>																				
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>																				
Aroclor-1016	0																			

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-10S 11 - 21 ft 04/10/2012	MW-10S 11 - 21 ft 05/09/2012	MW-10S 11 - 21 ft 01/15/2013	MW-10S 11 - 21 ft 04/17/2013	MW-10S 11 - 21 ft 07/17/2013	MW-10S 11 - 21 ft 10/09/2013	MW-11S 24 - 34 ft 04/12/2012	MW-11S 24 - 34 ft 05/09/2012	MW-11S 24 - 34 ft 01/15/2013	MW-11S 24 - 34 ft 04/17/2013	MW-11S 24 - 34 ft 07/18/2013	MW-11S 24 - 34 ft 10/04/2013	MW-11S 24 - 34 ft 10/09/2013	MW-12S 3 - 13 ft 04/12/2012	MW-12S 3 - 13 ft 05/09/2012	MW-12S 3 - 13 ft 01/16/2013	MW-12S 3 - 13 ft 04/17/2013	MW-12S 3 - 13 ft 07/18/2013	MW-12S 3 - 13 ft 10/04/2013
<b>VOCS</b>																						
1,1,1,2-Tetrachloroethane	7	70		< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	NA	< 0.31	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
1,1,1-Trichloroethane	40	200		< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	NA	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,1,2-Trichloroethane	0.5	5		< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	NA	< 0.3	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,1-Dichloroethene	0.7	7		< 0.29	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.29	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	NA	< 0.29	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
1,2,4-Trimethylbenzene	96	480		0.76 J	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	0.55 J	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA	1.2	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
1,2-Dibromoethane	0.005	0.05		< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	NA	< 0.45	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,2-Dichlorobenzene	60	600		< 0.21	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.21	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	NA	< 0.21	< 0.27	0.79 J	< 0.27	< 0.27	< 0.27
1,2-Dichloropropane	0.5	5		< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	NA	< 0.36	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
1,2,3-Trichlorobenzene	NE	NE		< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	NA	< 0.36	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
1,2,4-Trichlorobenzene	14	70		< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	NA	< 0.22	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
1,3,5-Trimethylbenzene	96	480		< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	NA	< 0.23	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.5	5		< 0.12	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.12	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	NA	< 0.12	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074
Bromodichloromethane	0.06	0.6		< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	NA	< 0.23	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
Bromoform	0.44	4.4		< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	NA	< 0.45	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Bromomethane	1	10		< 0.49	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.49	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	NA	< 0.49	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.5	5		< 0.28	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.28	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	NA	< 0.28	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Chloroform	0.6	6		< 0.25	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.25	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	NA	< 0.25	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chloromethane	3	30		< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	NA	< 0.24	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
cis-1,2-Dichloroethene	7	70		< 0.22	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.22	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	NA	< 0.22	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
Dichlorodifluoromethane	200	1000		< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	NA	< 0.26	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Ethylbenzene	140	700		0.20 J	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	NA	< 0.14	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
Isopropylbenzene	NE	NE		< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA	< 0.21	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	12	60		< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	NA	< 0.28	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Methylene chloride	0.5	5		< 0.63	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.63	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	NA	< 0.63	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68
Naphthalene	10	100		< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	NA	< 0.24	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16
n-Butylbenzene	NE	NE		< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	NA	< 0.21	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NE		< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	NA	< 0.19	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NE		< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	NA	< 0.24	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
sec-Butylbenzene	NE	NE		< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	NA	< 0.19	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
Styrene	10	100		< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	NA	< 0.26	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
tert-Butylbenzene	NE	NE		< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA	< 0.24	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
Tetrachloroethene	0.5	5		< 0.22	< 0.17	0.85 J	< 0.17	< 0.17	< 0.17	< 0.22	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	NA	0.78 J	1.7	0.93 J	< 0.17	1.3	1.5
Toluene	160	800		0.54	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	0.73	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	NA	0.64	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
trans-1,2-Dichloroethene	20	100		< 0.27	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.27	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	NA	< 0.27	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Trichloroethene	0.5	5		< 0.18	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.18	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	NA	< 0.18	0.26 J	< 0.19	< 0.19	< 0.19	< 0.19
Vinyl chloride	0.02	0.2		< 0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	NA	< 0.13	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Xylenes, Total	400	2000		0.83 J	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	0.86 J	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	NA	1.6	&lt				



Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-13 44 - 48 ft 12/06/2012	MP-13 44 - 48 ft 01/19/2013	MP-13 44 - 48 ft 02/21/2013	MP-13 44 - 48 ft 04/17/2013	MP-13 44 - 48 ft 07/22/2013	MP-13 44 - 48 ft 10/07/2013	MP-13 44 - 48 ft 04/16/2014	MP-13 44 - 48 ft 10/14/2014	MP-13 44 - 48 ft 04/14/2015	MP-13 44 - 48 ft 10/16/2015	MP-13 44 - 48 ft 10/10/2016	MP-13 44 - 48 ft 10/03/2017
<b>VOCs</b>															
1,1,1,2-Tetrachloroethane	7	70		< 0.25	< 0.25	< 0.25	< 0.5	< 0.25	< 0.25	< 0.50	< 0.50	< 0.50	< 0.46	< 1.1	< 0.44
1,1,1-Trichloroethane	40	200		< 0.2	< 0.2	< 0.2	< 0.4	< 0.2	< 0.2	< 0.40	< 0.40	< 0.40	< 0.38	< 1.0	< 0.4
1,1,2-Trichloroethane	0.5	5		< 0.28	< 0.28	< 0.28	< 0.56	< 0.28	< 0.28	< 0.56	< 0.56	< 0.56	< 0.35	< 1.0	< 0.4
1,1-Dichloroethene	0.7	7		<b>0.92 J</b>	<b>1.1</b>	<b>0.88 J</b>	< 0.62	<b>0.85 J</b>	<b>1.1</b>	<b>1.3 J</b>	< 0.62	<b>1.4 J</b>	<b>0.73 J</b>	< 1.4	< 0.56
1,2,4-Trimethylbenzene	96	480		< 0.14	< 0.14	< 0.14	< 0.28	< 0.14	< 0.14	< 0.28	< 0.28	< 0.28	< 0.36	< 0.60	< 0.24
1,2-Dibromoethane	0.005	0.05		< 0.36	< 0.36	< 0.36	< 0.72	< 0.36	< 0.36	< 0.72	< 0.72	< 0.72	< 0.39	< 1.3	< 0.52
1,2-Dichlorobenzene	60	600		< 0.27	< 0.27	< 0.27	< 0.54	< 0.27	< 0.27	< 0.54	< 0.54	< 0.54	< 0.33	< 0.76	< 0.3
1,2-Dichloropropane	0.5	5		< 0.2	< 0.2	< 0.2	< 0.4	< 0.2	< 0.2	< 0.40	< 0.40	< 0.40	< 0.43	< 1.0	< 0.4
1,2,3-Trichlorobenzene	NE	NE		< 0.24	< 0.24	< 0.24	< 0.48	< 0.24	< 0.24	< 0.48	< 0.48	< 0.48	< 0.46	< 0.45	< 0.18
1,2,4-Trichlorobenzene	14	70		< 0.31	< 0.31	< 0.31	< 0.62	< 0.31	< 0.31	< 0.62	< 0.62	< 0.62	< 0.34	< 0.77	< 0.31
1,3,5-Trimethylbenzene	96	480		< 0.18	< 0.18	< 0.18	< 0.36	< 0.18	< 0.18	< 0.36	< 0.36	< 0.36	< 0.25	< 0.75	< 0.3
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 30	< 12
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 9.5	< 3.8
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 7.7	< 3.1
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 34	< 14
Benzene	0.5	5		0.34 J	0.38 J	0.32 J	0.38 J	0.34 J	0.46 J	< 0.15	< 0.15	< 0.15	< 0.15	< 0.89	< 0.36
Bromodichloromethane	0.06	0.6		< 0.17	< 0.17	< 0.17	< 0.34	< 0.17	< 0.17	< 0.34	< 0.34	< 0.34	< 0.37	< 0.77	< 0.31
Bromoform	0.44	4.4		< 0.28	< 0.28	< 0.28	< 0.56	< 0.28	< 0.28	< 0.56	< 0.56	< 0.56	< 0.48	< 0.88	< 0.35
Bromomethane	1	10		< 0.31	< 0.31	< 0.31	< 0.62	< 0.31	< 0.31	< 0.62	< 0.62 *	< 0.62	< 0.80	< 5.9	< 2.4
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.53	< 0.21
Carbon tetrachloride	0.5	5		< 0.26	< 0.26	< 0.26	< 0.52	< 0.26	< 0.26	< 0.52	< 0.52	< 0.52	< 0.38	< 0.38	< 0.15
Chloroform	0.6	6		< 0.2	< 0.2	< 0.2	< 0.4	< 0.2	< 0.2	< 0.40	< 0.40	< 0.40	< 0.37	< 0.62	< 0.25
Chloromethane	3	30		< 0.18	< 0.18	< 0.18	< 0.36	< 0.18	< 0.18	< 0.36	< 0.36	< 0.36	< 0.32	<b>4.3 BJ</b>	< 0.64
cis-1,2-Dichloroethene	7	70		<b>540</b>	<b>450</b>	<b>460</b>	<b>460</b>	<b>430</b>	<b>480</b>	<b>450</b>	<b>440</b>	<b>360</b>	<b>220</b>	<b>97</b>	<b>50</b>
Dichlorodifluoromethane	200	1000		< 0.2	< 0.2	< 0.2	< 0.4	< 0.2	< 0.2	< 0.40	< 0.40	< 0.40	< 0.54	< 1.1	< 0.44
Ethylbenzene	140	700		< 0.13	< 0.13	< 0.13	< 0.26	< 0.13	< 0.13	< 0.26	< 0.26	< 0.26	< 0.18	< 0.54	< 0.22
Isopropylbenzene	NE	NE		< 0.14	< 0.14	< 0.14	< 0.28	< 0.14	< 0.14	< 0.28	< 0.28	< 0.28	< 0.39	< 0.81	< 0.32
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.57	< 0.23
Methyl tert-butyl ether	12	60		< 0.24	< 0.24	< 0.24	< 0.48	< 0.24	< 0.24	< 0.48	< 0.48	< 0.48	< 0.39	< 1.4	< 0.56
Methylene chloride	0.5	5		< 0.68	< 0.68	< 0.68	< 1.4	< 0.68	< 0.68	< 1.4	< 1.4	< 1.4	< 1.6	< 1.4	< 0.56
Naphthalene	10	100		< 0.16	< 0.16	< 0.16	< 0.32	< 0.16	< 0.16	< 0.32	< 0.32	< 0.32	< 0.34	< 0.88	< 0.35
n-Butylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.26	< 0.13	< 0.13	< 0.26	< 0.26	< 0.26	< 0.39	< 1.4	< 0.56
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2.1	< 0.84
n-Propylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.26	< 0.13	< 0.13	< 0.26	< 0.26	< 0.26	< 0.41	< 1.0	< 0.4
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.58	< 0.23
p-Isopropyltoluene	NE	NE		< 0.17	< 0.17	< 0.17	< 0.34	< 0.17	< 0.17	< 0.34	< 0.34	< 0.34	< 0.36	< 0.85	< 0.34
sec-Butylbenzene	NE	NE		< 0.15	< 0.15	< 0.15	< 0.3	< 0.15	< 0.15	< 0.30	< 0.30	< 0.30	< 0.40	< 1.3	< 0.52
Styrene	10	100		< 0.1	< 0.1	< 0.1	< 0.2	< 0.1	< 0.1	< 0.20	< 0.20	< 0.20	< 0.39	< 0.65	< 0.26
tert-Butylbenzene	NE	NE		< 0.14	< 0.14	< 0.14	< 0.28	< 0.14	< 0.14	< 0.28	< 0.28	< 0.28	< 0.40	< 1.2	< 0.48
Tetrachloroethene	0.5	5		<b>640</b>	<b>760</b>	<b>630</b>	<b>680</b>	<b>720</b>	<b>800</b>	<b>750</b>	<b>750</b>	<b>580</b>	<b>360</b>	<b>240</b>	<b>160</b>
Toluene	160	800		< 0.11	< 0.11	< 0.11	< 0.22	< 0.11	< 0.11	< 0.22	< 0.22	< 0.22	< 0.15	< 0.53	< 0.21
trans-1,2-Dichloroethene	20	100		7.3	6.7	6.1	6.9	6.9	8.4	8.5	7.7	8.4	4.0	< 1.1	0.68 J
Trichloroethene	0.5	5		<b>230</b>	<b>200</b>	<b>220</b>	<b>230</b>	<b>220</b>	<b>290</b>	<b>300</b>	<b>260</b>	<b>320</b>	<b>170</b>	<b>93</b>	<b>59</b>
Vinyl chloride	0.02	0.2		<b>15</b>	<b>17</b>	<b>17</b>	<b>13</b>	<b>13</b>	<b>17</b>	<b>14</b>	<b>16</b>	<b>16</b>	<b>8.6</b>	<b>3.7 J</b>	<b>1.5 J</b>
Xylenes, Total	400	2000		< 0.068	< 0.068	< 0.068	< 0.14	< 0.068	< 0.068	< 0.14	< 0.14	< 0.14	< 0.22	< 0.58	< 0.46
<b>Total PCBs</b>															
Aroclor-1016	0.003	0.03		< 0.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		< 0.085	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		< 0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		< 0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>															
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>															
Total Dissolved Solids	NE	NE		1400	1400	1400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-13 67 - 71 ft 12/06/2012	MP-13 67 - 71 ft 01/19/2013	MP-13 67 - 71 ft 02/21/2013	MP-13 67 - 71 ft 04/17/2013	MP-13 67 - 71 ft 07/22/2013	MP-13 67 - 71 ft 10/07/2013	MP-13 67 - 71 ft 04/16/2014	MP-13 67 - 71 ft 10/14/2014	MP-13 67 - 71 ft 04/14/2015	MP-13 67 - 71 ft 10/16/2015	MP-13 67 - 71 ft 10/10/2016	MP-13 67 - 71 ft 10/03/2017
<b>VOCs</b>															
1,1,1,2-Tetrachloroethane	7	70		< 1.3	< 1.3	< 1.3	< 2.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.92	< 1.1	< 0.22
1,1,1-Trichloroethane	40	200		< 1	< 1	< 1	< 2	< 1	< 1	< 1.0	< 1.0	< 1.0	< 0.76	< 1.0	< 0.2
1,1,2-Trichloroethane	0.5	5		< 1.4	< 1.4	< 1.4	< 2.8	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.70	< 1.0	< 0.2
1,1-Dichloroethane	0.7	7		<b>2.8 J</b>	<b>3.1 J</b>	< 1.6	< 3.1	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 0.78	< 1.4	< 0.28
1,2,4-Trimethylbenzene	96	480		< 0.7	< 0.7	< 0.7	< 1.4	< 0.7	< 0.7	< 0.70	< 0.70	< 0.70	< 0.72	< 0.60	< 0.12
1,2-Dibromoethane	0.005	0.05		< 1.8	< 1.8	< 1.8	< 3.6	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 0.77	< 1.3	< 0.26
1,2-Dichlorobenzene	60	600		< 1.4	< 1.4	< 1.4	< 2.7	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.67	< 0.76	< 0.15
1,2-Dichloropropane	0.5	5		< 1	< 1	< 1	< 2	< 1	< 1	< 1.0	< 1.0	< 1.0	< 0.86	< 1.0	< 0.2
1,2,3-Trichlorobenzene	NE	NE		< 1.2	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.92	< 0.45	< 0.09
1,2,4-Trichlorobenzene	14	70		< 1.6	< 1.6	< 1.6	< 3.1	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 0.68	< 0.77	< 0.15
1,3,5-Trimethylbenzene	96	480		< 0.9	< 0.9	< 0.9	< 1.8	< 0.9	< 0.9	< 0.90	< 0.90	< 0.90	< 0.51	< 0.75	< 0.15
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 30	< 6
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 9.5	< 1.9
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 7.7	< 1.5
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 34	< 6.8
Benzene	0.5	5		< 0.37	<b>1.1 J</b>	< 0.37	< 0.74	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.29	< 0.89	< 0.18
Bromodichloromethane	0.06	0.6		< 0.85	< 0.85	< 0.85	< 1.7	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.74	< 0.77	< 0.15
Bromoform	0.44	4.4		< 1.4	< 1.4	< 1.4	< 2.8	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.97	< 0.88	< 0.18
Bromomethane	1	10		< 1.6	< 1.6	< 1.6	< 3.1	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6 *	< 1.6	< 1.6	< 1.2
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.53	< 0.11
Carbon tetrachloride	0.5	5		< 1.3	< 1.3	< 1.3	< 2.6	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.77	< 0.38	< 0.076
Chloroform	0.6	6		< 1	< 1	< 1	< 2	< 1	< 1	< 1.0	< 1.0	< 1.0	< 0.74	< 0.62	0.18 J
Chloromethane	3	30		< 0.9	< 0.9	< 0.9	< 1.8	< 0.9	< 0.9	< 0.90	< 0.90	< 0.90	< 0.64	<b>4.7 BJ</b>	< 0.32
cis-1,2-Dichloroethane	7	70		<b>3500</b>	<b>3100</b>	<b>2900</b>	<b>3200</b>	<b>2300</b>	<b>1500</b>	<b>1300</b>	<b>810</b>	<b>710</b>	<b>470</b>	<b>89</b>	<b>24</b>
Dichlorodifluoromethane	200	1000		< 1	< 1	< 1	< 2	< 1	< 1	< 1.0	< 1.0	< 1.0	< 1.1	< 1.1	< 0.22
Ethylbenzene	140	700		< 0.65	< 0.65	< 0.65	< 1.3	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.37	< 0.54	< 0.11
Isopropylbenzene	NE	NE		< 0.7	< 0.7	< 0.7	< 1.4	< 0.7	< 0.7	< 0.70	< 0.70	< 0.70	< 0.77	< 0.81	< 0.16
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.57	< 0.11
Methyl tert-butyl ether	12	60		< 1.2	< 1.2	< 1.2	< 2.4	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.79	< 1.4	< 0.28
Methylene chloride	0.5	5		< 3.4	< 3.4	< 3.4	< 6.8	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3	< 1.4	< 0.28
Naphthalene	10	100		< 0.8	< 0.8	< 0.8	< 1.6	< 0.8	< 0.8	< 0.80	< 0.80	< 0.80	< 0.67	< 0.88	< 0.18
n-Butylbenzene	NE	NE		< 0.65	< 0.65	< 0.65	< 1.3	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.78	< 1.4	< 0.28
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2.1	< 0.42
n-Propylbenzene	NE	NE		< 0.65	< 0.65	< 0.65	< 1.3	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.83	< 1.0	< 0.2
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.58	< 0.12
p-Isopropyltoluene	NE	NE		< 0.85	< 0.85	< 0.85	< 1.7	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.72	< 0.85	< 0.17
sec-Butylbenzene	NE	NE		< 0.75	< 0.75	< 0.75	< 1.5	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.80	< 1.3	< 0.26
Styrene	10	100		< 0.5	< 0.5	< 0.5	< 1	< 0.5	< 0.5	< 0.50	< 0.50	< 0.50	< 0.77	< 0.65	< 0.13
tert-Butylbenzene	NE	NE		< 0.7	< 0.7	< 0.7	< 1.4	< 0.7	< 0.7	< 0.70	< 0.70	< 0.70	< 0.80	< 1.2	< 0.24
Tetrachloroethene	0.5	5		<b>3800</b>	<b>4300</b>	<b>2900</b>	<b>3800</b>	<b>2800</b>	<b>2000</b>	<b>1600</b>	<b>1600</b>	<b>1200</b>	<b>970</b>	<b>270</b>	<b>84</b>
Toluene	160	800		< 0.55	< 0.55	< 0.55	< 1.1	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.30	< 0.53	< 0.11
trans-1,2-Dichloroethene	20	100		<b>60</b>	<b>56</b>	<b>48</b>	<b>52</b>	<b>37</b>	<b>27</b>	<b>23</b>	<b>12</b>	<b>11</b>	< 0.70	< 1.1	0.48 J
Trichloroethene	0.5	5		<b>1100</b>	<b>1000</b>	<b>800</b>	<b>940</b>	<b>630</b>	<b>510</b>	<b>440</b>	<b>260</b>	<b>270</b>	<b>180</b>	<b>55</b>	<b>18</b>
Vinyl chloride	0.02	0.2		<b>150</b>	<b>180</b>	<b>140</b>	<b>130</b>	<b>110</b>	<b>92</b>	<b>83</b>	<b>45</b>	<b>50</b>	< 0.41	<b>3.2 J</b>	<b>0.6 J</b>
Xylenes, Total	400	2000		< 0.34	< 0.34	< 0.34	< 0.68	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.44	< 0.58	< 0.23
<b>Total PCBs</b>															
Aroclor-1016	0.003	0.03		< 0.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		< 0.085	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		< 0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		< 0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>															
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>															
Total Dissolved Solids	NE	NE		1100	1100	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-13 81 - 85 ft 12/06/2012	MP-13 81 - 85 ft 12/12/2012	MP-13 81 - 85 ft 01/19/2013	MP-13 <sup>3</sup> 81 - 85 ft 01/19/2013	MP-13 81 - 85 ft 02/21/2013	MP-13 <sup>3</sup> 81 - 85 ft 02/21/2013	MP-13 81 - 85 ft 04/17/2013	MP-13 <sup>3</sup> 81 - 85 ft 04/17/2013	MP-13 81 - 85 ft 07/22/2013	MP-13 <sup>3</sup> 81 - 85 ft 07/22/2013	MP-13 81 - 85 ft 10/07/2013	MP-13 <sup>3</sup> 81 - 85 ft 10/07/2013	MP-13 81 - 85 ft 04/16/2014	MP-13 <sup>3</sup> 81 - 85 ft 04/16/2014	MP-13 81 - 85 ft 10/14/2014	MP-13 <sup>3</sup> 81 - 85 ft 04/14/2015	MP-13 81 - 85 ft 04/14/2015	MP-13 81 - 85 ft 10/16/2015	MP-13 <sup>3</sup> 81 - 85 ft 10/16/2015	MP-13 81 - 85 ft 10/10/2016	MP-13 <sup>3</sup> 81 - 85 ft 10/03/2017
<b>VOCS</b>																								
1,1,1,2-Tetrachloroethane	7	70	< 2.5	NA	4.8 J	4.1 J	4.5 J	4.8 J	< 5	< 2.5	< 2.5	< 2.5	< 1.3	< 1.3	< 2.5	< 5.0	< 2.5	< 2.5	< 2.5	< 9.2	< 9.2	< 22	< 11	
1,1,1-Trichloroethane	40	200	< 2	NA	< 2	< 2	< 1	< 1	< 4	< 2	< 2	< 2	< 1	< 1	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 7.6	< 7.6	< 20	< 10	
1,1,2-Trichloroethane	0.5	5	< 2.8	NA	< 2.8	< 2.8	< 1.4	< 1.4	< 5.6	< 2.8	< 2.8	< 2.8	< 1.4	< 1.4	< 2.8	< 5.6	< 2.8	< 2.8	< 2.8	< 7.0	< 7.0	< 20	< 10	
1,1-Dichloroethene	0.7	7	< 3.1	NA	< 3.1	4.2 J	4.2 J	3.5 J	< 6.2	< 3.1	< 3.1	< 3.1	< 1.6	< 1.6	< 3.1	< 6.2	< 3.1	< 3.1	< 3.1	< 7.8	< 7.8	< 28	< 14	
1,2,4-Trimethylbenzene	96	480	< 1.4	NA	< 1.4	< 1.4	< 0.7	< 0.7	< 2.8	< 1.4	< 1.4	< 1.4	< 0.7	< 0.7	< 1.4	< 2.8	< 1.4	< 1.4	< 1.4	< 7.2	< 7.2	< 12	< 6	
1,2-Dibromoethane	0.005	0.05	< 3.6	NA	< 3.6	< 3.6	< 1.8	< 1.8	< 7.2	< 3.6	< 3.6	< 3.6	< 1.8	< 1.8	< 3.6	< 7.2	< 3.6	< 3.6	< 3.6	< 7.7	< 7.7	< 26	< 13	
1,2-Dichlorobenzene	60	600	< 2.7	NA	< 2.7	< 2.7	< 1.4	< 1.4	< 5.4	< 2.7	< 2.7	< 2.7	< 1.4	< 1.4	< 2.7	< 5.4	< 2.7	< 2.7	< 2.7	< 6.7	< 6.7	< 15	< 7.6	
1,2-Dichloropropane	0.5	5	< 2	NA	< 2	< 2	< 1	< 1	< 4	< 2	< 2	< 2	< 1	< 1	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 8.6	< 8.6	< 20	< 10	
1,2,3-Trichlorobenzene	NE	NE	< 2.4	NA	< 2.4	< 2.4	< 1.2	< 1.2	< 4.8	< 2.4	< 2.4	< 2.4	< 1.2	< 1.2	< 2.4	< 4.8	< 2.4	< 2.4	< 2.4	< 9.2	< 9.2	< 9.0	< 4.5	
1,2,4-Trichlorobenzene	14	70	< 3.1	NA	< 3.1	< 3.1	< 1.6	< 1.6	< 6.2	< 3.1	< 3.1	< 3.1	< 1.6	< 1.6	< 3.1	< 6.2	< 3.1	< 3.1	< 3.1	< 6.8	< 6.8	< 15	< 7.7	
1,3,5-Trimethylbenzene	96	480	< 1.8	NA	< 1.8	< 1.8	< 0.9	< 0.9	< 3.6	< 1.8	< 1.8	< 1.8	< 0.9	< 0.9	< 1.8	< 3.6	< 1.8	< 1.8	< 1.8	< 5.1	< 5.1	< 15	< 7.5	
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 600	< 300	
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 190	< 95	
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 150	< 77	
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 680	500 J	
Benzene	0.5	5	< 0.74	NA	< 0.74	< 0.74	< 0.37	< 0.37	< 1.5	< 0.74	< 0.74	< 0.74	< 0.37	< 0.37	< 0.74	< 1.5	< 0.74	< 0.74	< 0.74	< 2.9	< 2.9	< 18	< 8.9	
Bromodichloromethane	0.06	0.6	< 1.7	NA	< 1.7	< 1.7	< 0.85	< 0.85	< 3.4	< 1.7	< 1.7	< 1.7	< 0.85	< 0.85	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7	< 7.4	< 7.4	< 15	< 7.7	
Bromoform	0.44	4.4	< 2.8	NA	< 2.8	< 2.8	< 1.4	< 1.4	< 5.6	< 2.8	< 2.8	< 2.8	< 1.4	< 1.4	< 2.8	< 5.6	< 2.8	< 2.8	< 2.8	< 9.7	< 9.7	< 18	< 8.8	
Bromomethane	1	10	< 3.1	NA	< 3.1	< 3.1	< 1.6	< 1.6	< 6.2	< 3.1	< 3.1	< 3.1	< 1.6	< 1.6	< 3.1	< 6.2	< 3.1	< 3.1	< 3.1 *	< 16	< 16	< 120	< 59	
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 11	< 5.3	
Carbon tetrachloride	0.5	5	< 2.6	NA	< 2.6	< 2.6	< 1.3	< 1.3	< 5.2	< 2.6	< 2.6	< 2.6	< 1.3	< 1.3	< 2.6	< 5.2	< 2.6	< 2.6	< 2.6	< 7.7	< 7.7	< 7.6	< 3.8	
Chloroform	0.6	6	< 2	NA	< 2	< 2	< 1	< 1	< 4	< 2	< 2	< 2	< 1	< 1	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 7.4	< 7.4	< 12	< 6.2	
Chloromethane	3	30	< 1.8	NA	< 1.8	< 1.8	< 0.9	< 0.9	< 3.6	< 1.8	< 1.8	< 1.8	< 0.9	< 0.9	< 1.8	< 3.6	< 1.8	< 1.8	< 1.8	< 6.4	< 6.4	< 32	< 16	
cis-1,2-Dichloroethene	7	70	1900	NA	1800	1800	2100	2300	2700	2400	1700	1800	1200	1200	2200	2400	1700	1600	2000	1900	1800	930	670	
Dichlorodifluoromethane	200	1000	< 2	NA	< 2	< 2	< 1	< 1	< 4	< 2	< 2	< 2	< 1	< 1	< 2.0	< 4.0	< 2.0	< 2.0	< 2.0	< 11	< 11	< 22	< 11	
Ethylbenzene	140	700	< 1.3	NA	< 1.3	< 1.3	< 0.65	< 0.65	< 2.6	< 1.3	< 1.3	< 1.3	< 0.65	< 0.65	< 1.3	< 2.6	< 1.3	< 1.3	< 1.3	< 3.7	< 3.7	< 11	< 5.4	
Isopropylbenzene	NE	NE	< 1.4	NA	< 1.4	< 1.4	< 0.7	< 0.7	< 2.8	< 1.4	< 1.4	< 1.4	< 0.7	< 0.7	< 1.4	< 2.8	< 1.4	< 1.4	< 1.4	< 7.7	< 7.7	< 16	< 8.1	
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 11	6 BJ	
Methyl tert-butyl ether	12	60	< 2.4	NA	< 2.4	< 2.4	< 1.2	< 1.2	< 4.8	< 2.4	< 2.4	< 2.4	< 1.2	< 1.2	< 2.4	< 4.8	< 2.4	< 2.4	< 2.4	< 7.9	< 7.9	< 28	< 14	
Methylene chloride	0.5	5	< 6.8	NA	< 6.8	< 6.8	< 3.4	< 3.4	< 14	< 6.8	< 6.8	< 6.8	< 3.4	< 3.4	< 6.8	< 14	< 6.8	< 6.8	< 6.8	< 33	< 33	< 28	< 14	
Naphthalene	10	100	< 1.6	NA	< 1.6	< 1.6	< 0.8	< 0.8	< 3.2	< 1.6	< 1.6	< 1.6	< 0.8	< 0.8	< 1.6	< 3.2	< 1.6	< 1.6	< 1.6	< 6.7	< 6.7	< 18	< 8.8	
n-Butylbenzene	NE	NE	< 1.3	NA	< 1.3	< 1.3	< 0.65	< 0.65	< 2.6	< 1.3	< 1.3	< 1.3	< 0.65	< 0.65	< 1.3	< 2.6	< 1.3	< 1.3	< 1.3	< 7.8	< 7.8	< 28	< 14	
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 42	< 21	
n-Propylbenzene	NE	NE	< 1.3	NA	< 1.3	< 1.3	< 0.65	< 0.65	< 2.6	< 1.3	< 1.3	< 1.3	< 0.65	< 0.65	< 1.3	< 2.6	< 1.3	< 1.3	< 1.3	< 8.3	< 8.3	< 20	< 10	
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 12	< 5.8	
p-Isopropyltoluene	NE	NE	< 1.7	NA	< 1.7	< 1.7	< 0.85	< 0.85	< 3.4	< 1.7	< 1.7	< 1.7	< 0.85	< 0.85	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7	< 7.2	< 7.2	< 17	< 8.5	
sec-Butylbenzene	NE	NE	< 1.5	NA	< 1.5	< 1.5	< 0.75	< 0.75	< 3	< 1.5	< 1.5	< 1.5	< 0.75	< 0.75	< 1.5	< 3.0	< 1.5	< 1.5	< 1.5	< 8.0	< 8.0	< 26	< 13	
Styrene	10	100	< 1	NA	< 1	< 1	< 0.5	< 0.5	< 2	< 1	< 1	< 1	< 0.5	< 0.5	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 7.7	< 7.7	< 13	< 6.5	
tert-Butylbenzene	NE	NE	< 1.4	NA	< 1.4	< 1.4	< 0.7	< 0.7	< 2.8	< 1.4	< 1.4	< 1.4	< 0.7	< 0.7	< 1.4	< 2.8	< 1.4	< 1.4	< 1.4	< 8.0	< 8.0	< 24	< 12	
Tetrachloroethene	0.5	5	5600	NA	6800	7400	7000	7100	7900	7000	6800	6300	5400	5200	7900	7800	8000	6700	11000	9700	9200	4800	3200	
Toluene	160	800	< 1.1	NA	< 1.1	< 0.55	< 0.55	< 2.2	< 1.1	< 1.1	< 1.1	< 0.55	< 0.55	< 1.1	< 2.2	< 1.1	< 1.1	< 1.1	< 1.1	< 3.0	< 3.0	< 11	< 5.3	
trans-1,2-Dichloroethene	20	100	38	NA	37	38	40	48	35	29	31	19	19	39	41	25	27	34	34	< 7.0	< 7.0	< 22	12 J	
Trichloroethene	0.5	5	940	NA	1100	1000	1100	1000	1200	940	900	900	660	640	1100	1100	730	780	980	960	870	500	390	
Vinyl chloride	0.02	0.2	64	NA	120	110	110	110	99	71	75	75	48	48	87	95	55	72	89	110	92	52 J	54	
Xylenes, Total	400	2000	< 0.68	NA	< 0.68	< 0.68	< 0.34	< 0.34	< 1.4	< 0.68	< 0.68	< 0.68	< 0.34	< 0.34										

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-13 102 - 106 ft 12/04/2012	MP-13 102 - 106 ft 01/18/2013	MP-13 102 - 106 ft 02/21/2013	MP-13 102 - 106 ft 04/17/2013	MP-13 102 - 106 ft 07/22/2013	MP-13 102 - 106 ft 10/07/2013	MP-13 102 - 106 ft 04/16/2014	MP-13 102 - 106 ft 10/14/2014	MP-13 102 - 106 ft 04/14/2015	MP-13 102 - 106 ft 10/16/2015	MP-13 102 - 106 ft 10/10/2016	MP-13 102 - 106 ft 10/03/2017
<b>VOCS</b>															
1,1,1,2-Tetrachloroethane	7	70		< 1.3	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 4.6	< 2.2	< 2.8
1,1,1-Trichloroethane	40	200		< 1	< 0.4	< 0.4	< 1	< 1	< 1	< 1.0	< 1.0	< 1.0	< 3.8	< 2.0	< 2.5
1,1,2-Trichloroethane	0.5	5		< 1.4	< 0.56	< 0.56	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 3.5	< 2.0	< 2.5
1,1-Dichloroethene	0.7	7		< 1.6	< 0.62	< 0.62	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 3.9	< 2.8	< 3.5
1,2,4-Trimethylbenzene	96	480		< 0.7	< 0.28	< 0.28	< 0.7	< 0.7	< 0.7	< 0.70	< 0.70	< 0.70	< 3.6	< 1.2	< 1.5
1,2-Dibromoethane	0.005	0.05		< 1.8	< 0.72	< 0.72	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 3.9	< 2.6	< 3.3
1,2-Dichlorobenzene	60	600		< 1.4	< 0.54	< 0.54	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 3.3	< 1.5	< 1.9
1,2-Dichloropropane	0.5	5		< 1	< 0.4	< 0.4	< 1	< 1	< 1	< 1.0	< 1.0	< 1.0	< 4.3	< 2.0	< 2.5
1,2,3-Trichlorobenzene	NE	NE		< 1.2	< 0.48	< 0.48	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 4.6	< 0.90	< 1.1
1,2,4-Trichlorobenzene	14	70		< 1.6	< 0.62	< 0.62	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 3.4	< 1.5	< 1.9
1,3,5-Trimethylbenzene	96	480		< 0.9	< 0.36	< 0.36	< 0.9	< 0.9	< 0.9	< 0.90	< 0.90	< 0.90	< 2.5	< 1.5	< 1.9
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 60	< 75
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 19	< 24
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 15	< 19
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 68	< 85
Benzene	0.5	5		< 0.37	< 0.15	< 0.15	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 1.5	< 1.8	< 2.2
Bromodichloromethane	0.06	0.6		< 0.85	< 0.34	< 0.34	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 3.7	< 1.5	< 1.9
Bromoform	0.44	4.4		< 1.4	< 0.56	< 0.56	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 4.8	< 1.8	< 2.2
Bromomethane	1	10		< 1.6	< 0.62	< 0.62	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6*	< 1.6	< 8.0	< 12	< 15
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.1	< 1.3
Carbon tetrachloride	0.5	5		< 1.3	< 0.52	< 0.52	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 3.8	< 0.76	< 0.95
Chloroform	0.6	6		< 1	< 0.4	< 0.4	< 1	< 1	< 1	< 1.0	< 1.0	< 1.0	< 3.7	< 1.2	< 1.6
Chloromethane	3	30		< 0.9	< 0.36	< 0.36	< 0.9	< 0.9	< 0.9	< 0.90	< 0.90	< 0.90	< 3.2	<b>9.8 BJ</b>	< 4
cis-1,2-Dichloroethene	7	70		<b>1100</b>	<b>690</b>	<b>520</b>	<b>720</b>	<b>660</b>	<b>600</b>	<b>770</b>	<b>730</b>	<b>980</b>	<b>1100</b>	<b>200</b>	<b>350</b>
Dichlorodifluoromethane	200	1000		< 1	< 0.4	< 0.4	< 1	< 1	< 1	< 1.0	< 1.0	< 1.0	< 5.4	< 2.2	< 2.8
Ethylbenzene	140	700		< 0.65	< 0.26	< 0.26	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 1.8	< 1.1	< 1.4
Isopropylbenzene	NE	NE		< 0.7	< 0.28	< 0.28	< 0.7	< 0.7	< 0.7	< 0.70	< 0.70	< 0.70	< 3.9	< 1.6	< 2
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.1	< 1.4
Methyl tert-butyl ether	12	60		< 1.2	< 0.48	< 0.48	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 3.9	< 2.8	< 3.5
Methylene chloride	0.5	5		< 3.4	< 1.4	< 1.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 16	< 2.8	< 3.5
Naphthalene	10	100		< 0.8	< 0.32	< 0.32	< 0.8	< 0.8	< 0.8	< 0.80	< 0.80	< 0.80	< 3.4	< 1.8	< 2.2
n-Butylbenzene	NE	NE		< 0.65	< 0.26	< 0.26	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 3.9	< 2.8	< 3.5
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.2	< 5.3
n-Propylbenzene	NE	NE		< 0.65	< 0.26	< 0.26	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 4.1	< 2.0	< 2.5
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.2	< 1.5
p-Isopropyltoluene	NE	NE		< 0.85	< 0.34	< 0.34	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 3.6	< 1.7	< 2.1
sec-Butylbenzene	NE	NE		< 0.75	< 0.3	< 0.3	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 4.0	< 2.6	< 3.3
Styrene	10	100		< 0.5	< 0.2	< 0.2	< 0.5	< 0.5	< 0.5	< 0.50	< 0.50	< 0.50	< 3.9	< 1.3	1.8 BJ
tert-Butylbenzene	NE	NE		< 0.7	< 0.28	< 0.28	< 0.7	< 0.7	< 0.7	< 0.70	< 0.70	< 0.70	< 4.0	< 2.4	< 3
Tetrachloroethene	0.5	5		<b>1800</b>	<b>1100</b>	<b>670</b>	<b>1400</b>	<b>1500</b>	<b>1900</b>	<b>1600</b>	<b>2000</b>	<b>2100</b>	<b>4600</b>	<b>870</b>	<b>970</b>
Toluene	160	800		< 0.55	< 0.22	< 0.22	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 1.5	< 1.1	< 1.3
trans-1,2-Dichloroethene	20	100		15	9.5	4.8	6.6	6.0	7.0	9.8	8.1	13	< 3.5	3.2 J	7.3 J
Trichloroethene	0.5	5		<b>440</b>	<b>330</b>	<b>270</b>	<b>500</b>	<b>450</b>	<b>490</b>	<b>580</b>	<b>530</b>	<b>680</b>	<b>930</b>	<b>230</b>	<b>230</b>
Vinyl chloride	0.02	0.2		<b>33</b>	<b>23</b>	<b>13</b>	<b>20</b>	<b>19</b>	<b>20</b>	<b>23</b>	<b>22</b>	<b>41</b>	<b>44</b>	< 3.2	< 4
Xylenes, Total	400	2000		< 0.34	< 0.14	< 0.14	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 2.2	< 1.2	< 2.9
<b>Total PCBs</b>															
Aroclor-1016	0.003	0.03		< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		< 0.083	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		< 0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		< 0.099	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>															
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>															
Total Dissolved Solids	NE	NE		1100	970	960	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-13 121 - 125 ft 12/04/2012	MP-13 <sup>3</sup> 121 - 125 ft 12/04/2012	MP-13 121 - 125 ft 01/18/2013	MP-13 121 - 125 ft 02/20/2013	MP-13 121 - 125 ft 04/17/2013	MP-13 121 - 125 ft 07/22/2013	MP-13 121 - 125 ft 10/07/2013	MP-13 121 - 125 ft 04/16/2014	MP-13 121 - 125 ft 10/14/2014	MP-13 121 - 125 ft 04/14/2015	MP-13 121 - 125 ft 10/16/2015	MP-13 121 - 125 ft 10/10/2016	MP-13 121 - 125 ft 10/03/2017
<b>VOCS</b>																
1,1,1,2-Tetrachloroethane	7	70		< 0.5	< 1.3	< 1.3	NA	< 5	< 2.5	1.1	< 5.0	< 2.5	< 2.5	< 9.2	< 11	< 5.5
1,1,1-Trichloroethane	40	200		< 0.4	< 1	< 1	NA	< 4	< 2	< 0.2	< 4.0	< 2.0	< 2.0	< 7.6	< 10	< 5
1,1,2-Trichloroethane	0.5	5		< 0.56	< 1.4	< 1.4	NA	< 5.6	< 2.8	< 0.28	< 5.6	< 2.8	< 2.8	< 7.0	< 10	< 5
1,1-Dichloroethene	0.7	7		< 0.62	< 1.6	< 1.6	NA	< 6.2	< 3.1	< 0.31	< 6.2	< 3.1	< 3.1	< 7.8	< 14	< 7
1,2,4-Trimethylbenzene	96	480		< 0.28	< 0.7	< 0.7	NA	< 2.8	< 1.4	< 0.14	< 2.8	< 1.4	< 1.4	< 7.2	< 6.0	< 3
1,2-Dibromoethane	0.005	0.05		< 0.72	< 1.8	< 1.8	NA	< 7.2	< 3.6	< 0.36	< 7.2	< 3.6	< 3.6	< 7.7	< 13	< 6.5
1,2-Dichlorobenzene	60	600		< 0.54	< 1.4	< 1.4	NA	< 5.4	< 2.7	< 0.27	< 5.4	< 2.7	< 2.7	< 6.7	< 7.6	< 3.8
1,2-Dichloropropane	0.5	5		< 0.4	< 1	< 1	NA	< 4	< 2	< 0.2	< 4.0	< 2.0	< 2.0	< 8.6	< 10	< 5
1,2,3-Trichlorobenzene	NE	NE		< 0.48	< 1.2	< 1.2	NA	< 4.8	< 2.4	< 0.24	< 4.8	< 2.4	< 2.4	< 9.2	< 4.5	< 2.3
1,2,4-Trichlorobenzene	14	70		< 0.62	< 1.6	< 1.6	NA	< 6.2	< 3.1	< 0.31	< 6.2	< 3.1	< 3.1	< 6.8	< 7.7	< 3.9
1,3,5-Trimethylbenzene	96	480		< 0.36	< 0.9	< 0.9	NA	< 3.6	< 1.8	< 0.18	< 3.6	< 1.8	< 1.8	< 5.1	< 7.5	< 3.8
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 300	< 150
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 95	< 48
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 77	< 39
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 340	280 BJ
Benzene	0.5	5		< 0.15	< 0.37	< 0.37	NA	< 1.5	< 0.74	0.29 J	< 1.5	< 0.74	< 0.74	< 2.9	< 8.9	< 4.5
Bromodichloromethane	0.06	0.6		< 0.34	< 0.85	< 0.85	NA	< 3.4	< 1.7	< 0.17	< 3.4	< 1.7	< 1.7	< 7.4	< 7.7	< 3.9
Bromoform	0.44	4.4		< 0.56	< 1.4	< 1.4	NA	< 5.6	< 2.8	< 0.28	< 5.6	< 2.8	< 2.8	< 9.7	< 8.8	< 4.4
Bromomethane	1	10		< 0.62	< 1.6	< 1.6	NA	< 6.2	< 3.1	< 0.31	< 6.2	< 3.1 *	< 3.1	< 16	< 59	< 30
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.3	< 2.7
Carbon tetrachloride	0.5	5		< 0.52	< 1.3	< 1.3	NA	< 5.2	< 2.6	< 0.26	< 5.2	< 2.6	< 2.6	< 7.7	< 3.8	< 1.9
Chloroform	0.6	6		< 0.4	< 1	< 1	NA	< 4	< 2	< 0.2	< 4.0	< 2.0	< 2.0	< 7.4	< 6.2	< 3.1
Chloromethane	3	30		< 0.36	< 0.9	< 0.9	NA	< 3.6	< 1.8	< 0.18	< 3.6	< 1.8	< 1.8	< 6.4	49 BJ	9.5 J+
cis-1,2-Dichloroethene	7	70		910	970	1000	NA	930	760	650	720	630	690	820	200	240
Dichlorodifluoromethane	200	1000		< 0.4	< 1	< 1	NA	< 4	< 2	< 0.2	< 4.0	< 2.0	< 2.0	< 11	< 11	< 5.5
Ethylbenzene	140	700		< 0.26	< 0.65	< 0.65	NA	< 2.6	< 1.3	< 0.13	< 2.6	< 1.3	< 1.3	< 3.7	< 5.4	< 2.7
Isopropylbenzene	NE	NE		< 0.28	< 0.7	< 0.7	NA	< 2.8	< 1.4	< 0.14	< 2.8	< 1.4	< 1.4	< 7.7	< 8.1	< 4.1
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.7	3 BJ
Methyl tert-butyl ether	12	60		< 0.48	< 1.2	< 1.2	NA	< 4.8	< 2.4	< 0.24	< 4.8	< 2.4	< 2.4	< 7.9	< 14	< 7
Methylene chloride	0.5	5		< 1.4	< 3.4	< 3.4	NA	< 14	< 6.8	< 0.68	< 14	< 6.8	< 6.8	< 33	< 14	< 7
Naphthalene	10	100		< 0.32	< 0.8	< 0.8	NA	< 3.2	< 1.6	< 0.16	< 3.2	< 1.6	< 1.6	< 6.7	< 8.8	< 4.4
n-Butylbenzene	NE	NE		< 0.26	< 0.65	< 0.65	NA	< 2.6	< 1.3	< 0.13	< 2.6	< 1.3	< 1.3	< 7.8	< 14	< 7
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 21	< 11
n-Propylbenzene	NE	NE		< 0.26	< 0.65	< 0.65	NA	< 2.6	< 1.3	< 0.13	< 2.6	< 1.3	< 1.3	< 8.3	< 10	< 5
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.8	< 2.9
p-Isopropyltoluene	NE	NE		< 0.34	< 0.85	< 0.85	NA	< 3.4	< 1.7	< 0.17	< 3.4	< 1.7	< 1.7	< 7.2	< 8.5	< 4.3
sec-Butylbenzene	NE	NE		< 0.3	< 0.75	< 0.75	NA	< 3	< 1.5	< 0.15	< 3.0	< 1.5	< 1.5	< 8.0	< 13	< 6.5
Styrene	10	100		< 0.2	< 0.5	< 0.5	NA	< 2	< 1	< 0.1	< 2.0	< 1.0	< 1.0	< 7.7	< 6.5	3.5 BJ
tert-Butylbenzene	NE	NE		< 0.28	< 0.7	< 0.7	NA	< 2.8	< 1.4	< 0.14	< 2.8	< 1.4	< 1.4	< 8.0	< 12	< 6
Tetrachloroethene	0.5	5		1500	1500	2600	NA	7000	6300	6500	6700	4800	4300	12000	3100	3000
Toluene	160	800		< 0.22	< 0.55	< 0.55	NA	< 2.2	< 1.1	< 0.11	< 2.2	< 1.1	< 1.1	< 3.0	9.0 J	< 2.7
trans-1,2-Dichloroethene	20	100		12	15	17	NA	12 J	12	9.7	10 J	6.7 J	< 2.5	< 7.0	< 11	6 J
Trichloroethene	0.5	5		340	370	460	NA	600	510	550	710	520	640	1100	450	460
Vinyl chloride	0.02	0.2		36	37	54	NA	13	9.3	8.1	6.2 J	< 1.0	11	< 4.1	< 16	< 8
Xylenes, Total	400	2000		< 0.14	< 0.34	< 0.34	NA	< 1.4	< 0.68	< 0.068	< 1.4	< 0.68	< 0.68	< 4.4	< 5.8	< 5.8
<b>Total PCBs</b>																
Aroclor-1016	0.003	0.03		< 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		< 0.084	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		< 0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		< 0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>																
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>																
Total Dissolved Solids	NE	NE		1100	NA	1000	920	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes on Page 55.

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-13 135 - 139 ft 12/04/2012	MP-13 135 - 139 ft 01/17/2013	MP-13 135 - 139 ft 02/20/2013	MP-13 135 - 139 ft 04/17/2013	MP-13 135 - 139 ft 07/22/2013	MP-13 135 - 139 ft 10/07/2013	MP-13 135 - 139 ft 04/16/2014	MP-13 135 - 139 ft 10/14/2014	MP-13 135 - 139 ft 04/14/2015	MP-13 135 - 139 ft 10/16/2015	MP-13 135 - 139 ft 10/10/2016	MP-13 135 - 139 ft 10/03/2017	MP-13 163 - 167 ft 12/04/2012	MP-13 163 - 167 ft 01/16/2013	MP-13 163 - 167 ft 02/20/2013	MP-13 163 - 167 ft 04/17/2013	MP-13 163 - 167 ft 07/22/2013	MP-13 163 - 167 ft 10/07/2013	MP-13 163 - 167 ft 04/16/2014	MP-13 163 - 167 ft 10/14/2014	MP-13 163 - 167 ft 04/14/2015	MP-13 163 - 167 ft 10/16/2015	MP-13 163 - 167 ft 10/10/2016	MP-13 163 - 167 ft 10/03/2017	
<b>VOCs</b>																												
1,1,1,2-Tetrachloroethane	7	70		< 0.5	< 1.3	NA	< 2.5	< 2.5	< 1.3	< 2.5	< 2.5	< 2.5	< 4.6	< 11	< 5.5	< 1.3	< 0.25	NA	< 0.5	< 0.25	< 0.25	< 0.50	< 0.50	< 0.25	< 0.46	< 0.22	< 0.11	
1,1,1-Trichloroethane	40	200		< 0.4	< 1	NA	< 2	< 2	< 1	< 2.0	< 2.0	< 2.0	< 3.8	< 10	< 5	< 1	< 0.2	NA	< 0.4	< 0.2	< 0.2	< 0.40	< 0.40	< 0.20	< 0.38	< 0.20	< 0.1	
1,1,2-Trichloroethane	0.5	5		< 0.56	< 1.4	NA	< 2.8	< 2.8	< 1.4	< 2.8	< 2.8	< 2.8	< 3.5	< 10	< 5	< 1.4	< 0.28	NA	< 0.56	< 0.28	< 0.28	< 0.56	< 0.56	< 0.28	< 0.35	< 0.20	< 0.1	
1,1-Dichloroethane	0.7	7		<b>1.5 J</b>	< 1.6	NA	< 3.1	< 3.1	< 1.6	< 3.1	< 3.1	< 3.1	< 3.9	< 14	< 7	< 1.6	<b>0.97 J</b>	NA	< 0.62	< 0.31	< 0.31	< 0.62	< 0.62	< 0.31	< 0.39	< 0.28	< 0.14	
1,2,4-Trimethylbenzene	96	480		< 0.28	< 0.7	NA	< 1.4	< 1.4	< 0.7	< 1.4	< 1.4	< 1.4	< 3.6	< 6.0	< 3	< 0.7	< 0.14	NA	< 0.28	< 0.14	< 0.14	< 0.28	< 0.28	< 0.14	< 0.36	< 0.12	< 0.06	
1,2-Dibromoethane	0.005	0.05		< 0.72	< 1.8	NA	< 3.6	< 3.6	< 1.8	< 3.6	< 3.6	< 3.6	< 3.9	< 13	< 6.5	< 1.8	< 0.36	NA	< 0.72	< 0.36	< 0.36	< 0.72	< 0.72	< 0.36	< 0.39	< 0.26	< 0.13	
1,2-Dichlorobenzene	60	600		< 0.54	< 1.4	NA	< 2.7	< 2.7	< 1.4	< 2.7	< 2.7	< 2.7	< 3.3	< 7.6	< 3.8	< 1.4	< 0.27	NA	< 0.54	< 0.27	< 0.27	< 0.54	< 0.54	< 0.27	< 0.33	< 0.15	< 0.076	
1,2-Dichloropropane	0.5	5		< 0.4	< 1	NA	< 2	< 2	< 1	< 2.0	< 2.0	< 2.0	< 4.3	< 10	< 5	< 1	< 0.2	NA	< 0.4	< 0.2	< 0.2	< 0.40	< 0.40	< 0.20	< 0.43	< 0.20	< 0.1	
1,2,3-Trichlorobenzene	NE	NE		< 0.48	< 1.2	NA	< 2.4	< 2.4	< 1.2	< 2.4	< 2.4	< 2.4	< 4.6	< 4.5	< 2.3	< 1.2	< 0.24	NA	< 0.48	< 0.24	< 0.24	< 0.48	< 0.48	< 0.24	< 0.46	< 0.090	< 0.045	
1,2,4-Trichlorobenzene	14	70		< 0.62	< 1.6	NA	< 3.1	< 3.1	< 1.6	< 3.1	< 3.1	< 3.1	< 3.4	< 7.7	< 3.9	< 1.6	< 0.31	NA	< 0.62	< 0.31	< 0.31	< 0.62	< 0.62	< 0.31	< 0.34	< 0.15	< 0.077	
1,3,5-Trimethylbenzene	96	480		< 0.36	< 0.9	NA	< 1.8	< 1.8	< 0.9	< 1.8	< 1.8	< 1.8	< 2.5	< 7.5	< 3.8	< 0.9	< 0.18	NA	< 0.36	< 0.18	< 0.18	< 0.36	< 0.36	< 0.18	< 0.25	< 0.15	< 0.075	
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 300	< 150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 6.0	< 3	
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 95	< 48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 0.95
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 77	< 39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.5	< 0.77
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 340	260 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 6.8	5.2 BJ
Benzene	0.5	5		0.41 J	<b>1.1 J</b>	NA	< 0.74	< 0.74	< 0.37	< 0.74	< 0.74	< 0.74	< 1.5	< 8.9	< 4.5	< 0.37	< 0.074	NA	< 0.15	< 0.074	< 0.074	< 0.15	< 0.15	< 0.074	< 0.15	< 0.18	< 0.089	
Bromodichloromethane	0.06	0.6		< 0.34	< 0.85	NA	< 1.7	< 1.7	< 0.85	< 1.7	< 1.7	< 1.7	< 3.7	< 7.7	< 3.9	< 0.85	< 0.17	NA	< 0.34	< 0.17	< 0.17	< 0.34	< 0.34	< 0.17	< 0.37	< 0.15	< 0.077	
Bromoform	0.44	4.4		< 0.56	< 1.4	NA	< 2.8	< 2.8	< 1.4	< 2.8	< 2.8	< 2.8	< 4.8	< 8.8	< 4.4	< 1.4	< 0.28	NA	< 0.56	< 0.28	< 0.28	< 0.56	< 0.56	< 0.28	< 0.48	< 0.18	< 0.088	
Bromomethane	1	10		< 0.62	< 1.6	NA	< 3.1	< 3.1	< 1.6	< 3.1	< 3.1 *	< 3.1	< 8.0	< 59	< 30	< 1.6	< 0.31	NA	< 0.62	< 0.31	< 0.31	< 0.62	< 0.62 *	< 0.31	< 0.80	< 1.2	< 0.59	
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.3	< 2.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.11	< 0.053
Carbon tetrachloride	0.5	5		< 0.52	< 1.3	NA	< 2.6	< 2.6	< 1.3	< 2.6	< 2.6	< 2.6	< 3.8	< 3.8	< 1.9	< 1.3	< 0.26	NA	< 0.52	< 0.26	< 0.26	< 0.52	< 0.52	< 0.26	< 0.38	< 0.076	< 0.038	
Chloroform	0.6	6		< 0.4	< 1	NA	< 2	< 2	< 1	< 2.0	< 2.0	< 2.0	< 3.7	< 6.2	< 3.1	< 1	< 0.2	NA	< 0.4	< 0.2	< 0.2	< 0.40	< 0.40	< 0.20	< 0.37	< 0.12	< 0.062	
Chloromethane	3	30		< 0.36	< 0.9	NA	< 1.8	< 1.8	< 0.9	< 1.8	< 1.8	< 1.8	< 3.2	<b>46 BJ</b>	<b>11 J+</b>	< 0.9	< 0.18	NA	< 0.36	< 0.18	< 0.18	< 0.36	< 0.36	< 0.18	< 0.32	0.76 BJ	0.46 J+	
cis-1,2-Dichloroethene	7	70		<b>1100</b>	<b>910</b>	NA	<b>540</b>	<b>420</b>	<b>380</b>	<b>370</b>	<b>330</b>	<b>410</b>	<b>170</b>	<b>87</b>	<b>190</b>	<b>970</b>	<b>730</b>	NA	<b>460</b>	<b>200</b>	<b>170</b>	<b>180</b>	<b>160</b>	<b>150</b>	<b>33</b>	<b>3.8</b>	<b>3.6</b>	
Dichlorodifluoromethane	200	1000		< 0.4	< 1	NA	< 2	< 2	< 1	< 2.0	< 2.0	< 2.0	< 5.4	< 11	< 5.5	< 1	< 0.2	NA	< 0.4	< 0.2	< 0.2	< 0.40	< 0.40	< 0.20	< 0.54	< 0.22	< 0.11	
Ethylbenzene	140	700		< 0.26	< 0.65	NA	< 1.3	< 1.3	< 0.65	< 1.3	< 1.3	< 1.3	< 1.8	< 5.4	< 2.7	< 0.65	< 0.13	NA	< 0.26	< 0.13	< 0.13	< 0.26	< 0.26	< 0.13	< 0.18	< 0.11	< 0.054	
Isopropylbenzene	NE	NE		< 0.28	< 0.7	NA	< 1.4	< 1.4	< 0.7	< 1.4	< 1.4	< 1.4	< 3.9	< 8.1	< 4.1	< 0.7	< 0.14	NA	< 0.28	< 0.14	< 0.14	< 0.28	< 0.28	< 0.14	< 0.39	< 0.16	< 0.081	
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.7	< 2.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.11	< 0.057
Methyl tert-butyl ether	12	60		< 0.48	< 1.2	NA	< 2.4	< 2.4	< 1.2	< 2.4	< 2.4	< 2.4	< 3.9	< 14	< 7	< 1.2	< 0.24	NA	< 0.48	< 0.24	< 0.24	< 0.48	< 0.48	< 0.24	< 0.39	< 0.28	< 0.14	
Methylene chloride	0.5	5		< 1.4	< 3.4	NA	< 6.8	< 6.8	< 3.4	< 6.8	< 6.8	< 6.8	< 16	< 14	< 7	< 3.4	< 0.68	NA	< 1.4	< 0.68	< 0.68	< 1.4	< 1.4	< 0.68	< 1.6	< 0.28	< 0.14	
Naphthalene	10	100		< 0.32	< 0.8	NA	< 1.6	< 1.6	< 0.8	< 1.6	< 1.6	< 1.6	< 3.4	< 8.8	< 4.4	< 0.8	< 0.16	NA	< 0.32	< 0.16	< 0.16	< 0.32	< 0.32	< 0.16	< 0.34	< 0.18	< 0.088	
n-Butylbenzene	NE	NE		< 0.26	< 0.65	NA	< 1.3	< 1.3	< 0.65	< 1.3	< 1.3	< 1.3	< 3.9	< 14	< 7	< 0.65	< 0.13	NA	< 0.26	< 0.13	< 0.13	< 0.26	< 0.26	< 0.13	< 0.39	< 0.28	< 0.14	
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 21	< 11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.21
n-Propylbenzene	NE	NE		< 0.26	< 0.65	NA	< 1.3	< 1.3	< 0.65	< 1.3	< 1.3	< 1.3	< 4.1	< 10	< 5	< 0.65	< 0.13	NA	< 0.26	< 0.13	< 0.13	< 0.26	< 0.26	< 0.13	< 0.41	< 0.20	< 0.1	
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 5.8	< 2.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.12	< 0.058
p-Isopropyltoluene	NE	NE		< 0.34	< 0.85	NA	< 1.7	< 1.7	< 0.85	< 1.7	< 1.7	< 1.7	< 3.6	< 8.5	< 4.3	< 0.85	< 0.17	NA	< 0.34	< 0.17	< 0.17	< 0.34	< 0.34	< 0.17	< 0.36	< 0.17	< 0.085	
sec-Butylbenzene	NE	NE		< 0.3	< 0.75	NA	< 1.5	< 1.5	< 0.75	< 1.5	< 1.5	< 1.5	< 4.0	< 13	< 6.5	< 0.75	< 0.15	NA	< 0.3	< 0.15	< 0.15	< 0.30	< 0.30	< 0.15	< 0.40	< 0.26	< 0.13	
Styrene</																												

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-14 70 - 75 ft 01/21/2013	MP-14 70 - 75 ft 04/16/2013	MP-14 70 - 75 ft 07/16/2013	MP-14 70 - 75 ft 07/22/2013	MP-14 70 - 75 ft 10/08/2013	MP-14 70 - 75 ft 04/14/2014	MP-14 70 - 75 ft 10/17/2014	MP-14 100 - 105 ft 01/21/2013	MP-14 100 - 105 ft 04/16/2013	MP-14 100 - 105 ft 07/16/2013	MP-14 100 - 105 ft 07/22/2013	MP-14 100 - 105 ft 10/08/2013	MP-14 100 - 105 ft 04/14/2014	MP-14 100 - 105 ft 10/17/2014	MP-14 100 - 105 ft 04/13/2015	MP-14 100 - 105 ft 10/15/2015	MP-14 100 - 105 ft 10/11/2016	MP-14 100 - 105 ft 10/02/2017		
<b>VOCs</b>																						
1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 0.11	
1,1,1-Trichloroethane	40	200	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.38	< 0.10	< 0.1	
1,1,2-Trichloroethane	0.5	5	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 0.1	
1,1-Dichloroethane	0.7	7	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 0.14	
1,2,4-Trimethylbenzene	96	480	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 0.06	
1,2-Dibromoethane	0.005	0.05	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 0.13	
1,2-Dichlorobenzene	60	600	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	< 0.076	
1,2-Dichloropropane	0.5	5	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.43	< 0.10	< 0.1	
1,2,3-Trichlorobenzene	NE	NE	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.045	
1,2,4-Trichlorobenzene	14	70	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	< 0.077	
1,3,5-Trimethylbenzene	96	480	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 0.075	
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 3	
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 0.95	
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 0.77	
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	8.4 BJ	
Benzene	0.5	5	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.089	< 0.089	
Bromodichloromethane	0.06	0.6	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 0.077	
Bromoform	0.44	4.4	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.088	
Bromomethane	1	10	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31 *	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31 *	< 0.31	< 0.80	< 0.59	
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.053	< 0.053	
Carbon tetrachloride	0.5	5	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.038	
Chloroform	0.6	6	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.37	< 0.062	< 0.062	
Chloromethane	3	30	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	< 0.16	1.3 J	
cis-1,2-Dichloroethene	7	70	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.41	< 0.11	< 0.11	
Dichlorodifluoromethane	200	1000	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.2	< 0.2	0.72 J	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.54	< 0.11	< 0.11	
Ethylbenzene	140	700	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 0.054	
Isopropylbenzene	NE	NE	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.081	
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.057	< 0.057	
Methyl tert-butyl ether	12	60	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24 *	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24 *	< 0.39	< 0.14	< 0.14	
Methylene chloride	0.5	5	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 0.14	< 0.14	
Naphthalene	10	100	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 0.088	
n-Butylbenzene	NE	NE	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.14	
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	
n-Propylbenzene	NE	NE	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.1	
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.058	< 0.058	
p-Isopropyltoluene	NE	NE	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.085	
sec-Butylbenzene	NE	NE	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.13	
Styrene	10	100	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.39	< 0.065	0.07 BJ	
tert-Butylbenzene	NE	NE	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 0.12	
Tetrachloroethene	0.5	5	<b>0.71 J</b>	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	<b>1.5</b>	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	<b>1.7</b>	< 0.17	<b>1</b>	< 0.17	< 0.37	<b>0.54</b>	0.45 J-
Toluene	160	800	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	0.10 J	< 0.053	
trans-1,2-Dichloroethene	20	100	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	< 0.11	< 0.11	
Trichloroethene	0.5	5	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.19	< 0.16	< 0.062	< 0.062	
Vinyl chloride	0.02	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.16	< 0.16	
Xylenes, Total	400	2000	< 0.068	< 0.068	&lt																	

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-14 135 - 140 ft 01/21/2013	MP-14 135 - 140 ft 04/16/2013	MP-14 135 - 140 ft 07/16/2013	MP-14 135 - 140 ft 07/22/2013	MP-14 135 - 140 ft 10/08/2013	MP-14 135 - 140 ft 04/14/2014	MP-14 135 - 140 ft 10/17/2014	MP-14 135 - 140 ft 04/13/2015	MP-14 135 - 140 ft 10/15/2015	MP-14 135 - 140 ft 01/20/2016	MP-14 135 - 140 ft 04/19/2016	MP-14 135 - 140 ft 07/18/2016	MP-14 135 - 140 ft 10/11/2016	MP-14 135 - 140 ft 1/18/2017	MP-14 135 - 140 ft 04/10/2017	MP-14 135 - 140 ft 10/02/2017	
<b>VOCs</b>																				
1,1,1,2-Tetrachloroethane	7	70		< 0.25	< 0.25	< 0.5	< 0.25	< 0.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 1.1	< 2.2	< 0.11	< 1.1	< 1.1	< 0.11	< 1.1
1,1,1-Trichloroethane	40	200		< 0.2	< 0.2	< 0.4	< 0.2	< 0.4	< 0.20	< 0.20	< 0.20	< 0.20	< 0.38	< 1.0	< 2.0	< 0.10	< 1.0	< 1.0	< 0.10	< 1.0
1,1,2-Trichloroethane	0.5	5		< 0.28	< 0.28	< 0.56	< 0.28	< 0.56	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 1.0	< 2.0	< 0.10	< 1.0	< 1.0	< 0.10	< 1.0
1,1-Dichloroethane	0.7	7		< 0.31	< 0.31	< 0.62	< 0.31	< 0.62	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 1.4	< 2.8	< 0.14	< 1.4	< 1.4	< 0.14	< 1.4
1,2,4-Trimethylbenzene	96	480		< 0.14	< 0.14	< 0.28	< 0.14	< 0.28	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.60	< 1.2	< 0.060	< 0.60	< 0.60	< 0.060	< 0.60
1,2-Dibromoethane	0.005	0.05		< 0.36	< 0.36	< 0.72	< 0.36	< 0.72	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 1.3	< 2.6	< 0.13	< 1.3	< 1.3	< 0.13	< 1.3
1,2-Dichlorobenzene	60	600		< 0.27	< 0.27	< 0.54	< 0.27	< 0.54	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.76	< 1.5	< 0.076	< 0.76	< 0.76	< 0.076	< 0.76
1,2-Dichloropropane	0.5	5		< 0.2	< 0.2	< 0.4	< 0.2	< 0.4	< 0.20	< 0.20	< 0.20	< 0.20	< 0.43	< 1.0	< 2.0	< 0.10	< 1.0	< 1.0	< 0.10	< 1.0
1,2,3-Trichlorobenzene	NE	NE		< 0.24	< 0.24	< 0.48	< 0.24	< 0.48	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.45	3.4 BJ	< 0.045	< 0.45	< 0.45	< 0.045	< 0.45
1,2,4-Trichlorobenzene	14	70		< 0.31	< 0.31	< 0.62	< 0.31	< 0.62	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.77	2.4 J	< 0.077	< 0.77	< 0.77	< 0.077	< 0.77
1,3,5-Trimethylbenzene	96	480		< 0.18	< 0.18	< 0.36	< 0.18	< 0.36	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.75	< 1.5	< 0.075	< 0.75	< 0.75	< 0.075	< 0.75
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 30	< 60	< 30	< 30	< 30	< 30	< 30
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 9.5	< 19	< 9.5	< 9.5	< 9.5	< 9.5	< 9.5
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 7.7	< 15	< 7.7	< 7.7	< 7.7	< 7.7	< 7.7
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 34	< 68	< 34	< 34	< 34	< 34	< 34
Benzene	0.5	5		< 0.074	< 0.074	< 0.15	< 0.074	< 0.15	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.89	< 1.8	< 0.089	< 0.89	< 0.89	< 0.089	< 0.89
Bromodichloromethane	0.06	0.6		< 0.17	< 0.17	< 0.34	< 0.17	< 0.34	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.77	< 1.5	< 0.077	< 0.77	<b>0.80 BJ</b>	< 0.077	< 0.77
Bromoform	0.44	4.4		< 0.28	< 0.28	< 0.56	< 0.28	< 0.56	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.88	< 1.8	< 0.088	< 0.88	< 0.88	< 0.088	< 0.88
Bromomethane	1	10		< 0.31	< 0.31	< 0.62	< 0.31	< 0.62	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 5.9	< 12	< 0.59	< 5.9	< 5.9	< 0.59	< 5.9
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.53	< 1.1	< 0.053	3.3 J	< 0.53	< 0.53	< 0.53
Carbon tetrachloride	0.5	5		< 0.26	< 0.26	< 0.52	< 0.26	< 0.52	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.76	< 1.5	< 0.038	< 0.38	< 0.38	< 0.038	< 0.38
Chloroform	0.6	6		< 0.2	< 0.2	< 0.4	< 0.2	< 0.4	< 0.20	< 0.20	< 0.20	< 0.20	< 0.37	< 0.74	< 1.5	< 0.062	< 0.62	< 0.62	< 0.062	< 0.62
Chloromethane	3	30		< 0.18	< 0.18	< 0.36	< 0.18	< 0.36	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	< 0.64	< 1.3	< 0.16	0.16 J	12 BJ	< 1.6	< 1.6
cis-1,2-Dichloroethene	7	70		< 0.12	<b>17</b>	<b>27</b>	<b>29</b>	<b>27</b>	<b>12</b>	<b>8.1</b>	4.3	<b>13</b>	<b>16</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>12 B</b>	<b>11</b>	<b>12</b>	<b>11</b>
Dichlorodifluoromethane	200	1000		< 0.2	< 0.2	< 0.4	< 0.2	< 0.4	< 0.20	< 0.20	< 0.20	< 0.20	< 0.54	< 1.1	< 2.2	0.11 J	< 1.1	< 1.1	< 0.11	< 1.1
Ethylbenzene	140	700		< 0.13	< 0.13	< 0.26	< 0.13	< 0.26	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.54	< 1.1	< 0.054	< 0.54	< 0.54	< 0.054	< 0.54
Isopropylbenzene	NE	NE		< 0.14	< 0.14	< 0.28	< 0.14	< 0.28	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.81	< 1.6	< 0.081	< 0.81	< 0.81	< 0.081	< 0.81
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.57	< 1.1	< 0.057	< 0.57	< 0.57	< 0.057	< 0.57
Methyl tert-butyl ether	12	60		< 0.24	< 0.24	< 0.48	< 0.24	< 0.48	< 0.24	< 0.24	< 0.24	< 0.24	< 0.39	< 1.4	< 2.8	< 0.14	< 1.4	< 1.4	< 0.14	< 1.4
Methylene chloride	0.5	5		< 0.68	< 0.68	< 1.4	< 0.68	< 1.4	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 3.2	< 6.4	< 0.16	< 1.6	< 1.6	< 0.16	< 1.6
Naphthalene	10	100		< 0.16	< 0.16	< 0.32	< 0.16	< 0.32	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.88	6.8 BJ	< 0.088	< 0.88	< 0.88	< 0.088	< 0.88
n-Butylbenzene	NE	NE		< 0.13	< 0.13	< 0.26	< 0.13	< 0.26	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 1.4	< 2.8	< 0.14	< 1.4	< 1.4	< 0.14	< 1.4
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2.1	< 4.2	< 0.21	< 2.1	< 2.1	< 0.21	< 2.1
n-Propylbenzene	NE	NE		< 0.13	< 0.13	< 0.26	< 0.13	< 0.26	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 1.0	< 2.0	< 0.10	< 1.0	< 1.0	< 0.10	< 1.0
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.58	< 1.2	< 0.058	< 0.58	< 0.58	< 0.058	< 0.58
p-Isopropyltoluene	NE	NE		< 0.17	< 0.17	< 0.34	< 0.17	< 0.34	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.85	< 1.7	< 0.085	< 0.85	< 0.85	< 0.085	< 0.85
sec-Butylbenzene	NE	NE		< 0.15	< 0.15	< 0.3	< 0.15	< 0.3	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 1.3	< 2.6	< 0.13	< 1.3	< 1.3	< 0.13	< 1.3
Styrene	10	100		< 0.1	< 0.1	< 0.2	< 0.1	< 0.2	< 0.10	< 0.10	< 0.10	< 0.10	< 0.39	< 0.98	< 1.9	< 0.065	< 0.65	< 0.65	< 0.065	< 0.65
tert-Butylbenzene	NE	NE		< 0.14	< 0.14	< 0.28	< 0.14	< 0.28	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 1.2	< 2.4	< 0.12	< 1.2	< 1.2	< 0.12	< 1.2
Tetrachloroethene	0.5	5		<b>1.7</b>	<b>430</b>	<b>820</b>	<b>920</b>	<b>970</b>	<b>350</b>	<b>190</b>	<b>110</b>	<b>320</b>	<b>290</b>	<b>310</b>	<b>230</b>	<b>250</b>	<b>230</b>	<b>270</b>	<b>250</b>	<b>250</b>
Toluene	160	800		< 0.11	< 0.11	< 0.22	< 0.11	< 0.22	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	< 0.53	< 1.1	< 0.053	1.4 J	1.5 BJ	< 0.053	< 0.53
trans-1,2-Dichloroethene	20	100		< 0.25	< 0.25	< 0.5	< 0.25	< 0.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	< 1.1	< 2.2	0.24 J	< 1.1	< 1.1	0.18 J	< 1.1
Trichloroethene	0.5	5		0.24 J	<b>31</b>	<b>53</b>	<b>51</b>	<b>53</b>	<b>23</b>	<b>16</b>	<b>7.9</b>	<b>25</b>	<b>24</b>	<b>28</b>	<b>24</b>	<b>25</b>	<b>21</b>	<b>25</b>	<b>20</b>	<b>20</b>
Vinyl chloride	0.02	0.2		< 0.1	< 0.1	< 0.2	< 0.1	<b>0.53 J</b>	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 1.6	< 3.2	< 0.16	< 1.6	< 1.6	< 0.16	< 1.6
Xylenes, Total	400	2000		< 0.068	< 0.068	< 0.14	< 0.068	< 0.14	< 0.068	< 0.068	< 0.068	< 0.068	< 0.22	< 0.58	< 1.2	< 0.058	< 0.58	< 1.2	< 0.12	< 1.2
<b>Total PCBs</b>																				
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA												



Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	MP-14	MP-14	MP-14	MP-14	MP-14	MP-14	MP-14	MP-14	MP-14	MP-14	MP-14	MP-14	MP-14	MP-15	MP-15	MP-15	MP-15	MP-15	MP-15	MP-15	MP-15	MP-15		
SCREEN INTERVAL (feet bgs)	170 - 178 ft	170 - 178 ft	170 - 178 ft	170 - 178 ft	170 - 178 ft	170 - 178 ft	170 - 178 ft	170 - 178 ft	170 - 178 ft	170 - 178 ft	170 - 178 ft	170 - 178 ft	170 - 178 ft	88 - 92 ft	88 - 92 ft	88 - 92 ft	88 - 92 ft	88 - 92 ft	88 - 92 ft	88 - 92 ft	88 - 92 ft	88 - 92 ft		
SAMPLE DATE	01/21/2013	04/16/2013	07/16/2013	07/22/2013	10/08/2013	04/14/2014	10/17/2014	04/13/2015	10/15/2015	10/11/2016	10/02/2017			01/22/2013	04/15/2013	07/22/2013	10/08/2013	04/15/2014	10/16/2014	04/14/2015	10/15/2015	10/10/2016	10/03/2017	
PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD																							
<b>VOCS</b>																								
1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.25	< 0.5	< 0.25	< 0.5	< 0.50	< 0.50	< 0.25	< 0.46	< 0.22	< 2.2	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 1.1	< 0.55
1,1,1-Trichloroethane	40	200	< 0.2	< 0.2	< 0.4	< 0.2	< 0.4	< 0.40	< 0.40	< 0.20	< 0.38	< 0.20	< 2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.38	< 1.0	< 0.5
1,1,2-Trichloroethane	0.5	5	< 0.28	< 0.28	< 0.56	< 0.28	< 0.56	< 0.56	< 0.56	< 0.28	< 0.35	< 0.20	< 2	< 0.28	<b>2.2</b>	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 1.0	< 0.5
1,1-Dichloroethene	0.7	7	< 0.31	< 0.31	< 0.62	< 0.31	< 0.62	< 0.62	< 0.62	< 0.31	< 0.39	< 0.28	< 2.8	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 1.4	< 0.7
1,2,4-Trimethylbenzene	96	480	< 0.14	< 0.14	< 0.28	< 0.14	< 0.28	< 0.28	< 0.28	< 0.14	< 0.36	< 0.12	< 1.2	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.60	< 0.3
1,2-Dibromoethane	0.005	0.05	< 0.36	< 0.36	< 0.72	< 0.36	< 0.72	< 0.72	< 0.72	< 0.36	< 0.39	< 0.26	< 2.6	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 1.3	< 0.65
1,2-Dichlorobenzene	60	600	< 0.27	< 0.27	< 0.54	< 0.27	< 0.54	< 0.54	< 0.54	< 0.27	< 0.33	< 0.15	< 1.5	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.76	< 0.38
1,2-Dichloropropane	0.5	5	< 0.2	< 0.2	< 0.4	< 0.2	< 0.4	< 0.40	< 0.40	< 0.20	< 0.43	< 0.20	< 2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.43	< 1.0	< 0.5
1,2,3-Trichlorobenzene	NE	NE	< 0.24	< 0.24	< 0.48	< 0.24	< 0.48	< 0.48	< 0.48	< 0.24	< 0.46	< 0.090	< 0.9	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.45	< 0.23
1,2,4-Trichlorobenzene	14	70	< 0.31	< 0.31	< 0.62	< 0.31	< 0.62	< 0.62	< 0.62	< 0.31	< 0.34	< 0.15	< 1.5	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.46	< 0.77	< 0.39
1,3,5-Trimethylbenzene	96	480	< 0.18	< 0.18	< 0.36	< 0.18	< 0.36	< 0.36	< 0.36	< 0.18	< 0.25	< 0.15	< 1.5	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.75	< 0.38
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 30	< 15
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 9.5	< 4.8
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 7.7	< 3.9
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 6.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 34	26 BJ
Benzene	0.5	5	< 0.074	< 0.074	< 0.15	< 0.074	< 0.15	< 0.15	< 0.15	< 0.074	< 0.15	< 0.18	< 1.8	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.89	< 0.45
Bromodichloromethane	0.06	0.6	< 0.17	< 0.17	< 0.34	< 0.17	< 0.34	< 0.34	< 0.34	< 0.17	< 0.37	< 0.15	< 1.5	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.77	< 0.39
Bromoform	0.44	4.4	< 0.28	< 0.28	< 0.56	< 0.28	< 0.56	< 0.56	< 0.56	< 0.28	< 0.48	< 0.18	< 1.8	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.88	< 0.44
Bromomethane	1	10	< 0.31	< 0.31	< 0.62	< 0.31	< 0.62	< 0.62	< 0.62	< 0.31	< 0.80	< 1.2	< 1.2	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 5.9	< 3
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.1 J	< 0.27
Carbon tetrachloride	0.5	5	< 0.26	< 0.26	< 0.52	< 0.26	< 0.52	< 0.52	< 0.52	< 0.26	< 0.38	< 0.076	< 0.76	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.38	< 0.19
Chloroform	0.6	6	< 0.2	< 0.2	< 0.4	< 0.2	< 0.4	< 0.40	< 0.40	< 0.20	< 0.37	< 0.12	<b>1.2 J</b>	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.37	< 0.62	< 0.31
Chloromethane	3	30	< 0.18	< 0.18	< 0.36	< 0.18	< 0.36	< 0.36	< 0.36	< 0.18	< 0.32	0.92 BJ	<b>5.2 J+</b>	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	<b>11 BJ</b>	1.3 J+
cis-1,2-Dichloroethene	7	70	< 0.12	< 0.12	<b>22</b>	<b>21</b>	<b>19</b>	<b>24</b>	<b>22</b>	<b>30</b>	<b>22</b>	<b>30</b>	<b>22</b>	<b>7.5</b>	<b>23</b>	<b>14</b>	<b>30</b>	<b>20</b>	<b>32</b>	<b>23</b>	<b>17</b>	<b>15</b>	<b>25</b>	<b>17</b>
Dichlorodifluoromethane	200	1000	< 0.2	< 0.2	< 0.4	< 0.2	< 0.4	< 0.40	< 0.40	< 0.20	< 0.54	< 0.22	< 2.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.54	< 1.1	< 0.55
Ethylbenzene	140	700	< 0.13	< 0.13	< 0.26	< 0.13	< 0.26	< 0.26	< 0.26	< 0.13	< 0.18	< 0.11	< 1.1	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.54	< 0.27
Isopropylbenzene	NE	NE	< 0.14	< 0.14	< 0.28	< 0.14	< 0.28	< 0.28	< 0.28	< 0.14	< 0.39	< 0.16	< 1.6	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.81	< 0.41
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.2 BJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.57	0.3 BJ
Methyl tert-butyl ether	12	60	< 0.24	< 0.24	< 0.48	< 0.24	< 0.48	< 0.48	< 0.48	< 0.24	< 0.39	< 0.28	< 2.8	2.3	0.84 J	< 0.24	3.3	3.5	< 0.24	< 0.24	2.5	< 0.24	4.0 J	< 0.7
Methylene chloride	0.5	5	< 0.68	< 0.68	< 1.4	< 0.68	< 1.4	< 1.4	< 1.4	< 0.68	< 1.6	< 0.28	< 2.8	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 1.4	< 0.7
Naphthalene	10	100	< 0.16	< 0.16	< 0.32	< 0.16	< 0.32	< 0.32	< 0.32	< 0.16	< 0.34	< 0.18	< 1.8	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.88	< 0.44
n-Butylbenzene	NE	NE	< 0.13	< 0.13	< 0.26	< 0.13	< 0.26	< 0.26	< 0.26	< 0.13	< 0.39	< 0.28	< 2.8	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 1.4	< 0.7
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 4.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.0 J	< 1.1
n-Propylbenzene	NE	NE	< 0.13	< 0.13	< 0.26	< 0.13	< 0.26	< 0.26	< 0.26	< 0.13	< 0.41	< 0.20	< 2	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 1.0	< 0.5
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.58	< 0.29
p-Isopropyltoluene	NE	NE	< 0.17	< 0.17	< 0.34	< 0.17	< 0.34	< 0.34	< 0.34	< 0.17	< 0.36	< 0.17	< 1.7	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.85	< 0.43
sec-Butylbenzene	NE	NE	< 0.15	< 0.15	< 0.3	< 0.15	< 0.3	< 0.30	< 0.30	< 0.15	< 0.40	< 0.26	< 2.6	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 1.3	< 0.65
Styrene	10	100	< 0.1	< 0.1	< 0.2	< 0.1	< 0.2	< 0.20	< 0.20	< 0.10	< 0.39	< 0.13	1.6 BJ	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.39	< 0.65	0.35 BJ
tert-Butylbenzene	NE	NE	< 0.14	< 0																				

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-15 100 - 105 ft 01/22/2013	MP-15 100 - 105 ft 04/15/2013	MP-15 100 - 105 ft 07/22/2013	MP-15 100 - 105 ft 10/08/2013	MP-15 100 - 105 ft 04/15/2014	MP-15 100 - 105 ft 10/16/2014	MP-15 100 - 105 ft 04/14/2015	MP-15 100 - 105 ft 10/15/2015	MP-15 100 - 105 ft 10/10/2016	MP-15 100 - 105 ft 10/03/2017	MP-15 120 - 125 ft 01/22/2013	MP-15 120 - 125 ft 04/15/2013	MP-15 120 - 125 ft 07/22/2013	MP-15 120 - 125 ft 10/08/2013	MP-15 120 - 125 ft 04/15/2014	MP-15 120 - 125 ft 10/16/2014	MP-15 120 - 125 ft 04/14/2015	MP-15 120 - 125 ft 10/15/2015	MP-15 120 - 125 ft 10/10/2016	MP-15 120 - 125 ft 10/03/2017
<b>VOCs</b>																							
1,1,1,2-Tetrachloroethane	7	70		< 0.25	< 0.25	< 0.25	< 0.5	< 0.50	< 0.50	< 0.25	< 0.46	< 2.2	< 2.2	< 0.5	< 0.5	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.92	< 11	< 5.5
1,1,1-Trichloroethane	40	200		< 0.2	< 0.2	< 0.2	< 0.4	< 0.40	< 0.40	< 0.20	< 0.38	< 2.0	< 2	< 0.4	< 0.4	< 1	< 1	< 1.0	< 1.0	< 1.0	< 0.76	< 10	< 5
1,1,2-Trichloroethane	0.5	5		< 0.28	< 0.28	< 0.28	< 0.56	< 0.56	< 0.56	< 0.28	< 0.35	< 2.0	< 2	< 0.56	< 0.56	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.70	< 10	< 5
1,1-Dichloroethene	0.7	7		< 0.31	< 0.31	< 0.31	< 0.62	< 0.62	< 0.62	< 0.31	< 0.39	< 2.8	< 2.8	< 0.62	< 0.62	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 0.78	< 14	< 7
1,2,4-Trimethylbenzene	96	480		< 0.14	< 0.14	< 0.14	< 0.28	< 0.28	< 0.28	< 0.14	< 0.36	< 1.2	< 1.2	< 0.28	< 0.28	< 0.7	< 0.7	< 0.70	< 0.70	< 0.70	< 0.72	< 6.0	< 3
1,2-Dibromoethane	0.005	0.05		< 0.36	< 0.36	< 0.36	< 0.72	< 0.72	< 0.72	< 0.36	< 0.39	< 2.6	< 2.6	< 0.72	< 0.72	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 0.77	< 13	< 6.5
1,2-Dichlorobenzene	60	600		< 0.27	< 0.27	< 0.27	< 0.54	< 0.54	< 0.54	< 0.27	< 0.33	< 1.5	< 1.5	< 0.54	< 0.54	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.67	< 7.6	< 3.8
1,2-Dichloropropane	0.5	5		< 0.2	< 0.2	< 0.2	< 0.4	< 0.40	< 0.40	< 0.20	< 0.43	< 2.0	< 2	< 0.4	< 0.4	< 1	< 1	< 1.0	< 1.0	< 1.0	< 0.86	< 10	< 5
1,2,3-Trichlorobenzene	NE	NE		< 0.24	< 0.24	< 0.24	< 0.48	< 0.48	< 0.48	< 0.24	< 0.46	< 0.90	< 0.9	< 0.48	< 0.48	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.92	< 4.5	< 2.3
1,2,4-Trichlorobenzene	14	70		< 0.31	< 0.31	< 0.31	< 0.62	< 0.62	< 0.62	< 0.31	< 0.34	< 1.5	< 1.5	< 0.62	< 0.62	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 0.68	< 7.7	< 3.9
1,3,5-Trimethylbenzene	96	480		< 0.18	< 0.18	< 0.18	< 0.36	< 0.36	< 0.36	< 0.18	< 0.25	< 1.5	< 1.5	< 0.36	< 0.36	< 0.9	< 0.9	< 0.90	< 0.90	< 0.90	< 0.51	< 7.5	< 3.8
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	< 60	< 60	NA	NA	NA	NA	NA	NA	NA	NA	< 300	< 150
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	< 19	< 19	NA	NA	NA	NA	NA	NA	NA	NA	< 95	< 48
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	< 15	< 15	NA	NA	NA	NA	NA	NA	NA	NA	< 77	< 39
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	< 68	< 68	NA	NA	NA	NA	NA	NA	NA	NA	< 340	< 170
Benzene	0.5	5		< 0.074	< 0.074	< 0.074	< 0.15	< 0.15	< 0.15	< 0.074	< 0.15	< 1.8	< 1.8	< 0.074	< 0.15	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.29	< 8.9	< 4.5
Bromodichloromethane	0.06	0.6		< 0.17	< 0.17	< 0.17	< 0.34	< 0.34	< 0.34	< 0.17	< 0.37	< 1.5	< 1.5	< 0.34	< 0.34	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.74	< 7.7	< 3.9
Bromoforn	0.44	4.4		< 0.28	< 0.28	< 0.28	< 0.56	< 0.56	< 0.56	< 0.28	< 0.48	< 1.8	< 1.8	< 0.56	< 0.56	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.97	< 8.8	< 4.4
Bromomethane	1	10		< 0.31	< 0.31	< 0.31	< 0.62	< 0.62	< 0.62	< 0.31	< 0.80	< 12	< 12	< 0.62	< 0.62	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 59	< 30
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	5.6 J	< 1.1	< 1.1	NA	NA	NA	NA	NA	NA	NA	29 J	< 2.7	< 2.7
Carbon tetrachloride	0.5	5		< 0.26	< 0.26	< 0.26	< 0.52	< 0.52	< 0.52	< 0.26	< 0.38	< 0.76	< 0.76	< 0.52	< 0.52	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.77	< 3.8	< 1.9
Chloroform	0.6	6		< 0.2	< 0.2	< 0.2	< 0.4	< 0.40	< 0.40	< 0.20	< 0.37	< 1.2	< 1.2	< 0.4	< 0.4	< 1	< 1	< 1.0	< 1.0	< 1.0	< 0.74	< 6.2	< 3.1
Chloromethane	3	30		< 0.18	< 0.18	< 0.18	< 0.36	< 0.36	< 0.36	< 0.18	< 0.32	21 BJ	< 3.2	< 0.36	< 0.36	< 0.9	< 0.9	< 0.90	< 0.90	< 0.90	< 0.64	96 BJ	< 8
cis-1,2-Dichloroethene	7	70		93	37	68	76	96	83	66	77	61	79	200	230	250	220	230	260	200	200	200	140
Dichlorodifluoromethane	200	1000		< 0.2	< 0.2	< 0.2	< 0.4	< 0.40	< 0.40	< 0.20	< 0.54	< 2.2	< 2.2	< 0.4	< 0.4	< 1	< 1	< 1.0	< 1.0	< 1.0	< 1.1	< 11	< 5.5
Ethylbenzene	140	700		< 0.13	< 0.13	< 0.13	< 0.26	< 0.26	< 0.26	< 0.13	< 0.18	< 1.1	< 1.1	< 0.26	< 0.26	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.37	< 5.4	< 2.7
Isopropylbenzene	NE	NE		< 0.14	< 0.14	< 0.14	< 0.28	< 0.28	< 0.28	< 0.14	< 0.39	< 1.6	< 1.6	< 0.28	< 0.28	< 0.7	< 0.7	< 0.70	< 0.70	< 0.70	< 0.77	< 8.1	< 4.1
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	< 1.1	< 1.1	NA	NA	NA	NA	NA	NA	NA	NA	< 5.7	< 2.9
Methyl tert-butyl ether	12	60		2.2	1.3	< 0.24	< 0.48	< 0.48	< 0.48	< 0.24	< 0.39	< 2.8	< 2.8	< 0.48	< 0.48	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.79	< 14	< 7
Methylene chloride	0.5	5		< 0.68	< 0.68	< 0.68	< 1.4	< 1.4	< 1.4	< 0.68	< 1.6	< 2.8	< 2.8	< 1.4	< 1.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 3.3	< 14	< 7
Naphthalene	10	100		< 0.16	< 0.16	< 0.16	< 0.32	< 0.32	< 0.32	< 0.16	< 0.34	< 1.8	< 1.8	< 0.32	< 0.32	< 0.8	< 0.8	< 0.80	< 0.80	< 0.80	< 0.67	< 8.8	< 4.4
n-Butylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.26	< 0.26	< 0.26	< 0.13	< 0.39	< 2.8	< 2.8	< 0.26	< 0.26	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.78	< 14	< 7
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	6.2 J	< 4.2	< 4.2	NA	NA	NA	NA	NA	NA	NA	NA	< 21	< 11
n-Propylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.26	< 0.26	< 0.26	< 0.13	< 0.41	< 2.0	< 2	< 0.26	< 0.26	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.83	< 10	< 5
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	< 1.2	< 1.2	NA	NA	NA	NA	NA	NA	NA	NA	< 5.8	< 2.9
p-Isopropyltoluene	NE	NE		< 0.17	< 0.17	< 0.17	< 0.34	< 0.34	< 0.34	< 0.17	< 0.36	< 1.7	< 1.7	< 0.34	< 0.34	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.72	< 8.5	< 4.3
sec-Butylbenzene	NE	NE		< 0.15	< 0.15	< 0.15	< 0.3	< 0.30	< 0.30	< 0.15	< 0.40	< 2.6	< 2.6	< 0.3	< 0.3	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.80	< 13	< 6.5
Styrene	10	100		< 0.1	< 0.1	< 0.1	< 0.2	< 0.20	< 0.20	< 0.10	< 0.39	< 1.3	1.6 BJ	< 0.2	< 0.2	< 0.5	< 0.5	< 0.50	< 0.50	< 0.50	< 0.77	< 6.5	4 BJ
tert-Butylbenzene	NE	NE		< 0.14	< 0.14	< 0.14	< 0.28	< 0.28	< 0.28	< 0.14	< 0.40	< 2.4	< 2.4	< 0.28	< 0.28	< 0.7	< 0.7	< 0.70	< 0.70	< 0.70	< 0.80	< 12	< 6
Tetrachloroethene	0.5	5		230	440	660	690	890	930	790	850	910	820	1100	1900	2100	1800	2000	2300	1700	2200	2900	2300
Toluene	160	800		< 0.11	< 0.11	< 0.11	< 0.22	< 0.22	< 0.22	< 0.11	< 0.15	2.8 J	< 1.1	< 0.22	< 0.22	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.30	12 J	< 2.7
trans-1,2-Dichloroethene	20	100		< 0.25	< 0.25	0.51 J	< 0.5	1.2 J	< 0.50	< 0.25	0.54 J	< 2.2	< 2.2	1.3 J	1.7 J	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	1.6 J	< 11	< 5.5
Trichloroethene	0.5	5		16	41	65	72	92	93	74	83	81	85	160	210	220	190	210	280	190	220	250	190
Vinyl chloride	0.02	0.2		< 0.1	< 0.1	< 0.1</																	

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-15 142 - 146 ft 01/22/2013	MP-15 142 - 146 ft 04/15/2013	MP-15 142 - 146 ft 07/22/2013	MP-15 142 - 146 ft 10/08/2013	MP-15 142 - 146 ft 04/15/2014	MP-15 142 - 146 ft 10/16/2014	MP-15 142 - 146 ft 04/14/2015	MP-15 142 - 146 ft 10/15/2015	MP-15 142 - 146 ft 10/10/2016	MP-15 142 - 146 ft 10/03/2017	MP-15 177 - 187 ft 01/22/2013	MP-15 177 - 187 ft 04/15/2013	MP-15 177 - 187 ft 07/22/2013	MP-15 177 - 187 ft 10/08/2013	MP-15 177 - 187 ft 04/15/2014	MP-15 177 - 187 ft 10/16/2014	MP-15 177 - 187 ft 04/14/2015	MP-15 177 - 187 ft 10/15/2015	MP-15 177 - 187 ft 10/10/2016	MP-15 177 - 187 ft 10/03/2017			
<b>VOCs</b>																										
1,1,1,2-Tetrachloroethane	7	70		< 0.25	< 0.25	< 0.25	< 0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.92	< 4.4	< 5.5	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 0.11
1,1,1-Trichloroethane	40	200		< 0.2	< 0.2	< 0.2	< 0.4	< 0.40	< 0.40	< 0.40	< 0.40	< 0.76	< 4.0	< 5	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.38	< 0.10	< 0.1
1,1,2-Trichloroethane	0.5	5		< 0.28	< 0.28	< 0.28	< 0.56	< 0.56	< 0.56	< 0.56	< 0.56	< 0.70	< 4.0	< 5	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 0.1
1,1-Dichloroethane	0.7	7		< 0.31	< 0.31	< 0.31	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.78	< 5.6	< 7	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 0.14
1,2,4-Trimethylbenzene	96	480		< 0.14	< 0.14	< 0.14	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.72	< 2.4	< 3	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 0.06
1,2-Dibromoethane	0.005	0.05		< 0.36	< 0.36	< 0.36	< 0.72	< 0.72	< 0.72	< 0.72	< 0.72	< 0.77	< 5.2	< 6.5	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 0.13
1,2-Dichlorobenzene	60	600		< 0.27	< 0.27	< 0.27	< 0.54	< 0.54	< 0.54	< 0.54	< 0.54	< 0.67	< 3.0	< 3.8	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	< 0.076
1,2-Dichloropropane	0.5	5		< 0.2	< 0.2	< 0.2	< 0.4	< 0.40	< 0.40	< 0.40	< 0.40	< 0.86	< 4.0	< 5	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.43	< 0.10	< 0.1
1,2,3-Trichlorobenzene	NE	NE		< 0.24	< 0.24	< 0.24	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.92	< 1.8	< 2.3	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.045
1,2,4-Trichlorobenzene	14	70		< 0.31	< 0.31	< 0.31	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 0.68	< 3.1	< 3.9	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	< 0.077
1,3,5-Trimethylbenzene	96	480		< 0.18	< 0.18	< 0.18	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.51	< 3.0	< 3.8	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 0.075
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 120	< 150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 3
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 38	< 48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 0.95
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 31	< 39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 0.77
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 140	230 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	< 3.4
Benzene	0.5	5		< 0.074	< 0.074	< 0.074	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.29	< 3.6	< 4.5	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	0.23 J	< 0.074	< 0.15	< 0.089	< 0.089	
Bromodichloromethane	0.06	0.6		< 0.17	< 0.17	< 0.17	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.74	< 3.1	< 3.9	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 0.077
Bromoform	0.44	4.4		< 0.28	< 0.28	< 0.28	< 0.56	< 0.56	< 0.56	< 0.56	< 0.56	< 0.97	< 3.5	< 4.4	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.088
Bromomethane	1	10		< 0.31	< 0.31	< 0.31	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62	< 1.6	< 24	< 30	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 0.59	< 0.59
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	10 J	< 2.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.053	< 0.053
Carbon tetrachloride	0.5	5		< 0.26	< 0.26	< 0.26	< 0.52	< 0.52	< 0.52	< 0.52	< 0.52	< 0.77	< 1.5	< 1.9	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.038
Chloroform	0.6	6		< 0.2	< 0.2	< 0.2	< 0.4	< 0.40	< 0.40	< 0.40	< 0.40	< 0.74	< 2.5	< 3.1	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.37	< 0.062	< 0.062
Chloromethane	3	30		< 0.18	< 0.18	< 0.18	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.64	< 35 BJ	< 9.5 J+	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	< 0.16	0.37 J+
cis-1,2-Dichloroethene	7	70		<b>9.7</b>	<b>75</b>	<b>110</b>	<b>140</b>	<b>140</b>	<b>150</b>	<b>140</b>	<b>150</b>	<b>180</b>	<b>180</b>	<b>180</b>	<b>9.5</b>	<b>6.7</b>	<b>6.0</b>	<b>16</b>	<b>17</b>	<b>31</b>	<b>33</b>	<b>5.2</b>	<b>0.60</b>	<b>0.48 J</b>	<b>0.60</b>	<b>0.48 J</b>
Dichlorodifluoromethane	200	1000		< 0.2	< 0.2	< 0.2	< 0.4	< 0.40	< 0.40	< 0.40	< 0.40	< 1.1	< 4.4	< 5.5	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.54	< 0.11	< 0.11
Ethylbenzene	140	700		< 0.13	< 0.13	< 0.13	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.37	< 2.2	< 2.7	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 0.054
Isopropylbenzene	NE	NE		< 0.14	< 0.14	< 0.14	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.77	< 3.2	< 4.1	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.081
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2.3	3 BJ	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.057	< 0.057
Methyl tert-butyl ether	12	60		2.0	< 0.24	< 0.24	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.79	< 5.6	< 7	2.5	1.6	0.86 J	0.90 J	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.39	< 0.14	< 0.14
Methylene chloride	0.5	5		< 0.68	< 0.68	< 0.68	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 3.3	< 5.6	< 7	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 0.14	< 0.14
Naphthalene	10	100		< 0.16	< 0.16	< 0.16	< 0.32	< 0.32	< 0.32	< 0.32	< 0.32	< 0.67	< 3.5	< 4.4	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 0.088
n-Butylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.78	< 5.6	< 7	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.14
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	15 J	< 11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21
n-Propylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.83	< 4.0	< 5	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.1
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 2.3	< 2.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.058	< 0.058
p-Isopropyltoluene	NE	NE		< 0.17	< 0.17	< 0.17	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.72	< 3.4	< 4.3	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.085
sec-Butylbenzene	NE	NE		< 0.15	< 0.15	< 0.15	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.80	< 5.2	< 6.5	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.13
Styrene	10																									



Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-16 140 - 144 ft 01/22/2013	MP-16 140 - 144 ft 04/16/2013	MP-16 140 - 144 ft 07/23/2013	MP-16 140 - 144 ft 10/09/2013	MP-16 140 - 144 ft 04/15/2014	MP-16 140 - 144 ft 10/16/2014	MP-16 140 - 144 ft 04/13/2015	MP-16 140 - 144 ft 10/15/2015	MP-16 140 - 144 ft 01/20/2016	MP-16 140 - 144 ft 04/19/2016	MP-16 140 - 144 ft 07/18/2016	MP-16 140 - 144 ft 10/11/2016	MP-16 140 - 144 ft 1/18/2017	MP-16 140 - 144 ft 04/10/2017	MP-16 140 - 144 ft 10/02/2017
<b>VOCs</b>																		
1,1,1,2-Tetrachloroethane	7	70		< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 0.22	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
1,1,1-Trichloroethane	40	200		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.38	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1,2-Trichloroethane	0.5	5		< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,1-Dichloroethene	0.7	7		< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 0.28	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
1,2,4-Trimethylbenzene	96	480		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 0.12	< 0.060	< 0.060	< 0.060	< 0.060	< 0.060
1,2-Dibromoethane	0.005	0.05		< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 0.26	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
1,2-Dichlorobenzene	60	600		< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	< 0.15	< 0.076	< 0.076	< 0.076	< 0.076	< 0.076
1,2-Dichloropropane	0.5	5		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.43	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
1,2,3-Trichlorobenzene	NE	NE		< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.090	< 0.045	< 0.045	< 0.045	< 0.045	< 0.045
1,2,4-Trichlorobenzene	14	70		< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	< 0.15	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077
1,3,5-Trimethylbenzene	96	480		< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 0.15	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 6.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	2.2 J	< 1.9	< 0.95	< 0.95	< 0.95	< 0.95	< 0.95
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 1.5	< 0.77	< 0.77	< 0.77	< 0.77	< 0.77
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	< 6.8	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4
Benzene	0.5	5		< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.089	< 0.18	< 0.089	< 0.089	< 0.089	< 0.089	< 0.089
Bromodichloromethane	0.06	0.6		< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 0.15	< 0.077	< 0.077	< 0.077	< 0.077	< 0.077
Bromoform	0.44	4.4		< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.18	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
Bromomethane	1	10		< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 0.59	< 1.2	< 0.59	< 0.59	< 0.59	< 0.59	< 0.59
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	< 0.053	< 0.11	< 0.053	< 0.053	< 0.053	< 0.053	< 0.053
Carbon tetrachloride	0.5	5		< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.076	< 0.038	< 0.038	< 0.038	< 0.038	< 0.038
Chloroform	0.6	6		< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.37	< 0.062	< 0.12	< 0.062	< 0.062	< 0.062	< 0.062	< 0.062
Chloromethane	3	30		< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	< 0.16	< 0.32	< 0.16	0.60 BJ	0.55 BJ	< 0.16	0.4 J
cis-1,2-Dichloroethene	7	70		1.9	1.2	< 0.12	< 0.12	1.4	1.4	1.2	1.2	1.4	1.4	1.7	1.5 B	1.5	1.8	1.5
Dichlorodifluoromethane	200	1000		< 0.2	< 0.2	< 0.2 *	< 0.2	< 0.20	< 0.20	< 0.20	< 0.54	< 0.11	< 0.22	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Ethylbenzene	140	700		< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 0.11	< 0.054	< 0.054	< 0.054	< 0.054	< 0.054
Isopropylbenzene	NE	NE		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.16	< 0.081	< 0.081	< 0.081	< 0.081	< 0.081
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	< 0.057	< 0.11	< 0.057	< 0.057	< 0.057	< 0.057	< 0.057
Methyl tert-butyl ether	12	60		< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.39	< 0.14	< 0.28	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
Methylene chloride	0.5	5		< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	0.35 J	< 0.28	< 0.14	< 0.14	0.27 BJ	< 0.14	< 0.14
Naphthalene	10	100		< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 0.18	< 0.088	< 0.088	< 0.088	< 0.088	< 0.088
n-Butylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.28	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.42	< 0.21	< 0.21	< 0.21	< 0.21	< 0.21
n-Propylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.20	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	< 0.058	< 0.12	< 0.058	< 0.058	< 0.058	< 0.058	< 0.058
p-Isopropyltoluene	NE	NE		< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.17	< 0.085	< 0.085	< 0.085	< 0.085	< 0.085
sec-Butylbenzene	NE	NE		< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.26	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
Styrene	10	100		< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.39	< 0.065	< 0.13	< 0.065	< 0.065	< 0.065	< 0.065	< 0.065
tert-Butylbenzene	NE	NE		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 0.24	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12
Tetrachloroethene	0.5	5		<b>14</b>	<b>11</b>	<b>23</b>	<b>37</b>	<b>38</b>	<b>35</b>	<b>27</b>	<b>33</b>	<b>30</b>	<b>28</b>	<b>35</b>	<b>29</b>	<b>26</b>	<b>37</b>	<b>30</b>
Toluene	160	800		< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	< 0.053	< 0.11	< 0.053	< 0.053	0.14 BJ	< 0.053	< 0.053
trans-1,2-Dichloroethene	20	100		< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	< 0.11	< 0.22	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
Trichloroethene	0.5	5		<b>2.1</b>	<b>2</b>	<b>3</b>	<b>6.1</b>	<b>6.1</b>	<b>6.9</b>	<b>5.3</b>	<b>5.7</b>	<b>5.1</b>	<b>5</b>	<b>5.9</b>	<b>6.1</b>	<b>5.2</b>	<b>6.4</b>	<b>6.3</b>
Vinyl chloride	0.02	0.2		< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.20	< 0.16	< 0.32	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16
Xylenes, Total	400	2000		< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.22	< 0.058	< 0.12	< 0.058	< 0.058	< 0.12	< 0.12	< 0.12
<b>Total PCBs</b>																		
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>																		
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA										

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MP-16 175 - 179 ft 01/22/2013	MP-16 175 - 179 ft 04/16/2013	MP-16 175 - 179 ft 07/23/2013	MP-16 175 - 179 ft 10/09/2013	MP-16 175 - 179 ft 04/15/2014	MP-16 175 - 179 ft 10/16/2014	MP-16 175 - 179 ft 04/13/2015	MP-16 175 - 179 ft 10/15/2015	MP-16 175 - 179 ft 10/11/2016	MP-16 175 - 179 ft 10/02/2017
<b>VOCs</b>												
1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 0.11
1,1,1-Trichloroethane	40	200	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.38	< 0.10	< 0.1
1,1,2-Trichloroethane	0.5	5	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 0.1
1,1-Dichloroethane	0.7	7	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 0.14
1,2,4-Trimethylbenzene	96	480	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 0.06
1,2-Dibromoethane	0.005	0.05	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 0.13
1,2-Dichlorobenzene	60	600	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	< 0.076
1,2-Dichloropropane	0.5	5	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.43	< 0.10	< 0.1
1,2,3-Trichlorobenzene	NE	NE	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.045
1,2,4-Trichlorobenzene	14	70	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	< 0.077
1,3,5-Trimethylbenzene	96	480	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 0.075
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 3
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 0.95
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 0.77
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	< 3.4
Benzene	0.5	5	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.089	< 0.089
Bromodichloromethane	0.06	0.6	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 0.077
Bromoform	0.44	4.4	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.088
Bromomethane	1	10	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 0.59	< 0.59
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	< 0.053	< 0.053
Carbon tetrachloride	0.5	5	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.038
Chloroform	0.6	6	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.37	< 0.062	< 0.062
Chloromethane	3	30	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	< 0.16	0.81 J
cis-1,2-Dichloroethene	7	70	1.9	0.99 J	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.41	< 0.11	< 0.11
Dichlorodifluoromethane	200	1000	< 0.2	< 0.2	< 0.2 *	< 0.2	< 0.20	< 0.20	< 0.20	< 0.54	< 0.11	< 0.11
Ethylbenzene	140	700	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 0.054
Isopropylbenzene	NE	NE	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.081
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	< 0.057	< 0.057
Methyl tert-butyl ether	12	60	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.39	< 0.14	< 0.14
Methylene chloride	0.5	5	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 0.14	0.16 J
Naphthalene	10	100	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 0.088
n-Butylbenzene	NE	NE	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.14
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21
n-Propylbenzene	NE	NE	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.1
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	< 0.058	< 0.058
p-Isopropyltoluene	NE	NE	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.085
sec-Butylbenzene	NE	NE	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.13
Styrene	10	100	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.39	< 0.065	0.07 BJ
tert-Butylbenzene	NE	NE	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 0.12
Tetrachloroethene	0.5	5	<b>1.3</b>	<b>6.7</b>	<b>2.2</b>	<b>3.7</b>	<b>3.8</b>	<b>4.8</b>	<b>4.2</b>	<b>2.7</b>	<b>3.1</b>	<b>4.2</b>
Toluene	160	800	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	0.080 J	< 0.053
trans-1,2-Dichloroethene	20	100	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	< 0.11	< 0.11
Trichloroethene	0.5	5	<b>2.2</b>	<b>1.2</b>	0.42 J	<b>0.98</b>	<b>0.87</b>	<b>0.98</b>	<b>0.69</b>	0.42 J	<b>0.54</b>	<b>0.64</b>
Vinyl chloride	0.02	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.20	< 0.16	< 0.16
Xylenes, Total	400	2000	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.22	< 0.058	< 0.12
<b>Total PCBs</b>												
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>												
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>												
Total Dissolved Solids	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes on Page 55.

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-17 160 - 170 ft 01/17/2013	MW-17 160 - 170 ft 04/20/2013	MW-17 160 - 170 ft 07/18/2013	MW-17 160 - 170 ft 10/08/2013	MW-17 160 - 170 ft 04/22/2014	MW-17 160 - 170 ft 10/22/2014	MW-17 160 - 170 ft 04/15/2015	MW-17 160 - 170 ft 10/22/2015	MW-17 160 - 170 ft 01/22/2016	MW-17 160 - 170 ft 04/20/2016	MW-17 160 - 170 ft 07/19/2016	MW-17 160 - 170 ft 10/12/2016	MW-17 160 - 170 ft 1/20/2017	MW-17 160 - 170 ft 04/12/2017	MW-17 160 - 170 ft 10/09/2017
<b>VOCs</b>																		
1,1,1,2-Tetrachloroethane	7	70		< 0.5	< 0.5	< 0.25	< 0.5	< 0.50	< 0.50	< 1.3	< 0.92	< 5.5	< 11	< 2.8	< 2.2	< 5.5	< 5.5	< 2.8
1,1,1-Trichloroethane	40	200		< 0.4	< 0.4	< 0.2	< 0.4	< 0.40	< 0.40	< 1.0	< 0.76	< 5.0	< 10	< 2.5	< 2.0	< 5.0	< 5.0	< 2.5
1,1,2-Trichloroethane	0.5	5		< 0.56	<b>11</b>	< 0.28	< 0.56	< 0.56	< 0.56	< 1.4	< 0.70	< 5.0	< 10	< 2.5	< 2.0	< 5.0	< 5.0	< 2.5
1,1-Dichloroethane	0.7	7		< 0.62	< 0.62	< 0.31	< 0.62	< 0.62	< 0.62	< 1.6	< 0.78	< 7.0	< 14	< 3.5	< 2.8	< 7.0	< 7.0	< 3.5
1,2,4-Trimethylbenzene	96	480		< 0.28	< 0.28	< 0.14	< 0.28	< 0.28	< 0.28	< 0.70	< 0.72	< 3.0	< 6.0	< 1.5	< 1.2	< 3.0	< 3.0	< 1.5
1,2-Dibromoethane	0.005	0.05		< 0.72	< 0.72	< 0.36	< 0.72	< 0.72	< 0.72	< 1.8	< 0.77	< 6.5	< 13	< 3.3	< 2.6	< 6.5	< 6.5	< 3.3
1,2-Dichlorobenzene	60	600		< 0.54	< 0.54	< 0.27	< 0.54	< 0.54	< 0.54	< 1.4	< 0.67	< 3.8	< 7.6	< 1.9	< 1.5	< 3.8	< 3.8	< 1.9
1,2-Dichloropropane	0.5	5		< 0.4	< 0.4	< 0.2	< 0.4	< 0.40	< 0.40	< 1.0	< 0.86	< 5.0	< 10	< 2.5	< 2.0	< 5.0	< 5.0	< 2.5
1,2,3-Trichlorobenzene	NE	NE		< 0.48	< 0.48	< 0.24	< 0.48	< 0.48	< 0.48	< 1.2	< 0.92	< 2.3	< 4.5	< 1.1	< 0.90	< 2.3	< 2.3	< 1.1
1,2,4-Trichlorobenzene	14	70		< 0.62	< 0.62	< 0.31	< 0.62	< 0.62	< 0.62	< 1.6	< 0.68	< 3.9	< 7.7	< 1.9	< 1.5	< 3.9	< 3.9	< 1.9
1,3,5-Trimethylbenzene	96	480		< 0.36	< 0.36	< 0.18	< 0.36	< 0.36	< 0.36	< 0.90	< 0.51	< 3.8	< 7.5	< 1.9	< 1.5	< 3.8	< 3.8	< 1.9
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	< 150	< 300	< 75	< 60	< 150	< 150	< 75
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	< 48	< 95	< 24	< 19	< 48	< 48	< 24
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	< 39	< 77	< 19	< 15	< 39	< 39	< 19
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	< 170	< 340	< 85	< 68	< 170	< 170	< 85
Benzene	0.5	5		<b>20</b>	<b>1.2</b>	< 0.074	< 0.15	< 0.15	< 0.15	< 0.37	< 0.29	< 4.5	< 8.9	< 2.2	< 1.8	< 4.5	< 4.5	< 2.2
Bromodichloromethane	0.06	0.6		< 0.34	< 0.34	< 0.17	< 0.34	< 0.34	< 0.34	< 0.85	< 0.74	< 3.9	< 7.7	< 1.9	< 1.5	< 3.9	< 3.9	< 1.9
Bromoform	0.44	4.4		< 0.56	< 0.56	< 0.28	< 0.56	< 0.56	< 0.56	< 1.4	< 0.97	< 4.4	< 8.8	< 2.2	< 1.8	< 4.4	< 4.4	< 2.2
Bromomethane	1	10		< 0.62	< 0.62	< 0.31	< 0.62	< 0.62	< 0.62	< 1.6	< 1.6	< 30	< 59	< 15	< 12	< 30	< 30	< 15
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	< 2.7	< 5.3	< 1.3	< 1.1	< 2.7	18 J	< 1.3
Carbon tetrachloride	0.5	5		<b>1.2 J</b>	< 0.52	< 0.26	< 0.52	< 0.52	< 0.52	< 1.3	< 0.77	< 1.9	< 3.8	< 0.95	< 0.76	< 1.9	< 1.9	< 0.95
Chloroform	0.6	6		<b>1.8 J</b>	< 0.4	<b>0.86 J</b>	< 0.4	<b>1.1 J</b>	<b>1.5 J</b>	< 1.0	<b>2.8</b>	<b>3.5 J</b>	<b>14 BJ</b>	<b>3.5 J</b>	<b>4.2 J</b>	<b>6.5 BJ</b>	<b>13 J</b>	<b>4.5 J</b>
Chloromethane	3	30		< 0.36	< 0.36	< 0.18	< 0.36	< 0.36	< 0.36	< 0.90	< 0.84	< 8.0	< 16	< 4.0	<b>15 BJ</b>	< 8.0	<b>22 J+</b>	<b>9.3 J</b>
cis-1,2-Dichloroethene	7	70		3.5	1.7 J	1.6	< 0.24	2.7	3.4	5.3	<b>7.5 J</b>	< 11	<b>8.8 J</b>	4.8 J	< 5.5	< 5.5	5.3 J	5.3 J
Dichlorodifluoromethane	200	1000		< 0.4	< 0.4	< 0.2	< 0.4	< 0.40	< 0.40	< 1.0	< 1.1	< 5.5	< 11	3.0 J	< 2.2	< 5.5	< 5.5	< 2.8
Ethylbenzene	140	700		< 0.26	< 0.26	< 0.13	< 0.26	< 0.26	< 0.26	< 0.65	< 0.37	< 2.7	< 5.4	< 1.4	< 1.1	< 2.7	< 2.7	< 1.4
Isopropylbenzene	NE	NE		< 0.28	< 0.28	< 0.14	< 0.28	< 0.28	< 0.28	< 0.70	< 0.77	< 4.1	< 8.1	< 2.0	< 1.6	< 4.1	< 4.1	< 2
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	< 2.9	< 5.7	< 1.4	< 1.1	< 2.9	< 2.9	< 1.4
Methyl tert-butyl ether	12	60		< 0.48	< 0.48	< 0.24	< 0.48	< 0.48	< 0.48	< 1.2	< 0.79	< 2.0	< 14	< 3.5	< 2.8	< 7.0	< 7.0	< 3.5
Methylene chloride	0.5	5		< 1.4	< 1.4	< 0.68	< 1.4	< 1.4	< 1.4	< 3.4	< 3.3	< 7.0	< 14	<b>6.5 BJ</b>	< 2.8	< 7.0	< 7.0	< 3.5
Naphthalene	10	100		< 0.32	< 0.32	< 0.16	< 0.32	< 0.32	< 0.32	< 0.80	< 0.67	< 4.4	< 8.8	< 2.2	< 1.8	< 4.4	< 4.4	2.8 BJ
n-Butylbenzene	NE	NE		< 0.26	< 0.26	< 0.13	< 0.26	< 0.26	< 0.26	< 0.65	< 0.78	< 7.0	< 14	< 3.5	< 2.8	< 7.0	< 7.0	< 3.5
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	< 11	< 21	< 5.3	< 4.2	< 11	< 11	< 5.3
n-Propylbenzene	NE	NE		< 0.26	< 0.26	< 0.13	< 0.26	< 0.26	< 0.26	< 0.65	< 0.83	< 5.0	< 10	< 2.5	< 2.0	< 5.0	< 5.0	< 2.5
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	< 2.9	< 5.8	< 1.5	< 1.2	< 2.9	< 2.9	< 1.5
p-Isopropyltoluene	NE	NE		< 0.34	< 0.34	< 0.17	< 0.34	< 0.34	< 0.34	< 0.85	< 0.72	< 4.3	< 8.5	< 2.1	< 1.7	< 4.3	< 4.3	< 2.1
sec-Butylbenzene	NE	NE		< 0.3	< 0.3	< 0.15	< 0.3	< 0.30	< 0.30	< 0.75	< 0.80	< 6.5	< 13	< 3.3	< 2.6	< 6.5	< 6.5	< 3.3
Styrene	10	100		< 0.2	< 0.2	< 0.1	< 0.2	< 0.20	< 0.20	< 0.50	< 0.77	< 3.3	< 6.5	< 1.6	< 1.3	< 3.3	< 3.3	1.8 J
tert-Butylbenzene	NE	NE		< 0.28	< 0.28	< 0.14	< 0.28	< 0.28	< 0.28	< 0.70	< 0.80	< 6.0	< 12	< 3.0	< 2.4	< 6.0	< 6.0	< 3
Tetrachloroethene	0.5	5		<b>1300</b>	<b>790</b>	<b>470</b>	<b>800</b>	<b>970</b>	<b>920</b>	<b>980</b>	<b>860</b>	<b>1200</b>	<b>1100</b>	<b>950</b>	<b>970</b>	<b>1000</b>	<b>680</b>	<b>790 B</b>
Toluene	160	800		1.8	< 0.22	0.69	< 0.22	< 0.22	< 0.22	< 0.55	< 0.30	< 2.7	< 5.3	< 1.3	< 1.1	7.0 BJ	6.5 J	< 1.3
trans-1,2-Dichloroethene	20	100		1.5 J	< 0.5	0.68 J	< 0.5	< 0.50	< 0.50	< 1.3	1.0 J	< 5.5	< 11	< 2.8	< 2.2	< 5.5	< 5.5	< 2.8
Trichloroethene	0.5	5		<b>86</b>	<b>46</b>	<b>33</b>	<b>49</b>	<b>51</b>	<b>55</b>	<b>67</b>	<b>63</b>	<b>80</b>	<b>69</b>	<b>66</b>	<b>68</b>	<b>59 B</b>	<b>52</b>	<b>59</b>
Vinyl chloride	0.02	0.2		< 0.2	< 0.2	< 0.1	< 0.2	< 0.20	< 0.20	< 0.50	< 0.41	< 8.0	< 16	< 4.0	< 3.2	< 8.0	< 8.0	< 4
Xylenes, Total	400	2000		3.1	< 0.14	0.56 J	< 0.14	< 0.14	< 0.14	< 0.34	< 0.44	< 2.9	< 5.8	< 1.5	< 1.2	< 5.8	< 5.8	< 2.9
<b>Total PCBs</b>																		
Aroclor-1016	0.003	0.03		< 0.17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		< 0.093	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		< 0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		< 0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>																		
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>																		
Total Dissolved Solids	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-18S 20 - 30 ft 11/28/2012	MW-18S 20 - 30 ft 12/18/2012	MW-18S 20 - 30 ft 12/19/2012	MW-18S 20 - 30 ft 12/28/2012	MW-18S 20 - 30 ft 01/03/2013	MW-18S 20 - 30 ft 01/15/2013	MW-18S 20 - 30 ft 01/15/2013	MW-18S 20 - 30 ft 01/31/2013	MW-18S 20 - 30 ft 02/12/2013	MW-18S 20 - 30 ft 02/12/2013	MW-18S 20 - 30 ft 02/28/2013	MW-18S 20 - 30 ft 03/12/2013	MW-18S 20 - 30 ft 04/19/2013	MW-18S 20 - 30 ft 07/17/2013	MW-18S 20 - 30 ft 10/09/2013	MW-18S 20 - 30 ft 04/22/2014	MW-18S 20 - 30 ft 10/23/2014
<b>VOCs</b>																			
1,1,1,2-Tetrachloroethane	7	70	< 1.3	NA	NA	NA	NA	NA	< 0.25	NA	NA	< 0.5	NA	< 1.3	< 1.3	< 1.3	< 1.3	< 0.25	< 0.25
1,1,1-Trichloroethane	40	200	< 1	NA	NA	NA	NA	NA	< 0.2	NA	NA	< 0.4	NA	< 1	< 1	< 1	< 1	< 0.20	< 0.20
1,1,2-Trichloroethane	0.5	5	< 1.4	NA	NA	NA	NA	NA	< 0.28	NA	NA	< 0.56	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 0.28	< 0.28
1,1-Dichloroethene	0.7	7	< 1.6	NA	NA	NA	NA	NA	< 0.31	NA	NA	< 0.62	NA	< 1.6	< 1.6	< 1.6	< 1.6	< 0.31	< 0.31
1,2,4-Trimethylbenzene	96	480	< 0.7	NA	NA	NA	NA	NA	< 0.14	NA	NA	< 0.28	NA	< 0.7	< 0.7	< 0.7	< 0.7	< 0.14	< 0.14
1,2-Dibromoethane	0.005	0.05	< 1.8	NA	NA	NA	NA	NA	< 0.36	NA	NA	< 0.72	NA	< 1.8	< 1.8	< 1.8	< 1.8	< 0.36	< 0.36
1,2-Dichlorobenzene	60	600	< 1.4	NA	NA	NA	NA	NA	< 0.27	NA	NA	< 0.54	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 0.27	< 0.27
1,2-Dichloropropane	0.5	5	< 1	NA	NA	NA	NA	NA	< 0.2	NA	NA	< 0.4	NA	< 1	< 1	< 1	< 1	< 0.20	< 0.20
1,2,3-Trichlorobenzene	NE	NE	< 1.2	NA	NA	NA	NA	NA	< 0.24	NA	NA	< 0.48	NA	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24
1,2,4-Trichlorobenzene	14	70	< 1.6	NA	NA	NA	NA	NA	< 0.31	NA	NA	< 0.62	NA	< 1.6	< 1.6	< 1.6	< 1.6	< 0.31	< 0.31
1,3,5-Trimethylbenzene	96	480	< 0.9	NA	NA	NA	NA	NA	< 0.18	NA	NA	< 0.36	NA	< 0.9	< 0.9	< 0.9	< 0.9	< 0.18	< 0.18
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.5	5	<b>3.2</b>	NA	NA	NA	NA	NA	0.46 J	NA	NA	<b>1.4</b>	NA	<b>1.9 J</b>	<b>2.2 J</b>	< 0.37	<b>1.3 J</b>	0.38 J	0.46 J
Bromodichloromethane	0.06	0.6	< 0.85	NA	NA	NA	NA	NA	< 0.17	NA	NA	< 0.34	NA	< 0.85	< 0.85	< 0.85	< 0.85	< 0.17	< 0.17
Bromoform	0.44	4.4	< 1.4	NA	NA	NA	NA	NA	< 0.28	NA	NA	< 0.56	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 0.28	< 0.28
Bromomethane	1	10	< 1.6	NA	NA	NA	NA	NA	< 0.31	NA	NA	< 0.62	NA	< 1.6	< 1.6	< 1.6	< 1.6	< 0.31	< 0.31
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.5	5	< 1.3	NA	NA	NA	NA	NA	< 0.26	NA	NA	< 0.52	NA	< 1.3	< 1.3	< 1.3	< 1.3	< 0.26	< 0.26
Chloroform	0.6	6	<b>7.2</b>	NA	NA	NA	NA	NA	<b>2.3</b>	NA	NA	<b>4.5</b>	NA	<b>7.5</b>	<b>6.2</b>	< 1	<b>5.2</b>	<b>1.4</b>	<b>2</b>
Chloromethane	3	30	< 0.9	NA	NA	NA	NA	NA	< 0.18	NA	NA	< 0.36	NA	< 0.9	< 0.9	< 0.9	< 0.9	< 0.18	< 0.18
cis-1,2-Dichloroethene	7	70	<b>150</b>	NA	NA	NA	NA	NA	<b>40</b>	NA	NA	<b>77</b>	NA	<b>110</b>	<b>99</b>	<b>70</b>	<b>78</b>	<b>21</b>	<b>26</b>
Dichlorodifluoromethane	200	1000	< 1	NA	NA	NA	NA	NA	< 0.2	NA	NA	< 0.4	NA	< 1	< 1	< 1	< 1	< 0.20	< 0.20
Ethylbenzene	140	700	< 0.65	NA	NA	NA	NA	NA	< 0.13	NA	NA	< 0.26	NA	< 0.65	< 0.65	< 0.65	< 0.65	< 0.13	< 0.13
Isopropylbenzene	NE	NE	< 0.7	NA	NA	NA	NA	NA	< 0.14	NA	NA	< 0.28	NA	< 0.7	< 0.7	< 0.7	< 0.7	< 0.14	< 0.14
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	12	60	< 1.2	NA	NA	NA	NA	NA	< 0.24	NA	NA	< 0.48	NA	< 1.2	< 1.2	< 1.2	< 1.2	< 0.24	< 0.24
Methylene chloride	0.5	5	< 3.4	NA	NA	NA	NA	NA	< 0.68	NA	NA	< 1.4	NA	< 3.4	< 3.4	< 3.4	< 3.4	< 0.68	< 0.68
Naphthalene	10	100	< 0.8	NA	NA	NA	NA	NA	< 0.16	NA	NA	< 0.32	NA	< 0.8	< 0.8	< 0.8	< 0.8	< 0.16	< 0.16
n-Butylbenzene	NE	NE	< 0.65	NA	NA	NA	NA	NA	< 0.13	NA	NA	< 0.26	NA	< 0.65	< 0.65	< 0.65	< 0.65	< 0.13	< 0.13
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NE	< 0.65	NA	NA	NA	NA	NA	< 0.13	NA	NA	< 0.26	NA	< 0.65	< 0.65	< 0.65	< 0.65	< 0.13	< 0.13
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NE	< 0.85	NA	NA	NA	NA	NA	< 0.17	NA	NA	< 0.34	NA	< 0.85	< 0.85	< 0.85	< 0.85	< 0.17	< 0.17
sec-Butylbenzene	NE	NE	< 0.75	NA	NA	NA	NA	NA	< 0.15	NA	NA	< 0.3	NA	< 0.75	< 0.75	< 0.75	< 0.75	< 0.15	< 0.15
Styrene	10	100	< 0.5	NA	NA	NA	NA	NA	< 0.1	NA	NA	< 0.2	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.10	< 0.10
tert-Butylbenzene	NE	NE	< 0.7	NA	NA	NA	NA	NA	< 0.14	NA	NA	< 0.28	NA	< 0.7	< 0.7	< 0.7	< 0.7	< 0.14	< 0.14
Tetrachloroethene	0.5	5	<b>3300</b>	NA	NA	NA	NA	NA	<b>690</b>	NA	NA	<b>1900</b>	NA	<b>2600</b>	<b>2600</b>	<b>2900</b>	<b>1800</b>	<b>520</b>	<b>520</b>
Toluene	160	800	1.1 J	NA	NA	NA	NA	NA	< 0.11	NA	NA	< 0.22	NA	< 0.55	< 0.55	< 0.55	< 0.55	< 0.11	< 0.11
trans-1,2-Dichloroethene	20	100	7.4	NA	NA	NA	NA	NA	2.6	NA	NA	3.8	NA	5.3	4.1 J	2.6 J	4.6 J	1.3	1.9
Trichloroethene	0.5	5	<b>230</b>	NA	NA	NA	NA	NA	<b>59</b>	NA	NA	<b>130</b>	NA	<b>160</b>	<b>170</b>	<b>140</b>	<b>150</b>	<b>43</b>	<b>65</b>
Vinyl chloride	0.02	0.2	< 0.5	NA	NA	NA	NA	NA	< 0.1	NA	NA	< 0.2	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.10	< 0.10
Xylenes, Total	400	2000	< 0.34	NA	NA	NA	NA	NA	< 0.068	NA	NA	< 0.14	NA	< 0.34	< 0.34	< 0.34	< 0.34	< 0.068	< 0.068
<b>Total PCBs</b>																			
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Dissolved PCBs</b>																			
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>																			
Total Dissolved Solids	NE	NE	3300	1700	4800	4300	3900	3200	2700	2800	20000	12000	15000	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes on Page 55.



Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-19D 60 - 90 ft 11/29/2012	MW-19D 60 - 90 ft 12/11/2012	MW-19D 60 - 90 ft 12/12/2012	MW-19D 60 - 90 ft 12/13/2012	MW-19D 60 - 90 ft 12/14/2012	MW-19D 60 - 90 ft 12/15/2012	MW-19D 60 - 90 ft 12/16/2012	MW-19D 60 - 90 ft 12/17/2012	MW-19D 60 - 90 ft 12/18/2012	MW-19D 60 - 90 ft 12/19/2012	MW-19D 60 - 90 ft 12/27/2012	MW-19D 60 - 90 ft 01/02/2013	MW-19D 60 - 90 ft 01/16/2013	MW-19D 60 - 90 ft 01/16/2013	MW-19D 60 - 90 ft 01/30/2013	MW-19D 60 - 90 ft 02/11/2013	MW-19D 60 - 90 ft 02/28/2013	MW-19D 60 - 90 ft 03/11/2013	MW-19D 60 - 90 ft 04/19/2013	MW-19D 60 - 90 ft 07/17/2013	MW-19D 60 - 90 ft 10/09/2013	MW-19D 60 - 90 ft 04/17/2014	MW-19D 60 - 90 ft 10/21/2014		
<b>VOCs</b>																												
1,1,1,2-Tetrachloroethane	7	70	< 1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.3	NA	< 1.3	NA	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.50
1,1,1-Trichloroethane	40	200	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	< 1	NA	< 1	< 1	< 1	< 1	< 1.0	< 0.40
1,1,2-Trichloroethane	0.5	5	< 1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.4	NA	< 1.4	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.56
1,1-Dichloroethane	0.7	7	< 1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.6	NA	< 1.6	NA	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 0.62
1,2,4-Trimethylbenzene	96	480	< 0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.7	NA	< 0.7	NA	< 0.7	< 0.7	< 0.7	< 0.7	< 0.70	< 0.28
1,2-Dibromoethane	0.005	0.05	< 1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.8	NA	< 1.8	NA	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	< 0.72
1,2-Dichlorobenzene	60	600	< 1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.4	NA	< 1.4	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.54
1,2-Dichloropropane	0.5	5	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	< 1	NA	< 1	< 1	< 1	< 1	< 1.0	< 0.40
1,2,3-Trichlorobenzene	NE	NE	< 1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.2	NA	< 1.2	NA	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.48
1,2,4-Trichlorobenzene	14	70	< 1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.6	NA	< 1.6	NA	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 0.62
1,3,5-Trimethylbenzene	96	480	< 0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.9	NA	< 0.9	NA	< 0.9	< 0.9	< 0.9	< 0.9	< 0.90	< 0.36
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.5	5	< 0.37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.37	NA	< 0.37	NA	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.15
Bromodichloromethane	0.06	0.6	< 0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.85	NA	< 0.85	NA	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.34
Bromoform	0.44	4.4	< 1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.4	NA	< 1.4	NA	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 0.56
Bromomethane	1	10	< 1.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.6	NA	< 1.6 *	NA	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 0.62
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.5	5	< 1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.3	NA	< 1.3	NA	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 0.52
Chloroform	0.6	6	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	< 1	NA	< 1	< 1	< 1	< 1	< 1.0	< 0.40
Chloromethane	3	30	< 0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.9	NA	< 0.9	NA	< 0.9	< 0.9	< 0.9	< 0.9	< 0.90	< 0.36
cis-1,2-Dichloroethene	7	70	<b>530</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>170</b>	NA	<b>450</b>	NA	<b>420</b>	<b>520</b>	<b>540</b>	<b>300</b>	<b>49</b>	<b>240</b>
Dichlorodifluoromethane	200	1000	< 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1	NA	< 1	NA	< 1	< 1	< 1	< 1	< 1.0	< 0.40
Ethylbenzene	140	700	< 0.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.65	NA	< 0.65	NA	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.26
Isopropylbenzene	NE	NE	< 0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.7	NA	< 0.7	NA	< 0.7	< 0.7	< 0.7	< 0.70	< 0.28	
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	12	60	< 1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.2	NA	< 1.2	NA	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2	< 0.48
Methylene chloride	0.5	5	< 3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	NA	< 3.4	NA	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4	< 1.4
Naphthalene	10	100	< 0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.8	NA	< 0.8	NA	< 0.8	< 0.8	< 0.8	< 0.8	< 0.80	< 0.32
n-Butylbenzene	NE	NE	< 0.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.65	NA	< 0.65	NA	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.26
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NE	< 0.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.65	NA	< 0.65	NA	< 0.65	< 0.65	< 0.65	< 0.65	< 0.65	< 0.26
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NE	< 0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.85	NA	< 0.85	NA	< 0.85	< 0.85	< 0.85	< 0.85	< 0.85	< 0.34
sec-Butylbenzene	NE	NE	< 0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.75	NA	< 0.75	NA	< 0.75	< 0.75	< 0.75	< 0.75	< 0.75	< 0.30
Styrene	10	100	< 0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.5	NA	< 0.5	NA	< 0.5	< 0.5	< 0.5	< 0.50	< 0.20	
tert-Butylbenzene	NE	NE	< 0.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.7	NA	< 0.7	NA	< 0.7	< 0.7	< 0.7	< 0.70	< 0.28	
Tetrachloroethene	0.5	5	<b>2400</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>1700</b>	NA	<b>2700</b>	NA	<b>2100</b>	<b>2200</b>	<b>2700</b>	<b>1500</b>	<b>1400</b>	<b>1500</b>
Toluene	160	800	< 0.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.55	NA	< 0.55	NA	< 0.55	< 0.55	< 0.55	< 0.55	< 0.55	< 0.22
trans-1,2-Dichloroethene	20	100	<b>7.2</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.3	NA	4.4 J	NA	5.1	6.3	8.1	4.1 J	< 1.3	3.1
Trichloroethene	0.5	5	<b>230</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>69</b>	NA	<b>180</b>	NA	<b>180</b>	<b>200</b>	<b>240</b>	<b>150</b>	<b>68</b>	<b>140</b>
Vinyl chloride	0.02	0.2	<b>9.1</b>	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>3.2</b>	NA	<b>8</b>	NA	<b>11</b>	<b>18</b>	<b>20</b>	<b>6.6</b>	< 0.50	<b>4.5</b>
Xylenes, Total	400	2000	< 0.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.34	NA	< 0.34	NA	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.14











Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-22S 24 - 35 ft 01/15/2013	MW-22S 24 - 35 ft 03/07/2013	MW-22S 24 - 35 ft 04/19/2013	MW-22S 24 - 35 ft 07/16/2013	MW-22S 24 - 35 ft 10/10/2013	MW-22S 24 - 35 ft 04/18/2014	MW-22S 24 - 35 ft 10/20/2014	MW-22S 24 - 35 ft 04/09/2015	MW-22S 24 - 35 ft 10/20/2015	MW-22S 24 - 35 ft 10/14/2016	MW-22S 24 - 35 ft 10/06/2017	MW-22S <sup>3</sup> 24 - 35 ft 10/06/2017
<b>VOCs</b>															
1,1,1,2-Tetrachloroethane	7	70		< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 0.11	< 0.11
1,1,1-Trichloroethane	40	200		< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.38	< 0.10	< 0.1	< 0.1
1,1,2-Trichloroethane	0.5	5		< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 0.1	< 0.1
1,1-Dichloroethene	0.7	7		< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 0.14	0.14 J
1,2,4-Trimethylbenzene	96	480		0.86 J	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 0.06	< 0.06
1,2-Dibromoethane	0.005	0.05		< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 0.13	< 0.13
1,2-Dichlorobenzene	60	600		< 0.27	NA	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	0.11 J	0.11 J
1,2-Dichloropropane	0.5	5		< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.43	< 0.10	< 0.1	< 0.1
1,2,3-Trichlorobenzene	NE	NE		< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.045	< 0.045
1,2,4-Trichlorobenzene	14	70		< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	0.08 BJ	< 0.077
1,3,5-Trimethylbenzene	96	480		< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 0.075	< 0.075
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 3	< 3
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 0.95	< 0.95
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 0.77	< 0.77
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	< 3.4	11 J
Benzene	0.5	5		1.1	NA	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.089	< 0.089	< 0.089
Bromodichloromethane	0.06	0.6		< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 0.077	< 0.077
Bromoform	0.44	4.4		< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.088	< 0.088
Bromomethane	1	10		< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31 *	< 0.31	< 0.80	< 0.59	< 0.59	< 0.59
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.053	< 0.053	< 0.053
Carbon tetrachloride	0.5	5		< 0.26	NA	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.038	< 0.038
Chloroform	0.6	6		1	NA	0.91 J	1.4	< 0.2	< 0.20	0.75 J	< 0.20	0.66 J	0.91	0.5	0.49 J
Chloromethane	3	30		< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	0.72 J	3	5.2
cis-1,2-Dichloroethene	7	70		1.8	NA	6.1	3.8	97	46	58	65	46	38 J	38 J	37
Dichlorodifluoromethane	200	1000		< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.54	< 0.11	< 0.11	< 0.11
Ethylbenzene	140	700		0.50	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 0.054	< 0.054
Isopropylbenzene	NE	NE		< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.081	< 0.081
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.057	< 0.057	< 0.057
Methyl tert-butyl ether	12	60		< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24 *	< 0.24	< 0.39	< 0.14	< 0.14	< 0.14
Methylene chloride	0.5	5		< 0.68	NA	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 0.14	< 0.14	< 0.14
Naphthalene	10	100		< 0.16	NA	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 0.088	< 0.088
n-Butylbenzene	NE	NE		< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.14	< 0.14
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21	< 0.21
n-Propylbenzene	NE	NE		< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.1	< 0.1
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.058	< 0.058	< 0.058
p-Isopropyltoluene	NE	NE		< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.085	< 0.085
sec-Butylbenzene	NE	NE		< 0.15	NA	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.13	< 0.13
Styrene	10	100		< 0.1	NA	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.39	< 0.065	< 0.065	< 0.065
tert-Butylbenzene	NE	NE		< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 0.12	< 0.12
Tetrachloroethene	0.5	5		180	NA	160	210	13	23	61	17	30	18	24 BJ	23 B
Toluene	160	800		1.7	NA	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	0.12 J	< 0.053	< 0.053
trans-1,2-Dichloroethene	20	100		< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	0.36 J	0.49 J	0.46 J
Trichloroethene	0.5	5		4.8	NA	5.4	8.5	6.1	4.2	7.1	2.9	4.1	9.8	9.4	9.1
Vinyl chloride	0.02	0.2		< 0.1	NA	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.20	0.40 J	0.85	0.8
Xylenes, Total	400	2000		1.5	NA	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.22	< 0.058	< 0.12	< 0.12
<b>Total PCBs</b>															
Aroclor-1016	0.003	0.03		12	< 0.033	4	< 0.064	< 0.064	< 0.065	NA	NA	NA	NA	< 0.035	< 0.035
Aroclor-1232	0.003	0.03		< 0.49	13	< 0.19	< 0.19	12	< 0.20	NA	NA	NA	NA	< 0.037	< 0.037
Aroclor-1242	0.003	0.03		< 0.69	< 0.099	< 0.19	4.7	< 0.19	7.1	NA	NA	NA	NA	< 0.038	< 0.038
Aroclor-1248	0.003	0.03		< 0.58	< 0.099	< 0.19	< 0.19	< 0.19	< 0.20	NA	NA	NA	NA	2	1.9
Total Detected PCBs	0.003	0.03		12	13	4	4.7	12	7.1	NA	NA	NA	NA	2	1.9
<b>Dissolved PCBs</b>															
Aroclor-1016	0.003	0.03		NA	< 0.037	< 0.068	< 0.065	< 0.063	< 0.067	0.89	< 0.063	< 0.064	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	< 0.11	< 0.2	< 0.19	< 0.19	< 0.20	< 0.19	< 0.19	< 0.19	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	< 0.11	< 0.2	< 0.19	< 0.19	0.28 J	< 0.19	1.9	< 0.19	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	< 0.11	< 0.2	< 0.19	< 0.19	< 0.20	< 0.19	< 0.19	< 0.19	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	ND	ND	ND	ND	0.28 J	0.89	1.9	ND	NA	NA	NA
<b>Solids</b>															
Total Dissolved Solids	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	806	830	838
Total Suspended Solids (TSS)	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	4.0	1.2 J	< 0.95

Notes on Page 55.

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-22D 45 - 50 ft 01/15/2013	MW-22D <sup>3</sup> 45 - 50 ft 01/15/2013	MW-22D 45 - 50 ft 03/08/2013	MW-22D 45 - 50 ft 04/19/2013	MW-22D <sup>3</sup> 45 - 50 ft 04/19/2013	MW-22D 45 - 50 ft 07/19/2013	MW-22D <sup>3</sup> 45 - 50 ft 07/16/2013	MW-22D 45 - 50 ft 10/10/2013	MW-22D <sup>3</sup> 45 - 50 ft 10/10/2013	MW-22D 45 - 50 ft 04/18/2014	MW-22D <sup>3</sup> 45 - 50 ft 04/18/2014	MW-22D 45 - 50 ft 10/16/2014	MW-22D <sup>3</sup> 45 - 50 ft 10/16/2014	MW-22D 45 - 50 ft 04/09/2015
<b>VOCs</b>																
1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
1,1,1-Trichloroethane	40	200	< 0.2	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
1,1,2-Trichloroethane	0.5	5	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
1,1-Dichloroethane	0.7	7	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
1,2,4-Trimethylbenzene	96	480	< 0.14	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
1,2-Dibromoethane	0.005	0.05	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36
1,2-Dichlorobenzene	60	600	< 0.27	< 0.27	NA	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27
1,2-Dichloropropane	0.5	5	< 0.2	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
1,2,3-Trichlorobenzene	NE	NE	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
1,2,4-Trichlorobenzene	14	70	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
1,3,5-Trimethylbenzene	96	480	< 0.18	< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	0.5	5	< 0.074	< 0.074	NA	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	0.47 J
Bromodichloromethane	0.06	0.6	< 0.17	< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
Bromoform	0.44	4.4	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28
Bromomethane	1	10	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	0.5	5	< 0.26	< 0.26	NA	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26
Chloroform	0.6	6	< 0.2	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Chloromethane	3	30	0.47 J	< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18
cis-1,2-Dichloroethene	7	70	3.6	3.3	NA	4.9	4.9	3.7	3.7	< 0.12	4.0	2.6	2.5	4.2	4.9	4.2
Dichlorodifluoromethane	200	1000	< 0.2	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Ethylbenzene	140	700	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
Isopropylbenzene	NE	NE	< 0.14	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	12	60	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24
Methylene chloride	0.5	5	< 0.68	< 0.68	NA	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	6.6	7.1	< 0.68
Naphthalene	10	100	< 0.16	< 0.16	NA	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16
n-Butylbenzene	NE	NE	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NE	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NE	< 0.17	< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17
sec-Butylbenzene	NE	NE	< 0.15	< 0.15	NA	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15
Styrene	10	100	< 0.1	< 0.1	NA	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
tert-Butylbenzene	NE	NE	< 0.14	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14
Tetrachloroethene	0.5	5	520	470	NA	450	430	270	310	190	190	430	450	250	270	170
Toluene	160	800	< 0.11	< 0.11	NA	< 0.11	< 0.11	0.37 J	0.38 J	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11
trans-1,2-Dichloroethene	20	100	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Trichloroethene	0.5	5	5.8	6	NA	5.8	5.7	5	5.3	4.9	5.3	6.8	6.7	5.7	6.9	5.6
Vinyl chloride	0.02	0.2	< 0.1	< 0.1	NA	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.92	< 0.10	< 0.10	0.68	0.66	0.62
Xylenes, Total	400	2000	< 0.068	< 0.068	NA	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068
<b>Total PCBs</b>																
Aroclor-1016	0.003	0.03	2.4	NA	< 0.033	< 0.064	NA	< 0.063	NA	< 0.063	NA	< 0.065	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	< 0.092	NA	2.6	< 0.19	NA	< 0.19	NA	3.3	NA	< 0.19	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	< 0.13	NA	< 0.1	< 0.19	NA	0.97	NA	< 0.19	NA	< 0.19	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	< 0.11	NA	< 0.1	< 0.19	NA	< 0.19	NA	< 0.19	NA	< 0.19	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	2.4	NA	2.6	ND	NA	0.97	NA	3.3	NA	ND	NA	NA	NA	NA
<b>Dissolved PCBs</b>																
Aroclor-1016	0.003	0.03	NA	NA	< 0.033	< 0.064	NA	< 0.064	NA	< 0.065	NA	< 0.066	NA	< 0.063	NA	< 0.063
Aroclor-1232	0.003	0.03	NA	NA	< 0.1	< 0.19	NA	< 0.19	NA	< 0.19	NA	< 0.20	NA	< 0.19	NA	< 0.19
Aroclor-1242	0.003	0.03	NA	NA	< 0.1	< 0.19	NA	< 0.19	NA	< 0.19	NA	< 0.20	NA	< 0.19	NA	4.3
Aroclor-1248	0.003	0.03	NA	NA	< 0.1	< 0.19	NA	< 0.19	NA	< 0.19	NA	< 0.20	NA	< 0.19	NA	< 0.19
Total Detected PCBs	0.003	0.03	NA	NA	ND	ND	NA	ND	NA	ND	NA	ND	NA	ND	NA	4.3
<b>Solids</b>																
Total Dissolved Solids	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Suspended Solids (TSS)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-22D <sup>3</sup> 45 - 50 ft 04/09/2015	MW-22D 45 - 50 ft 06/10/2015	MW-22D 45 - 50 ft 07/20/2015	MW-22D 45 - 50 ft 10/20/2015	MW-22D <sup>3</sup> 45 - 50 ft 10/20/2015	MW-22D 45 - 50 ft 01/22/2016	MW-22D 45 - 50 ft 04/21/2016	MW-22D 45 - 50 ft 07/20/2016	MW-22D 45 - 50 ft 10/14/2016	MW-22D 45 - 50 ft 1/20/2017	MW-22D 45 - 50 ft 04/11/2017	MW-22D 45 - 50 ft 10/06/2017	MW-22D <sup>3</sup> 45 - 50 ft 10/06/2017
<b>VOCs</b>															
1,1,1,2-Tetrachloroethane	7	70	< 0.25	NA	NA	< 0.46	< 0.46	< 0.11	< 2.2	< 0.55	< 0.44	< 0.55	< 0.55	< 0.55	< 0.55
1,1,1-Trichloroethane	40	200	< 0.20	NA	NA	< 0.38	< 0.38	< 0.10	< 2.0	< 0.50	< 0.40	< 0.50	< 0.50	< 0.5	< 0.5
1,1,2-Trichloroethane	0.5	5	< 0.28	NA	NA	< 0.35	< 0.35	< 0.10	< 2.0	< 0.50	< 0.40	< 0.50	< 0.50	< 0.5	< 0.5
1,1-Dichloroethene	0.7	7	< 0.31	NA	NA	< 0.39	< 0.39	< 0.14	< 2.8	< 0.70	< 0.56	< 0.70	< 0.70	< 0.7	< 0.7
1,2,4-Trimethylbenzene	96	480	< 0.14	NA	NA	< 0.36	< 0.36	< 0.060	< 1.2	< 0.30	< 0.24	< 0.30	< 0.30	< 0.3	< 0.3
1,2-Dibromoethane	0.005	0.05	< 0.36	NA	NA	< 0.39	< 0.39	< 0.13	< 2.6	< 0.65	< 0.52	< 0.65	< 0.65	< 0.65	< 0.65
1,2-Dichlorobenzene	60	600	< 0.27	NA	NA	< 0.33	< 0.33	< 0.076	< 1.5	< 0.38	< 0.30	< 0.38	< 0.38	< 0.38	< 0.38
1,2-Dichloropropane	0.5	5	< 0.20	NA	NA	< 0.43	< 0.43	< 0.10	< 2.0	< 0.50	< 0.40	< 0.50	< 0.50	< 0.5	< 0.5
1,2,3-Trichlorobenzene	NE	NE	< 0.24	NA	NA	< 0.46	< 0.46	< 0.045	< 0.90	< 0.23	< 0.18	< 0.23	< 0.23	< 0.23	< 0.23
1,2,4-Trichlorobenzene	14	70	< 0.31	NA	NA	< 0.34	< 0.34	< 0.077	< 1.5	< 0.39	< 0.31	< 0.39	< 0.39	< 0.39	< 0.39
1,3,5-Trimethylbenzene	96	480	< 0.18	NA	NA	< 0.25	< 0.25	< 0.075	< 1.5	< 0.38	< 0.30	< 0.38	< 0.38	< 0.38	< 0.38
2-Butanone	800	4000	NA	NA	NA	NA	NA	< 3.0	< 60	< 15	< 12	< 15	< 15	< 15	< 15
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	< 0.95	< 19	< 4.8	< 3.8	< 4.8	< 4.8	< 4.8	< 4.8
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	< 0.77	< 15	< 3.9	< 3.1	< 3.9	< 3.9	< 3.9	< 3.9
Acetone	1800	9000	NA	NA	NA	NA	NA	< 3.4	< 68	< 17	< 14	< 17	38 BJ	< 17	< 17
Benzene	0.5	5	< 0.074	NA	NA	< 0.15	< 0.15	< 0.089	< 1.8	< 0.45	< 0.36	< 0.45	<b>0.80 J</b>	< 0.45	< 0.45
Bromodichloromethane	0.06	0.6	< 0.17	NA	NA	< 0.37	< 0.37	< 0.077	< 1.5	< 0.39	< 0.31	< 0.39	< 0.39	< 0.39	< 0.39
Bromoform	0.44	4.4	< 0.28	NA	NA	< 0.48	< 0.48	< 0.088	< 1.8	< 0.44	< 0.35	< 0.44	< 0.44	< 0.44	< 0.44
Bromomethane	1	10	< 0.31	NA	NA	< 0.80	< 0.80	< 0.59	< 12	< 3.0	< 2.4	< 3.0	< 3.0	< 3	< 3
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	< 0.053	9.2 J	< 0.27	< 0.21	< 0.27	2.3 J	< 0.27	< 0.27
Carbon tetrachloride	0.5	5	< 0.26	NA	NA	< 0.38	< 0.38	< 0.038	< 0.76	< 0.19	< 0.15	< 0.19	< 0.19	< 0.19	< 0.19
Chloroform	0.6	6	< 0.20	NA	NA	< 0.37	< 0.37	0.36 J	<b>2.4 BJ</b>	< 0.31	< 0.25	0.40 BJ	<b>1.1 J</b>	< 0.31	< 0.31
Chloromethane	3	30	< 0.18	NA	NA	< 0.32	< 0.32	< 0.16	< 3.2	< 0.80	<b>3.4 J</b>	< 0.80	2.8 J+	< 0.8	<b>4.9 J</b>
cis-1,2-Dichloroethene	7	70	4.4	NA	NA	4.0	3.9	3.6 J	3.8	3.8	5.6	<b>14</b>	<b>26</b>	<b>47</b>	<b>47</b>
Dichlorodifluoromethane	200	1000	< 0.20	NA	NA	< 0.54	< 0.54	< 0.11	< 2.2	< 0.55	< 0.44	< 0.55	< 0.55	< 0.55	< 0.55
Ethylbenzene	140	700	< 0.13	NA	NA	< 0.18	< 0.18	< 0.054	< 1.1	< 0.27	< 0.22	< 0.27	< 0.27	< 0.27	< 0.27
Isopropylbenzene	NE	NE	< 0.14	NA	NA	< 0.39	< 0.39	< 0.081	< 1.6	< 0.41	< 0.32	< 0.41	< 0.41	< 0.41	< 0.41
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	< 0.057	< 1.1	< 0.29	< 0.23	< 0.29	< 0.29	< 0.29	< 0.29
Methyl tert-butyl ether	12	60	< 0.24	NA	NA	< 0.39	< 0.39	< 0.14	< 2.8	< 0.70	< 0.56	< 0.70	< 0.70	< 0.7	< 0.7
Methylene chloride	0.5	5	< 0.68	NA	NA	< 1.6	< 1.6	< 0.14	< 2.8	< 0.70	< 0.56	<b>1.3 BJ</b>	< 0.70	< 0.7	< 0.7
Naphthalene	10	100	< 0.16	NA	NA	< 0.34	< 0.34	< 0.088	< 1.8	< 0.44	< 0.35	< 0.44	1.6 BJ	< 0.44	< 0.44
n-Butylbenzene	NE	NE	< 0.13	NA	NA	< 0.39	< 0.39	< 0.14	< 2.8	< 0.70	< 0.56	< 0.70	< 0.70	< 0.7	< 0.7
n-Hexane	120	600	NA	NA	NA	NA	NA	< 0.21	< 4.2	< 1.1	< 0.84	< 1.1	< 1.1	< 1.1	< 1.1
n-Propylbenzene	NE	NE	< 0.13	NA	NA	< 0.41	< 0.41	< 0.10	< 2.0	< 0.50	< 0.40	< 0.50	< 0.50	< 0.5	< 0.5
o-Xylene	400	2000	NA	NA	NA	NA	NA	< 0.058	< 1.2	< 0.29	< 0.23	< 0.29	< 0.29	< 0.29	< 0.29
p-Isopropyltoluene	NE	NE	< 0.17	NA	NA	< 0.36	< 0.36	< 0.085	< 1.7	< 0.43	< 0.34	< 0.43	< 0.43	< 0.43	< 0.43
sec-Butylbenzene	NE	NE	< 0.15	NA	NA	< 0.40	< 0.40	< 0.13	< 2.6	< 0.65	< 0.52	< 0.65	< 0.65	< 0.65	< 0.65
Styrene	10	100	< 0.10	NA	NA	< 0.39	< 0.39	< 0.065	< 1.3	< 0.33	< 0.26	< 0.33	< 0.33	< 0.33	0.35 BJ
tert-Butylbenzene	NE	NE	< 0.14	NA	NA	< 0.40	< 0.40	< 0.12	< 2.4	< 0.60	< 0.48	< 0.60	< 0.60	< 0.6	< 0.6
Tetrachloroethene	0.5	5	<b>190</b>	NA	NA	<b>140</b>	<b>160</b>	<b>220</b>	<b>140</b>	<b>130</b>	<b>92</b>	<b>120</b>	<b>120</b>	<b>120 B</b>	<b>120 B</b>
Toluene	160	800	< 0.11	NA	NA	< 0.15	< 0.15	< 0.053	< 1.1	< 0.27	0.48 J	0.50 BJ	0.80 J	< 0.27	< 0.27
trans-1,2-Dichloroethene	20	100	< 0.25	NA	NA	< 0.35	< 0.35	0.23 J	< 2.2	< 0.55	< 0.44	0.70 J	1.3 J	2.3 J	2.5 J
Trichloroethene	0.5	5	<b>5.7</b>	NA	NA	<b>5.4</b>	<b>5.7</b>	<b>6.1</b>	<b>5.6 J</b>	<b>5.7</b>	<b>4.4</b>	<b>5.2 B</b>	<b>6.3</b>	<b>9.4</b>	<b>9.4</b>
Vinyl chloride	0.02	0.2	< 0.10	NA	NA	<b>0.66</b>	<b>0.74</b>	< 0.16	< 3.2	<b>0.85 J</b>	<b>2.2</b>	<b>4.3</b>	<b>6.5 J+</b>	<b>10</b>	<b>11</b>
Xylenes, Total	400	2000	< 0.068	NA	NA	< 0.22	< 0.22	< 0.058	< 1.2	< 0.29	< 0.23	< 0.58	< 0.58	< 0.58	< 0.58
<b>Total PCBs</b>															
Aroclor-1016	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.035	< 0.035
Aroclor-1232	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.037	< 0.037
Aroclor-1242	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.038	< 0.038
Aroclor-1248	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>0.3</b>	<b>0.31</b>
Total Detected PCBs	0.003	0.03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<b>0.3</b>	<b>0.31</b>
<b>Dissolved PCBs</b>															
Aroclor-1016	0.003	0.03	NA	< 0.066	< 0.062	< 0.069	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1232	0.003	0.03	NA	< 0.20	< 0.19	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1242	0.003	0.03	NA	< 0.20	< 0.19	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aroclor-1248	0.003	0.03	NA	< 0.20	< 0.19	< 0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Solids</b>															
Total Dissolved Solids	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	892	890
Total Suspended Solids (TSS)	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 0.95

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Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-23S 24 - 35 ft 01/15/2013	MW-23S 24 - 35 ft 04/19/2013	MW-23S 24 - 35 ft 07/16/2013	MW-23S 24 - 35 ft 09/05/2013	MW-23S 24 - 35 ft 09/05/2013	MW-23S 24 - 35 ft 10/10/2013	MW-23S 24 - 35 ft 04/18/2014	MW-23S 24 - 35 ft 10/20/2014	MW-23S 24 - 35 ft 04/09/2015	MW-23S 24 - 35 ft 10/20/2015	MW-23S 24 - 35 ft 10/14/2016	MW-23S <sup>3</sup> 24 - 35 ft 10/14/2016	MW-23S 24 - 35 ft 10/06/2017	MW-23S <sup>3</sup> 24 - 35 ft 10/06/2017
<b>VOCS</b>																	
1,1,1,2-Tetrachloroethane	7	70		< 0.25	< 0.25	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.44	< 0.22	< 0.22	< 0.55
1,1,1-Trichloroethane	40	200		< 0.2	< 0.2	< 0.2	< 0.2	NA	< 0.2	< 0.20	< 0.20	< 0.20	< 0.38	< 0.40	< 0.20	< 0.2	< 0.5
1,1,2-Trichloroethane	0.5	5		< 0.28	< 0.28	< 0.28	< 0.28	NA	<b>1.8</b>	< 0.28	< 0.28	< 0.28	< 0.35	< 0.40	< 0.20	< 0.2	< 0.5
1,1-Dichloroethane	0.7	7		< 0.31	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.56	< 0.28	< 0.28	< 0.7
1,2,4-Trimethylbenzene	96	480		< 0.14	< 0.14	< 0.14	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.24	< 0.12	< 0.12	< 0.3
1,2-Dibromoethane	0.005	0.05		< 0.36	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.52	< 0.26	< 0.26	< 0.65
1,2-Dichlorobenzene	60	600		< 0.27	< 0.27	< 0.27	< 0.27	NA	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.30	< 0.15	< 0.15	< 0.38
1,2-Dichloropropane	0.5	5		< 0.2	< 0.2	< 0.2	< 0.2	NA	< 0.2	< 0.20	< 0.20	< 0.20	< 0.43	< 0.40	< 0.20	< 0.2	< 0.5
1,2,3-Trichlorobenzene	NE	NE		< 0.24	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.18	< 0.090	< 0.09	< 0.23
1,2,4-Trichlorobenzene	14	70		< 0.31	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.31	< 0.15	< 0.15	< 0.39
1,3,5-Trimethylbenzene	96	480		< 0.18	< 0.18	< 0.18	< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.30	< 0.15	< 0.15	< 0.38
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 12	< 6.0	< 6	< 15
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.8	< 1.9	< 1.9	< 4.8
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.1	< 1.5	< 1.5	< 3.9
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 14	< 6.8	14 J	< 17
Benzene	0.5	5		<b>0.73</b>	< 0.074	< 0.074	< 0.074	NA	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.36	< 0.18	< 0.18	< 0.45
Bromodichloromethane	0.06	0.6		< 0.17	< 0.17	< 0.17	< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.31	< 0.15	< 0.15	< 0.39
Bromoform	0.44	4.4		< 0.28	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.35	< 0.18	< 0.18	< 0.44
Bromomethane	1	10		< 0.31	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31 *	< 0.31	< 0.80	< 2.4	< 1.2	< 1.2	< 3
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.11	< 0.11	< 0.27
Carbon tetrachloride	0.5	5		< 0.26	< 0.26	< 0.26	< 0.26	NA	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.15	< 0.076	< 0.076	< 0.19
Chloroform	0.6	6		< 0.2	< 0.2	< 0.2	< 0.2	NA	< 0.2	< 0.20	< 0.20	< 0.20	< 0.37	< 0.25	< 0.12	< 0.12	< 0.31
Chloromethane	3	30		1.2	< 0.18	< 0.18	< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	2.3 BJ	0.86 J	0.92 J	2.7 J
cis-1,2-Dichloroethene	7	70		< 0.12	3.7	<b>29</b>	<b>27</b>	NA	<b>16</b>	<b>16</b>	<b>19</b>	<b>20</b>	<b>9.6</b>	<b>12</b>	<b>15</b>	<b>33</b>	<b>33</b>
Dichlorodifluoromethane	200	1000		< 0.2	< 0.2	< 0.2	< 0.2	NA	< 0.2	< 0.20	< 0.20	< 0.20	< 0.54	< 0.44	< 0.22	< 0.22	< 0.55
Ethylbenzene	140	700		0.43 J	< 0.13	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.22	< 0.11	< 0.11	< 0.27
Isopropylbenzene	NE	NE		< 0.14	< 0.14	< 0.14	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.32	< 0.16	< 0.16	< 0.41
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.23	< 0.11	< 0.11	< 0.29
Methyl tert-butyl ether	12	60		< 0.24	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.39	< 0.56	< 0.28	< 0.28	< 0.7
Methylene chloride	0.5	5		< 0.68	< 0.68	< 0.68	< 0.68	NA	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 0.56	< 0.28	< 0.28	< 0.7
Naphthalene	10	100		< 0.16	< 0.16	< 0.16	< 0.16	NA	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.35	< 0.18	< 0.18	0.45 BJ
n-Butylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.56	< 0.28	< 0.28	< 0.7
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.84	< 0.42	< 0.42	< 1.1
n-Propylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.40	< 0.20	< 0.2	< 0.5
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.23	< 0.12	< 0.12	< 0.29
p-Isopropyltoluene	NE	NE		< 0.17	< 0.17	< 0.17	< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.34	< 0.17	< 0.17	< 0.43
sec-Butylbenzene	NE	NE		< 0.15	< 0.15	< 0.15	< 0.15	NA	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.52	< 0.26	< 0.26	< 0.65
Styrene	10	100		< 0.1	< 0.1	< 0.1	< 0.1	NA	< 0.1	< 0.10	< 0.10	< 0.10	< 0.39	< 0.26	< 0.13	< 0.13	0.35 BJ
tert-Butylbenzene	NE	NE		< 0.14	< 0.14	< 0.14	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.48	< 0.24	< 0.24	< 0.6
Tetrachloroethene	0.5	5		<b>290</b>	<b>580</b>	<b>420</b>	<b>240</b>	NA	<b>130</b>	<b>210</b>	<b>190</b>	<b>190</b>	<b>360</b>	<b>66</b>	<b>88</b>	<b>120 B</b>	<b>120 B</b>
Toluene	160	800		1.3	< 0.11	< 0.11	< 0.11	NA	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	< 0.21	< 0.11	< 0.11	< 0.27
trans-1,2-Dichloroethene	20	100		< 0.25	< 0.25	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	< 0.44	< 0.22	< 0.22	< 0.55
Trichloroethene	0.5	5		<b>0.64</b>	<b>1.4</b>	<b>20</b>	<b>17</b>	NA	<b>15</b>	<b>11</b>	<b>11</b>	<b>10</b>	<b>5.9</b>	<b>7.2</b>	<b>9.1</b>	<b>7.8</b>	<b>7.6</b>
Vinyl chloride	0.02	0.2		< 0.1	< 0.1	< 0.1	< 0.1	NA	< 0.1	< 0.10	< 0.10	< 0.10	< 0.20	< 0.64	< 0.32	< 0.32	< 0.8
Xylenes, Total	400	2000		0.95 J	< 0.068	< 0.068	< 0.068	NA	< 0.068	< 0.068	< 0.068	< 0.068	< 0.22	< 0.23	< 0.12	< 0.23	< 0.58
<b>Total PCBs</b>																	
Aroclor-1016	0.003	0.03		< 0.19	NA	< 0.063	< 0.028	NA	< 0.066	NA	NA	NA	NA	NA	NA	< 0.035	< 0.035
Aroclor-1232	0.003	0.03		< 0.11	NA	< 0.19	< 0.083	NA	< 0.2	NA	NA	NA	NA	NA	NA	< 0.037	< 0.037
Aroclor-1242	0.003	0.03		< 0.15	NA	< 0.19	< 0.083	NA	< 0.2	NA	NA	NA	NA	NA	NA	< 0.038	< 0.038
Aroclor-1248	0.003	0.03		< 0.13	NA	< 0.19	< 0.083	NA	< 0.2	NA	NA	NA	NA	NA	NA	<b>0.034 J</b>	< 0.02
Total Detected PCBs	0.003	0.03		ND	NA	ND	ND	NA	ND	NA	NA	NA	NA	NA	NA	<b>0.034 J</b>	ND
<b>Dissolved PCBs</b>																	
Aroclor-1016	0.003	0.03		NA	NA	< 0.063	NA	< 0.026	< 0.064	NA	< 0.063	< 0.063	< 0.063	NA	NA	NA	NA
Aroclor-1232	0.003	0.03		NA	NA	< 0.19	NA	< 0.078	< 0.19	NA	< 0.19	< 0.19	< 0.19	NA	NA	NA	NA
Aroclor-1242	0.003	0.03		NA	NA	< 0.19	NA	< 0.078	< 0.19	NA	< 0.19	< 0.19	< 0.19	NA	NA	NA	NA
Aroclor-1248	0.003	0.03		NA	NA	< 0.19	NA	< 0.078	< 0.19	NA	< 0.19	< 0.19	< 0.19	NA	NA	NA	NA
Total Detected PCBs	0.003	0.03		NA	NA	ND	NA	ND	ND	NA	ND	ND	ND	NA	NA	NA	NA
<b>Solids</b>																	
Total Dissolved Solids	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	478	NA	656	644
Total Suspended Solids (TSS)	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.8	NA	16.8	18

Notes on Page 55.

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-23D 45 - 50 ft 01/14/2013	MW-23D 45 - 50 ft 03/08/2013	MW-23D 45 - 50 ft 04/19/2013	MW-23D 45 - 50 ft 04/20/2013	MW-23D 45 - 50 ft 07/17/2013	MW-23D 45 - 50 ft 10/10/2013	MW-23D 45 - 50 ft 04/18/2014	MW-23D 45 - 50 ft 10/20/2014	MW-23D 45 - 50 ft 04/09/2015	MW-23D 45 - 50 ft 10/20/2015	MW-23D 45 - 50 ft 01/22/2016	MW-23D 45 - 50 ft 04/21/2016	MW-23D 45 - 50 ft 07/20/2016	MW-23D 45 - 50 ft 10/14/2016	MW-23D 45 - 50 ft 1/20/2017	MW-23D 45 - 50 ft 04/11/2017	MW-23D 45 - 50 ft 04/11/2017	MW-23D 45 - 50 ft 10/06/2017	MW-23D 45 - 50 ft 10/06/2017
<b>VOCs</b>																					
1,1,1,2-Tetrachloroethane	7	70	< 0.25	NA	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 2.2	< 0.55	< 0.11	< 1.1	< 1.1	< 0.11	< 0.55	< 0.55
1,1,1-Trichloroethane	40	200	< 0.2	NA	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.38	< 0.10	< 2.0	< 0.50	< 0.10	< 1.0	< 1.0	< 0.10	< 0.5	< 0.5
1,1,2-Trichloroethane	0.5	5	< 0.28	NA	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 2.0	< 0.50	< 0.10	< 1.0	< 1.0	< 0.10	< 0.5	< 0.5
1,1-Dichloroethane	0.7	7	< 0.31	NA	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 2.8	< 0.70	< 0.14	< 1.4	< 1.4	< 0.14	< 0.7	< 0.7
1,2,4-Trimethylbenzene	96	480	< 0.14	NA	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 1.2	< 0.30	< 0.060	< 0.60	< 0.60	< 0.060	< 0.3	< 0.3
1,2-Dibromoethane	0.005	0.05	< 0.36	NA	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 2.6	< 0.65	< 0.13	< 1.3	< 1.3	< 0.13	< 0.65	< 0.65
1,2-Dichlorobenzene	60	600	< 0.27	NA	< 0.27	NA	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	< 1.5	< 0.38	< 0.076	< 0.76	< 0.76	< 0.076	< 0.38	< 0.38
1,2-Dichloropropane	0.5	5	< 0.2	NA	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.43	< 0.10	< 2.0	< 0.50	< 0.10	< 1.0	< 1.0	< 0.10	< 0.5	< 0.5
1,2,3-Trichlorobenzene	NE	NE	< 0.24	NA	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.90	< 0.23	< 0.045	< 0.45	< 0.45	< 0.045	< 0.23	< 0.23
1,2,4-Trichlorobenzene	14	70	< 0.31	NA	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	< 1.5	< 0.39	< 0.077	< 0.77	< 0.77	< 0.077	< 0.39	< 0.39
1,3,5-Trimethylbenzene	96	480	< 0.18	NA	< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 1.5	< 0.38	< 0.075	< 0.75	< 0.75	< 0.075	< 0.38	< 0.38
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 60	< 15	< 3.0	< 30	< 30	< 3.0	< 15	< 15
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 19	< 4.8	< 0.95	< 9.5	< 9.5	< 0.95	< 4.8	< 4.8
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 15	< 3.9	< 0.77	< 7.7	< 7.7	< 0.77	< 3.9	< 3.9
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	< 68	< 17	< 3.4	< 34	< 34	9.6 BJ	< 17	< 17
Benzene	0.5	5	0.32 J	NA	< 0.074	NA	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.089	< 1.8	< 0.45	< 0.089	< 0.89	< 0.89	< 0.089	< 0.45	< 0.45
Bromodichloromethane	0.06	0.6	< 0.17	NA	< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.077	< 1.5	< 0.39	< 0.077	1.1 BJ	< 0.77	< 0.77	< 0.39	< 0.39
Bromoform	0.44	4.4	< 0.28	NA	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 1.8	< 0.44	< 0.088	< 0.88	< 0.88	< 0.088	< 0.44	< 0.44
Bromomethane	1	10	< 0.31	NA	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 0.59	< 12	< 3.0	< 0.59	< 5.9	< 5.9	< 0.59	< 3	< 3
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.053	< 1.1	< 0.27	< 0.053	1.4 J	< 0.53	< 0.53	< 0.27	< 0.27
Carbon tetrachloride	0.5	5	< 0.26	NA	< 0.26	NA	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.76	< 0.19	< 0.038	< 0.38	< 0.38	< 0.038	< 0.19	< 0.19
Chloroform	0.6	6	< 0.2	NA	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.37	< 0.062	2.2 BJ	< 0.31	< 0.062	1.1 BJ	1.1 J	< 0.062	< 0.31	< 0.31
Chloromethane	3	30	< 0.18	NA	< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	< 0.16	< 3.2	< 0.80	< 0.16	3.2 BJ	< 1.6	< 1.6	1.5 J	4.3 J
cis-1,2-Dichloroethene	7	70	< 0.12	NA	< 0.12	NA	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.41	< 0.11	< 2.2	< 0.55	< 0.11	< 1.1	< 1.1	< 0.11	< 0.55	< 0.55
Dichlorodifluoromethane	200	1000	< 0.2	NA	< 0.2	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.54	0.27 J	< 2.2	< 0.55	< 0.11	< 1.1	< 1.1	< 0.11	< 0.55	< 0.55
Ethylbenzene	140	700	0.20 J	NA	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 1.1	< 0.27	< 0.054	< 0.54	< 0.54	< 0.054	< 0.27	< 0.27
Isopropylbenzene	NE	NE	< 0.14	NA	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 1.6	< 0.41	< 0.081	< 0.81	< 0.81	< 0.081	< 0.41	< 0.41
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.057	< 1.1	< 0.29	< 0.057	< 0.57	< 0.57	< 0.057	< 0.29	< 0.29
Methyl tert-butyl ether	12	60	< 0.24	NA	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.39	< 0.14	< 2.8	< 0.70	< 0.14	< 1.4	< 1.4	< 0.14	< 0.7	< 0.7
Methylene chloride	0.5	5	< 0.68	NA	< 0.68	NA	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	0.57 J	< 2.8	< 0.70	< 0.14	1.8 BJ	< 1.4	< 1.4	< 0.7	< 0.7
Naphthalene	10	100	< 0.16	NA	< 0.16	NA	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 1.8	< 0.44	< 0.088	< 0.88	< 0.88	< 0.088	< 0.44	< 0.44
n-Butylbenzene	NE	NE	< 0.13	NA	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 2.8	< 0.70	< 0.14	< 1.4	< 1.4	< 0.14	< 0.7	< 0.7
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 4.2	< 1.1	< 0.21	< 2.1	< 2.1	< 0.21	< 1.1	< 1.1
n-Propylbenzene	NE	NE	< 0.13	NA	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 2.0	< 0.50	< 0.10	< 1.0	< 1.0	< 0.10	< 0.5	< 0.5
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.058	< 1.2	< 0.29	< 0.058	< 0.58	< 0.58	< 0.058	< 0.29	< 0.29
p-Isopropyltoluene	NE	NE	< 0.17	NA	< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 1.7	< 0.43	< 0.085	< 0.85	< 0.85	< 0.085	< 0.43	< 0.43
sec-Butylbenzene	NE	NE	< 0.15	NA	< 0.15	NA	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 2.6	< 0.65	< 0.13	< 1.3	< 1.3	< 0.13	< 0.65	< 0.65
Styrene	10	100	< 0.1	NA	< 0.1	NA	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.39	< 0.065	< 1.3	< 0.33	< 0.065	< 0.65	< 0.65	< 0.065	0.45 J	< 0.33
tert-Butylbenzene	NE	NE	< 0.14	NA	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 2.4	< 0.60	< 0.12	< 1.2	< 1.2	< 0.12	< 0.6	< 0.6
Tetrachloroethene	0.5	5	100	NA	86	NA	170	160	190	190	220	84	170	130	160	160	140	140	140	130 B	130 B
Toluene	160	800	0.60	NA	< 0.11	NA	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	< 0.053	< 1.1	< 0.27	< 0.053	1.6 BJ	< 0.53	< 0.53	< 0.27	< 0.27
trans-1,2-Dichloroethene	20	100	< 0.25	NA	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	< 0.11	< 2.2	< 0.55	< 0.11	< 1.1	< 1.1	< 0.11	< 0.55	< 0.55
Trichloroethene	0.5	5	< 0.19	NA	0.53	NA	0.21 J	< 0.19	< 0.19	0.27 J	< 0.19	< 0.16	0.22 J	< 1.2	< 0.31	0.19 J	< 0.62	< 0.62	0.16 J	< 0.31	< 0.31
Vinyl chloride	0.02	0.2	< 0.1	NA	< 0.1	NA	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.20	< 0.16	< 3.2	< 0.80	< 0.16	< 1.6	< 1.6	< 0.16	< 0.8	< 0.8
Xylenes, Total	400	2000	0.68 J	NA	< 0.068	NA	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.22	< 0.058	< 1.2	< 0.29	< 0.058	< 1.2	< 1.2	< 0.12	< 0.58	< 0.58
<b>Total PCBs</b>																					
Aroclor-1016	0.003	0.03	< 0.16	< 0.034	NA																

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-24 30 - 40 ft 04/29/2013	MW-24 30 - 40 ft 07/19/2013	MW-24 30 - 40 ft 10/08/2013	MW-24 30 - 40 ft 04/17/2014	MW-24 30 - 40 ft 10/14/2014	MW-24 30 - 40 ft 10/09/2017	MW-25D 120 - 130 ft 05/06/2013	MW-25D <sup>2</sup> 120 - 130 ft 05/06/2013	MW-25D 120 - 130 ft 07/19/2013	MW-25D 120 - 130 ft 10/09/2013	MW-25D 120 - 130 ft 04/21/2014	MW-25D 120 - 130 ft 07/09/2014	MW-25D 120 - 130 ft 08/26/2014	MW-25D 120 - 130 ft 10/20/2014	MW-25D 120 - 130 ft 01/28/2015	MW-25D 120 - 130 ft 04/10/2015	MW-25D 120 - 130 ft 07/21/2015	MW-25D 120 - 130 ft 10/19/2015	MW-25D 120 - 130 ft 10/11/2016	MW-25D 120 - 130 ft 10/03/2017	
<b>VOCs</b>																							
1,1,1,2-Tetrachloroethane	7	70	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	NA	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.11	< 0.11
1,1,1-Trichloroethane	40	200	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.38	< 0.10	< 0.1
1,1,2-Trichloroethane	0.5	5	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.10	< 0.1
1,1-Dichloroethane	0.7	7	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.14	< 0.14
1,2,4-Trimethylbenzene	96	480	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.060	< 0.06
1,2-Dibromoethane	0.005	0.05	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	NA	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.13	< 0.13
1,2-Dichlorobenzene	60	600	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	NA	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.076	< 0.076
1,2-Dichloropropane	0.5	5	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.43	< 0.10	< 0.1
1,2,3-Trichlorobenzene	NE	NE	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.045	< 0.045
1,2,4-Trichlorobenzene	14	70	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.077	< 0.077
1,3,5-Trimethylbenzene	96	480	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.075	< 0.075
2-Butanone	800	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.0	< 3
2-Hexanone	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.95	< 0.95
4-Methyl-2-pentanone	50	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.77	< 0.77
Acetone	1800	9000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 3.4	< 3.4
Benzene	0.5	5	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	NA	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.089	< 0.089
Bromodichloromethane	0.06	0.6	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.47	< 0.077	< 0.077
Bromoform	0.44	4.4	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	NA	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.088	< 0.088
Bromomethane	1	10	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31 *	NA	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 0.59	< 0.59
Carbon disulfide	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.053	< 0.053
Carbon tetrachloride	0.5	5	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	NA	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.038	< 0.038
Chloroform	0.6	6	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.37	< 0.062	0.08 J
Chloromethane	3	30	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	NA	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	0.37 BJ	0.82 J+
cis-1,2-Dichloroethene	7	70	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	NA	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	< 0.41	< 0.11	< 0.11
Dichlorodifluoromethane	200	1000	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	NA	< 0.2	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.54	< 0.11	< 0.11
Ethylbenzene	140	700	< 0.13	0.31 J	< 0.13	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	0.35 J	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.054	< 0.054
Isopropylbenzene	NE	NE	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.081	< 0.081
m,p-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.057	0.06 BJ
Methyl tert-butyl ether	12	60	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	NA	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.39	< 0.14	< 0.14
Methylene chloride	0.5	5	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	NA	< 0.68	< 0.68	< 0.68	<b>5.3</b>	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	0.23 J	<b>0.51 J</b>
Naphthalene	10	100	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	NA	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16 *	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.088	< 0.088
n-Butylbenzene	NE	NE	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.14	< 0.14
n-Hexane	120	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.21	< 0.21
n-Propylbenzene	NE	NE	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	NA	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.10	< 0.1
o-Xylene	400	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.058	< 0.058
p-Isopropyltoluene	NE	NE	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	NA	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.085	< 0.085
sec-Butylbenzene	NE	NE	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	NA	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.13	< 0.13
Styrene	10	100	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	NA	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.39	< 0.065	0.07 BJ
tert-Butylbenzene	NE	NE	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	NA	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.12	< 0.12
Tetrachloroethene	0.5	5	<b>3</b>	<b>3</b>	<b>3.3</b>	<b>2.8</b>	<b>0.83 J</b>	NA	<b>0.76 J</b>	<b>3.3</b>	<b>2.8</b>	<b>3.1</b>	<b>1.3</b>	<b>1.2</b>	<b>1.1</b>	<b>0.54 J</b>	<b>0.86 J</b>	<b>0.66 J</b>	<b>0.51 J</b>	<b>0.55</b>	<b>0.55</b>	0.37 J-	
Toluene	160	800	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	NA	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	0.49 J	0.73	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	0.55	0.090 J	0.07 BJ
trans-1,2-Dichloroethene																							





Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

WELL ID	SCREEN INTERVAL (feet bgs)	PREVENTIVE ACTION LIMIT	ENFORCEMENT STANDARD	MW-27D2 170 - 180 ft 12/26/2013	MW-27D2 170 - 180 ft 04/18/2014	MW-27D2 170 - 180 ft 07/09/2014	MW-27D2 <sup>3</sup> 170 - 180 ft 07/09/2014	MW-27D2 170 - 180 ft 10/21/2014	MW-27D2 170 - 180 ft 01/29/2015	MW-27D2 <sup>3</sup> 170 - 180 ft 01/29/2015	MW-27D2 170 - 180 ft 04/14/2015	MW-27D2 170 - 180 ft 07/21/2015	MW-27D2 <sup>3</sup> 170 - 180 ft 07/21/2015	MW-27D2 170 - 180 ft 10/20/2015	MW-27D2 170 - 180 ft 10/11/2016	MW-27D2 <sup>3</sup> 170 - 180 ft 10/11/2016	MW-27D2 170 - 180 ft 10/04/2017	MW-28 27.7 - 37.7 ft 03/13/2015	MW-28 27.7 - 37.7 ft 04/09/2015	MW-28 27.7 - 37.7 ft 10/20/2015	MW-28 27.7 - 37.7 ft 10/10/2017
<b>VOCs</b>																					
1,1,1,2-Tetrachloroethane	7	70		< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.46	< 0.22	< 0.22	< 0.11	NA	NA	NA	NA
1,1,1-Trichloroethane	40	200		< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.38	< 0.20	< 0.20	< 0.1	NA	NA	NA	NA
1,1,2-Trichloroethane	0.5	5		< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.35	< 0.20	< 0.20	< 0.1	NA	NA	NA	NA
1,1-Dichloroethene	0.7	7		< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.39	< 0.28	< 0.28	< 0.14	NA	NA	NA	NA
1,2,4-Trimethylbenzene	96	480		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.36	< 0.12	< 0.12	< 0.06	NA	NA	NA	NA
1,2-Dibromoethane	0.005	0.05		< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.39	< 0.26	< 0.26	< 0.13	NA	NA	NA	NA
1,2-Dichlorobenzene	60	600		< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.27	< 0.33	< 0.15	< 0.15	< 0.076	NA	NA	NA	NA
1,2-Dichloropropane	0.5	5		< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.43	< 0.20	< 0.20	< 0.1	NA	NA	NA	NA
1,2,3-Trichlorobenzene	NE	NE		< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.46	< 0.090	< 0.090	< 0.045	NA	NA	NA	NA
1,2,4-Trichlorobenzene	14	70		< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.34	< 0.15	< 0.15	< 0.077	NA	NA	NA	NA
1,3,5-Trimethylbenzene	96	480		< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.25	< 0.15	< 0.15	< 0.075	NA	NA	NA	NA
2-Butanone	800	4000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 6.0	< 6.0	< 3	NA	NA	NA	NA
2-Hexanone	NE	NE		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.9	< 1.9	< 0.95	NA	NA	NA	NA
4-Methyl-2-pentanone	50	500		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 1.5	< 1.5	< 0.77	NA	NA	NA	NA
Acetone	1800	9000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 6.8	< 6.8	3.5 J	NA	NA	NA	NA
Benzene	0.5	5		< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.074	< 0.15	< 0.18	< 0.18	< 0.089	NA	NA	NA	NA
Bromodichloromethane	0.06	0.6		< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.37	< 0.15	< 0.15	< 0.077	NA	NA	NA	NA
Bromoform	0.44	4.4		< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.28	< 0.48	< 0.18	< 0.18	< 0.088	NA	NA	NA	NA
Bromomethane	1	10		< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.31	< 0.80	< 1.2	< 1.2	< 0.59	NA	NA	NA	NA
Carbon disulfide	200	1000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.11	< 0.11	< 0.053	NA	NA	NA	NA
Carbon tetrachloride	0.5	5		< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.38	< 0.076	< 0.076	< 0.038	NA	NA	NA	NA
Chloroform	0.6	6		< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.37	< 0.12	< 0.12	< 0.062	NA	NA	NA	NA
Chloromethane	3	30		< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.18	< 0.32	0.90 BJ	1.0 J	0.46 J	NA	NA	NA	NA
cis-1,2-Dichloroethene	7	70		3.7	12	11	11	12	11	11	8.2	6.1	6.1	1.8	21	23	9.4	NA	NA	NA	NA
Dichlorodifluoromethane	200	1000		< 0.2	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.54	< 0.22	< 0.22	< 0.11	NA	NA	NA	NA
Ethylbenzene	140	700		< 0.13	< 0.13	< 0.13	0.36 J	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.18	< 0.11	< 0.11	< 0.054	NA	NA	NA	NA
Isopropylbenzene	NE	NE		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.39	< 0.16	< 0.16	< 0.081	NA	NA	NA	NA
m,p-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.11	< 0.11	< 0.057	NA	NA	NA	NA
Methyl tert-butyl ether	12	60		< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	< 0.24	0.83 J	< 0.28	< 0.28	< 0.14	NA	NA	NA	NA
Methylene chloride	0.5	5		< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 0.68	< 1.6	< 0.28	< 0.28	< 0.14	NA	NA	NA	NA
Naphthalene	10	100		< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.34	< 0.18	< 0.18	< 0.088	NA	NA	NA	NA
n-Butylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.39	< 0.28	< 0.28	< 0.14	NA	NA	NA	NA
n-Hexane	120	600		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.42	< 0.42	< 0.21	NA	NA	NA	NA
n-Propylbenzene	NE	NE		< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.13	< 0.41	< 0.20	< 0.20	< 0.1	NA	NA	NA	NA
o-Xylene	400	2000		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.12	< 0.12	< 0.058	NA	NA	NA	NA
p-Isopropyltoluene	NE	NE		< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.17	< 0.36	< 0.17	< 0.17	< 0.085	NA	NA	NA	NA
sec-Butylbenzene	NE	NE		< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.15	< 0.40	< 0.26	< 0.26	< 0.13	NA	NA	NA	NA
Styrene	10	100		< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.39	< 0.13	< 0.13	< 0.065	NA	NA	NA	NA
tert-Butylbenzene	NE	NE		< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.14	< 0.40	< 0.24	< 0.24	< 0.12	NA	NA	NA	NA
Tetrachloroethene	0.5	5		11	44	36	35	41	38	36	25	17	17	3.1	67	63	24	NA	NA	NA	NA
Toluene	160	800		0.20 J	< 0.11	0.43 J	0.41 J	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.11	< 0.15	< 0.11	0.18 J	0.08 J	NA	NA	NA	NA
trans-1,2-Dichloroethene	20	100		< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.35	0.64 J	0.66 J	0.33 J	NA	NA	NA	NA
Trichloroethene	0.5	5		7.2	25	21	20	23	23	23	17	15	16	2.5	45	45	18	NA	NA	NA	NA
Vinyl chloride	0.02	0.2		< 0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.20	< 0.32	< 0.32	< 0.16	NA	NA	NA	NA
Xylenes, Total	400	2000		< 0.068	< 0.068	1.6	1.6	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.068	< 0.22	< 0.12	< 0.12	< 0.12	NA	NA	NA	NA
<b>Total PCBs</b>																					
Aroclor-1016	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.035
Aroclor-1232	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.037
Aroclor-1242	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.038
Aroclor-1248	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	< 0.02
Total Detected PCBs	0.003	0.03		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
<b>Dissolved PCBs</b>																					
Aroclor-1016	0.003	0.03		NA	NA	NA	NA														

Table 18  
Groundwater Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

**Footnotes:**

- 1 - Indicates that the sample was quenched prior to analysis.
- 2 - Indicates that the sample was not quenched prior to analysis.
- 3 - Indicates the result of a field duplicate.

Updated By: Peggy Popp 11/2/2017  
Checked By: K. Barber/A. Stehn 11/8/2017

**General Notes:**

All concentrations noted in this table are reported in micrograms per liter (µg/L) unless otherwise noted.  
Analytes shown in the table are from VOC and PCB analyte lists. Only analytes that were detected in at least one sample are shown in the table. A complete list of constituents analyzed are included in the laboratory analytical reports.

**100** = NR 140 Wis. Adm. Code Preventive Action Limit Exceedance

**100** = NR 140 Wis. Adm. Code Enforcement Standard Exceedance

< = Constituent not detected above noted laboratory method detection limit.

\* = Data is suspect and not used in evaluation. (Note from historical data through 2015, provided by Arcadis)

B = Compound was found in the blank and sample.

bgs = Below Ground Surface.

cn = Laboratory Contaminant.

E = Estimated concentration, exceeds instrumental calibration range.

ID = Identification.

J = Estimated concentration above the adjusted method detection limit and below the reporting limit.

J- = Results may be biased low because of non-compliant laboratory quality check.

J+ = Results may be biased high because of non-compliant laboratory quality check.

NA = Not Analyzed.

ND = Not Detected.

NE = Not Established.

PCBs = Polychlorinated biphenyls.

VOCs = Volatile Organic Compounds.



Table 19  
Groundwater Monitoring Plan - 2018  
Madison-Kipp Corporation  
201 Waubesa Street  
Madison, Wisconsin

WELL/ POINT ID	BEDROCK UNIT	SCREENED INTERVAL (ft bgs)	APRIL & OCTOBER GAUGING	APRIL VOC SAMPLING	OCTOBER VOC SAMPLING	APRIL/ OCTOBER PCB SAMPLING	PUMP TYPE
GWE-1*	Lone Rock/ Wonewoc	55-175	x	x	x		NA
MW-1	Unconsolidated	14-24	x		x		Peristaltic
MW-2S	Unconsolidated	19-29	x				NA
MW-2D	Upper Lone Rock	39-44	x	x	x		Peristaltic
MW-3S	Unconsolidated	19-29	x		x		Peristaltic
MW-3D	Upper Lone Rock	48-53	x	x	x		Peristaltic
MW-3D2	Lower Lone Rock	76-81	x	x	x		Peristaltic
MW-3D3	Lower Wonewoc/ Upper Eau Claire	214-224	x		x		GeoSub
MW-4S	Unconsolidated/ Upper Lone Rock	35-50	x			x	NA
MW-4D	Lower Lone Rock	65-70	x			x	NA
MW-4D2	Lower Lone Rock	91-96	x	x	x		Bladder
MW-5S	Upper Lone Rock	34-44	x		x		Peristaltic
MW-5D	Lower Lone Rock	75-80	x	x	x		Peristaltic
MW-5D2	Lower Wonewoc	166-171	x	x	x		Bladder
MW-5D3	Lower Wonewoc/ Upper Eau Claire	225-235	x	x	x		GeoSub
MW-6S	Unconsolidated/ Upper Lone Rock	32-42	x		x	x	Bladder
MW-6D	Lower Lone Rock	66-71	x	x	x		Bladder
MW-7	Unconsolidated	25-35	x				NA
MW-8	Unconsolidated	24-34	x				NA
MW-9D	Upper Lone Rock	44-49	x		x		Peristaltic
MW-9D2	Lower Lone Rock	64-69	x	x	x		Peristaltic
MW-10S	Unconsolidated	11-21	x				NA
MW-11S	Unconsolidated	24-34	x			x	NA
MW-12S	Unconsolidated	3-13	x				NA
MW-17	Upper Wonewoc	160-170	x	x	x		Bladder
MW-18S	Unconsolidated	20-30	x				NA
MW-21D2	Upper/Lower Wonewoc	110-170	x				NA
MW-22S	Unconsolidated	25-35					Well Abandoned on January 16, 2018
MW-22D	Upper Lone Rock	45-50					Well Abandoned on January 16, 2018
MW-23S	Unconsolidated	25-35					Well Abandoned on January 16, 2018
MW-23D	Upper Lone Rock	45-50					Well Abandoned on January 16, 2018
MW-24	Upper Lone Rock	30-40	x			x	NA
MW-25D	Upper Wonewoc	120-130	x		x		Bladder
MW-25D2	Upper Wonewoc	160-170	x	x	x		Bladder
MW-26S	Unconsolidated	6.8-16.8	x				NA
MW-27D	Lower Wonewoc	130-140	x	x	x		Bladder
MW-27D2	Lower Wonewoc	170-180	x		x		Bladder
MW-28	Unconsolidated	28-38	x		x	x	Peristaltic
MW-29S	Unconsolidated	24-34	x			x	Peristaltic
MW-29D	Upper Lone Rock	45-50	x			x	Bladder
MP-13 Port 1	Lower Wonewoc	163-167	x		x		Westbay
MP-13 Port 2	Lower Wonewoc	135-139	x		x		Westbay
MP-13 Port 3	Upper Wonewoc	121-125	x		x		Westbay
MP-13 Port 4	Upper Wonewoc	102-106	x		x		Westbay
MP-13 Port 5	Lower Lone Rock	81-85	x		x		Westbay
MP-13 Port 6	Lower Lone Rock	67-71	x		x		Westbay
MP-13 Port 7	Upper Lone Rock	44-48	x		x		Westbay

Table 19  
 Groundwater Monitoring Plan - 2018  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

WELL/ POINT ID	BEDROCK UNIT	SCREENED INTERVAL (ft bgs)	APRIL & OCTOBER GAUGING	APRIL VOC SAMPLING	OCTOBER VOC SAMPLING	APRIL/ OCTOBER PCB SAMPLING	PUMP TYPE
MP-14 Port 1	Lower Wonewoc	170-178	x		x		Westbay
MP-14 Port 2	Lower Wonewoc	135-140	x	x	x		Westbay
MP-14 Port 3	Upper Wonewoc	100-105	x		x		Westbay
MP-14 Port 4	Lower Lone Rock	70-75	x				NA
MP-15 Port 1	Lower Wonewoc	177-187	x		x		Westbay
MP-15 Port 2	Lower Wonewoc	142-146	x		x		Westbay
MP-15 Port 3	Lower Wonewoc	120-125	x		x		Westbay
MP-15 Port 4	Upper Wonewoc	100-105	x		x		Westbay
MP-15 Port 5	Upper Wonewoc	88-92	x		x		Westbay
MP-16 Port 1	Lower Wonewoc	175-179	x		x		Westbay
MP-16 Port 2	Lower Wonewoc	140-144	x	x	x		Westbay
MP-16 Port 3	Upper Wonewoc	106-116	x		x		Westbay
MP-16 Port 4	Lower Lone Rock	80-84	x				NA
<b>Total Sample Points:</b>			<b>56</b>	<b>15</b>	<b>40</b>	<b>8</b>	

Notes:

\* = The GWE-1 influent sample results from the month of the sampling event will be used.

Update By A. Stehn 12/11/17

Checked By: B. Wachholz 1/29/18

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-1N	VP-1N	VP-1N	VP-1N	VP-1N	VP-1N	VP-1N	VP-1N
	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	9/17/2009	10/26/2012	7/15/2013	1/29/2014	7/22/2014	7/22/2015	7/20/2016	7/25/2017
<b>VOC</b>										
cis-1,2-Dichloroethene	NE	NE	--	0.52	2.6	< 0.14	< 0.17	< 0.16	11	< 0.093
trans-1,2-Dichloroethene	NE	NE	--	< 0.36	< 0.26	< 0.14	< 0.17	< 0.16	< 0.13	< 0.18
1,2-Dichloroethene	NE	NE	< 20	0.52	2.6	< 0.14	< 0.17	NA	NA	NA
Tetrachloroethene	27,000	620	160	65	76	< 0.14	1.8	0.29	31	< 0.064
Trichloroethene	1,600	39	< 10	0.52	1.1	< 0.14	< 0.17	< 0.16	13	< 0.12
Vinyl chloride <sup>3</sup>	11,000	65	--	< 0.36	< 0.26	< 0.14	< 0.17	< 0.16	< 0.19	< 0.072

**Footnotes:**

1 = VALs in accordance with *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>

2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017  
Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

<= constituent not detected above noted laboratory method detection limit

> = greater than

-- = not designated

\*D = limit of detection not achievable due to dilution

\*IS = the internal standard quality control limit is exceeded

AF = Attenuation Factor

NE = Criteria Not Established

NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-1S	VP-1S	VP-1S	VP-1S	VP-1S	VP-1S	VP-1S	VP-1S
	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	9/17/2009	10/26/2012	7/15/2013	1/29/2014	7/22/2014	7/22/2015	7/20/2016	07/25/2017
<b>VOC</b>										
cis-1,2-Dichloroethene	NE	NE	--	< 0.15	0.26	< 0.14	0.19	< 0.14	7.6	< 0.098
trans-1,2-Dichloroethene	NE	NE	--	< 0.15	< 0.16	< 0.14	< 0.16	< 0.14	< 0.14	< 0.19
1,2-Dichloroethene	NE	NE	341	< 0.15	0.26	< 0.14	0.19	NA	NA	NA
Tetrachloroethene	27,000	620	1,400	4.8	33	0.9	4.7	< 0.14	31	6.2
Trichloroethene	1,600	39	260	0.15	0.44	< 0.14	0.21	< 0.14	8.2	< 0.12
Vinyl chloride <sup>3</sup>	11,000	65	--	< 0.15	< 0.16	< 0.14	< 0.16	< 0.014	< 0.21	< 0.076

**Footnotes:**

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Updated By: P. Popp 9/13/2017  
Checked By: A. Stehn 9/14/2017

**Notes:**

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Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-2N	VP-2N	VP-2N	VP-2N	VP-2N	VP-2N	VP-2N	VP-2N
	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	9/17/2009	10/26/2012	7/15/2013	1/29/2014	7/22/2014	7/22/2015	7/20/2016	07/25/2017
<b>VOC</b>										
cis-1,2-Dichloroethene	NE	NE	NA	< 0.93	2.5	< 0.14	< 0.18	< 0.16	7.8	< 0.094
trans-1,2-Dichloroethene	NE	NE	NA	< 0.93	< 0.39	< 0.14	< 0.18	< 0.16	< 0.14	< 0.19
1,2-Dichloroethene	NE	NE	500	< 0.93	2.5	< 0.14	< 0.18	NA	NA	NA
Tetrachloroethene	27,000	620	1,300	160	110	< 0.14	1.5	< 0.16	20	< 0.065
Trichloroethene	1,600	39	370	< 0.93	1.4	< 0.14	< 0.18	< 0.16	8.2	< 0.12
Vinyl chloride <sup>3</sup>	11,000	65	NA	< 0.93	< 0.39	< 0.14	< 0.18	< 0.016	< 0.21	< 0.073

**Footnotes:**

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2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017  
Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

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Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION SAMPLE DATE	DEEP SOIL GAS		VP-2S	VP-2S	VP-2S	VP-2S	VP-2S	VP-2S
	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	9/17/2009	10/26/2012	7/15/2013	1/29/2014	7/22/2014	7/22/2015
<b>VOC</b>								
cis-1,2-Dichloroethene	NE	NE	--	< 0.14	0.54	0.36	0.19	2.6
trans-1,2-Dichloroethene	NE	NE	--	< 0.14	< 0.31	< 0.14	< 0.15	0.32
1,2-Dichloroethene	NE	NE	332	< 0.14	0.54	NA	0.19	NA
Tetrachloroethene	27,000	620	1,100	12	86	44	2.0	44
Trichloroethene	1,600	39	240	< 0.14	0.38	0.22	< 0.15	1.4
Vinyl chloride <sup>3</sup>	11,000	65	--	< 0.14	< 0.31	< 0.14	< 0.15	< 0.017

**Footnotes:**

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2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017

Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

<= constituent not detected above noted laboratory method detection limit

> = greater than

-- = not designated

\*D = limit of detection not achievable due to dilution

\*IS = the internal standard quality control limit is exceeded

AF = Attenuation Factor

NE = Criteria Not Established

NA = Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-3	VP-3	VP-3 (DUP)	VP-3	VP-4	VP-4	VP-4	VP-4	
	SAMPLE DATE	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	3/30/2012	10/26/2012	10/26/2012	7/22/2014	3/30/2012	10/26/2012	7/23/2014	7/24/2015
<b>VOC</b>											
cis-1,2-Dichloroethene	NE	NE	0.60	< 0.16	< 0.15	0.58	< 0.15	< 0.15	0.27	0.18 J	
trans-1,2-Dichloroethene	NE	NE	< 0.17	< 0.16	< 0.15	< 0.17	< 0.15	< 0.15	< 0.16	< 0.18	
1,2-Dichloroethene	NE	NE	0.6	< 0.16	< 0.15	0.58	< 0.15	< 0.15	0.27	NA	
Tetrachloroethene	27,000	620	18	3.2	3.8	25	0.68	0.20	< 0.16	0.19	
Trichloroethene	1,600	39	2.0	0.36	0.44	3.6	< 0.15	< 0.15	< 0.16	0.29	
Vinyl chloride <sup>3</sup>	11,000	65	< 0.17	< 0.16	< 0.15	< 0.17	< 0.15	< 0.15	< 0.16	< 0.018	

**Footnotes:**

1 = VALs in accordance with *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>

2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017  
Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

<= constituent not detected above noted laboratory method detection limit

> = greater than

-- = not designated

\*D = limit of detection not achievable due to dilution

\*IS = the internal standard quality control limit is exceeded

AF = Attenuation Factor

NE = Criteria Not Established

NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-5	VP-5	VP-5	VP-6	VP-6	VP-6	VP-6	VP-6	VP-6	VP-6	VP-6
	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	3/30/2012	10/26/2012	7/22/2014	3/30/2012	10/26/2012	4/29/2013	1/29/2014	7/22/2014	7/22/2015	7/20/2016	07/25/2017
<b>VOC</b>													
cis-1,2-Dichloroethene	NE	NE	1.1	26	2.6	28	190	2100	310	1.0	780	< 0.23	< 0.20
trans-1,2-Dichloroethene	NE	NE	< 0.15	0.38	< 0.17	1.7	5.8	82	16	< 0.16	58	< 0.14	< 0.40
1,2-Dichloroethene	NE	NE	1.1	26.38	2.6	29.7	195.8	2182	326	1	NA	NA	NA
Tetrachloroethene	27,000	620	2.1	27	0.59	63	190	2,900	550	< 0.16	470	280	380
Trichloroethene	1,600	39	1.1	22	2.4	20	72	1,100	240	0.34	700	19	10
Vinyl chloride <sup>3</sup>	11,000	65	< 0.15	1.2	0.38	53	23	130	28	< 0.16	30	< 0.20	< 0.16

**Footnotes:**

1 = VALs in accordance with *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>

2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017

Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

<= constituent not detected above noted laboratory method detection limit

> = greater than

-- = not designated

\*D = limit of detection not achievable due to dilution

\*IS = the internal standard quality control limit is exceeded

AF = Attenuation Factor

NE = Criteria Not Established

NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds



Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102	VP-102 DUP
	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	11/25/2011	10/24/2012	1/29/2014	7/23/2014	7/22/2015	7/20/2016	07/25/2017	07/25/2017
<b>VOC</b>										
cis-1,2-Dichloroethene	NE	NE	1,940 *IS	45	0.56	< 0.16	0.24	< 0.46	< 0.39	< 0.39
trans-1,2-Dichloroethene	NE	NE	< 400 *IS*D	< 3.4	< 0.14	< 0.16	< 0.17	< 0.28	< 0.77	< 0.76
1,2-Dichloroethene	NE	NE	1,940	45	0.56	< 0.16	NA	NA	NA	NA
Tetrachloroethene	27,000	620	4,620 *IS	1,200	2	0.17	< 0.17	400	820	810
Trichloroethene	1,600	39	1,770 *IS	240	1.2	< 0.16	0.17	56	75	74
Vinyl chloride <sup>3</sup>	11,000	65	< 400 *IS*D	< 3.4	< 0.14	< 0.16	< 0.017	< 0.42	< 0.30	< 0.30

**Footnotes:**

1 = VALs in accordance with *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>

2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017

Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

<= constituent not detected above noted laboratory method detection limit

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\*D = limit of detection not achievable due to dilution

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AF = Attenuation Factor

NE = Criteria Not Established

NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-114	VP-114	VP-114	VP-114	VP-114
	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	11/25/2011	10/24/2012	7/15/2013	1/29/2014	7/23/2014
<b>VOC</b>							
cis-1,2-Dichloroethene	NE	NE	< 400 *IS*D	< 0.16	< 0.15	< 0.14	< 0.16
trans-1,2-Dichloroethene	NE	NE	< 400 *IS*D	< 0.16	< 0.15	< 0.14	< 0.16
1,2-Dichloroethene	NE	NE	< 400	< 0.16	< 0.15	< 0.14	< 0.16
Tetrachloroethene	27,000	620	2,540 *IS	10	24	< 0.14	2.9
Trichloroethene	1,600	39	< 400 *IS*D	< 0.16	< 0.15	< 0.14	< 0.16
Vinyl chloride <sup>3</sup>	11,000	65	< 400 *IS*D	< 0.16	< 0.15	< 0.14	< 0.16

**Footnotes:**

1 = VALs in accordance with *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>

2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017

Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

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\*D = limit of detection not achievable due to dilution

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AF = Attenuation Factor

NE = Criteria Not Established

NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-126	VP-126	VP-126	VP-126	VP-126	VP-126	VP-126	VP-126 (DUP)
	SAMPLE DATE	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	11/25/2011	10/24/2012	7/15/2013	1/29/2014	7/23/2014	7/24/2015	7/20/2016
<b>VOC</b>										
cis-1,2-Dichloroethene	NE	NE	< 200 *D	< 0.16	< 0.16	< 0.14	< 0.17	< 0.17	< 0.22	< 0.24
trans-1,2-Dichloroethene	NE	NE	< 200 *D	< 0.16	< 0.16	< 0.14	< 0.17	< 0.17	< 0.13	< 0.14
1,2-Dichloroethene	NE	NE	< 200	< 0.16	< 0.16	< 0.14	< 0.17	NA	NA	NA
Tetrachloroethene	27,000	620	452	1.4	4.4	< 0.14	0.48	0.75	< 0.16	< 0.17
Trichloroethene	1,600	39	< 200 *D	< 0.16	< 0.16	< 0.14	< 0.17	< 0.17	< 0.25	< 0.27
Vinyl chloride <sup>3</sup>	11,000	65	< 200 *D	< 0.16	< 0.16	< 0.14	< 0.17	< 0.017	< 0.20	< 0.21

**Footnotes:**

1 = VALs in accordance with *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>

2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017  
Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

<= constituent not detected above noted laboratory method detection limit

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\*D = limit of detection not achievable due to dilution

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NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION SAMPLE DATE	DEEP SOIL GAS		VP-202	VP-202	VP-202	VP-202
	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	11/25/2011	10/24/2012	7/16/2013	1/30/2014
<b>VOC</b>						
cis-1,2-Dichloroethene	NE	NE	< 0.085 *IS	< 0.16	< 0.16	< 0.14
trans-1,2-Dichloroethene	NE	NE	< 0.085 *IS	< 0.16	< 0.16	< 0.14
1,2-Dichloroethene	NE	NE	< 0.085	< 0.16	< 0.16	< 0.14
Tetrachloroethene	27,000	620	5.7 *IS	9.1	8	1.5
Trichloroethene	1,600	39	< 0.085 *IS	0.58	< 0.16	< 0.14
Vinyl chloride <sup>3</sup>	11,000	65	< 0.085 *IS	< 0.16	< 0.16	< 0.14

**Footnotes:**

1 = VALs in accordance with *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>

2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017  
Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

<= constituent not detected above noted laboratory method detection limit

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\*D = limit of detection not achievable due to dilution

\*IS = the internal standard quality control limit is exceeded

AF = Attenuation Factor

NE = Criteria Not Established

NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-210	VP-210	VP-210	VP-210	VP-210	VP-210	VP-210	VP-210	
	SAMPLE DATE	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	11/25/2011	10/25/2012	7/16/2013	1/30/2014	7/23/2014	7/24/2015	7/22/2016	07/25/2017
<b>VOC</b>											
cis-1,2-Dichloroethene	NE	NE	< 0.085 *IS	< 0.17	< 0.15	< 0.14	< 0.17	< 0.17	< 0.17	< 0.23	< 0.095
trans-1,2-Dichloroethene	NE	NE	< 0.085 *IS	< 0.17	< 0.15	< 0.14	< 0.17	< 0.17	< 0.17	< 0.14	< 0.19
1,2-Dichloroethene	NE	NE	< 0.085	< 0.17	< 0.15	< 0.14	< 0.17	NA	NA	NA	NA
Tetrachloroethene	27,000	620	3.22	3.9	3.6	< 0.14	5.4	5.2	5.1	5.1	7.8
Trichloroethene	1,600	39	< 0.085 *IS	< 0.17	0.26	< 0.14	< 0.17	< 0.17	< 0.17	< 0.26	< 0.12
Vinyl chloride <sup>3</sup>	11,000	65	< 0.085 *IS	< 0.17	< 0.15	< 0.14	< 0.17	< 0.17	< 0.017	< 0.21	< 0.074

**Footnotes:**

1 = VALs in accordance with *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>

2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017  
Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

<= constituent not detected above noted laboratory method detection limit

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\*D = limit of detection not achievable due to dilution

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AF = Attenuation Factor

NE = Criteria Not Established

NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-222	VP-222	VP-222	VP-222	VP-222
	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	11/25/2011	10/25/2012	7/16/2013	1/30/2014	7/23/2014
<b>VOC</b>							
cis-1,2-Dichloroethene	NE	NE	< 20 *D	< 0.49	< 0.92	< 0.14	< 0.89
trans-1,2-Dichloroethene	NE	NE	< 20 *D	< 0.49	< 0.92	< 0.14	< 0.89
1,2-Dichloroethene	NE	NE	< 20	< 0.49	< 0.92	< 0.14	< 0.89
Tetrachloroethene	27,000	620	77	120	280	22	150
Trichloroethene	1,600	39	< 20 *D	< 0.49	< 0.92	< 0.14	< 0.89
Vinyl chloride <sup>3</sup>	11,000	65	< 20 *D	< 0.49	< 0.92	< 0.14	< 0.89

**Footnotes:**

1 = VALs in accordance with *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>

2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017  
Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

<= constituent not detected above noted laboratory method detection limit

> = greater than

-- = not designated

\*D = limit of detection not achievable due to dilution

\*IS = the internal standard quality control limit is exceeded

AF = Attenuation Factor

NE = Criteria Not Established

NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-237	VP-237	VP-237	VP-237	VP-237	VP-237	VP-249	VP-249	VP-249
	SAMPLE DATE	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	11/25/2011	10/25/2012	7/17/2013	1/30/2014	7/23/2014	7/24/2015	11/25/2011	10/25/2012
<b>VOC</b>											
cis-1,2-Dichloroethene	NE	NE	< 20	< 0.16	< 0.16	< 0.14	< 0.33	< 0.17	< 0.085	< 0.16	< 0.14
trans-1,2-Dichloroethene	NE	NE	< 20	< 0.16	< 0.16	< 0.14	< 0.33	< 0.17	< 0.085	< 0.16	< 0.14
1,2-Dichloroethene	NE	NE	< 20	< 0.16	< 0.16	< 0.14	< 0.33	NA	< 0.085	< 0.16	< 0.14
Tetrachloroethene	27,000	620	53	63	30	3.6	59	43	8.44	23	3.3
Trichloroethene	1,600	39	< 20	< 0.16	< 0.16	< 0.14	< 0.33	< 0.17	< 0.085	< 0.16	< 0.14
Vinyl chloride <sup>3</sup>	11,000	65	< 20	< 0.16	< 0.16	< 0.14	< 0.33	< 0.017	< 0.085	< 0.16	< 0.14

**Footnotes:**

1 = VALs in accordance with *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>

2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017  
Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

<= constituent not detected above noted laboratory method detection limit

> = greater than

-- = not designated

\*D = limit of detection not achievable due to dilution

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AF = Attenuation Factor

NE = Criteria Not Established

NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 20  
Soil Gas Analytical Results Summary  
Madison-Kipp Corporation  
Madison, Wisconsin

SAMPLE LOCATION	DEEP SOIL GAS		VP-261	VP-261	VP-261	VP-261	VP-261	VP-261
	NON-RES. <sup>1,2</sup>	RES. <sup>1,2</sup>	11/28/2011	7/17/2013	1/30/2014	7/23/2014	7/23/2014	7/24/2015
<b>VOC</b>								
cis-1,2-Dichloroethene	NE	NE	< 0.085 *IS	< 0.15	< 0.13	< 0.16	< 0.16	< 0.17
trans-1,2-Dichloroethene	NE	NE	< 0.085 *IS	< 0.15	< 0.13	< 0.16	< 0.16	< 0.17
1,2-Dichloroethene	NE	NE	< 0.085	< 0.15	< 0.13	< 0.16	< 0.16	NA
Tetrachloroethene	27,000	620	< 0.085 *IS	1.2	1.2	5.0	4.3	15
Trichloroethene	1,600	39	< 0.085 *IS	< 0.15	< 0.13	< 0.16	< 0.16	< 0.17
Vinyl chloride <sup>3</sup>	11,000	65	< 0.085 *IS	< 0.15	< 0.13	< 0.16	< 0.16	< 0.17

**Footnotes:**

1 = VALs in accordance with *Addressing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin*, <http://dnr.wi.gov/files/PDF/pubs/rrr/RR800.pdf>

2 = Non-Res. Deep Soil Gas VAL used 0.001 AF; Res. Deep Soil Gas VAL used 0.01 AF

3 = Vinyl chloride was analyzed using the modified EPA Method TO-15 GC/MS SIM for the July 22, 2015 and July 24, 2015 monitoring event. For monitoring points where no detection was present, the concentration is noted less than the reporting limit.

Updated By: P. Popp 9/13/2017

Checked By: A. Stehn 9/14/2017

**Notes:**

All concentrations presented in this table are reported in parts per billion by volume (ppbv) unless otherwise noted.

Res./Non-Res. VAL provided for comparison purposes.

VP-3 through VP-6 compared to Non-Res. Deep Soil Gas VAL due to probe location (large commercial/industrial building, >5 feet below nearest building foundation).

100	= exceeds Wisconsin Res. Deep Soil Gas VAL with 0.01 AF
100	= exceeds Wisconsin Non-Res. Deep Soil Gas VAL with 0.001 AF

<= constituent not detected above noted laboratory method detection limit

> = greater than

-- = not designated

\*D = limit of detection not achievable due to dilution

\*IS = the internal standard quality control limit is exceeded

AF = Attenuation Factor

NE = Criteria Not Established

NA= Not Analyzed

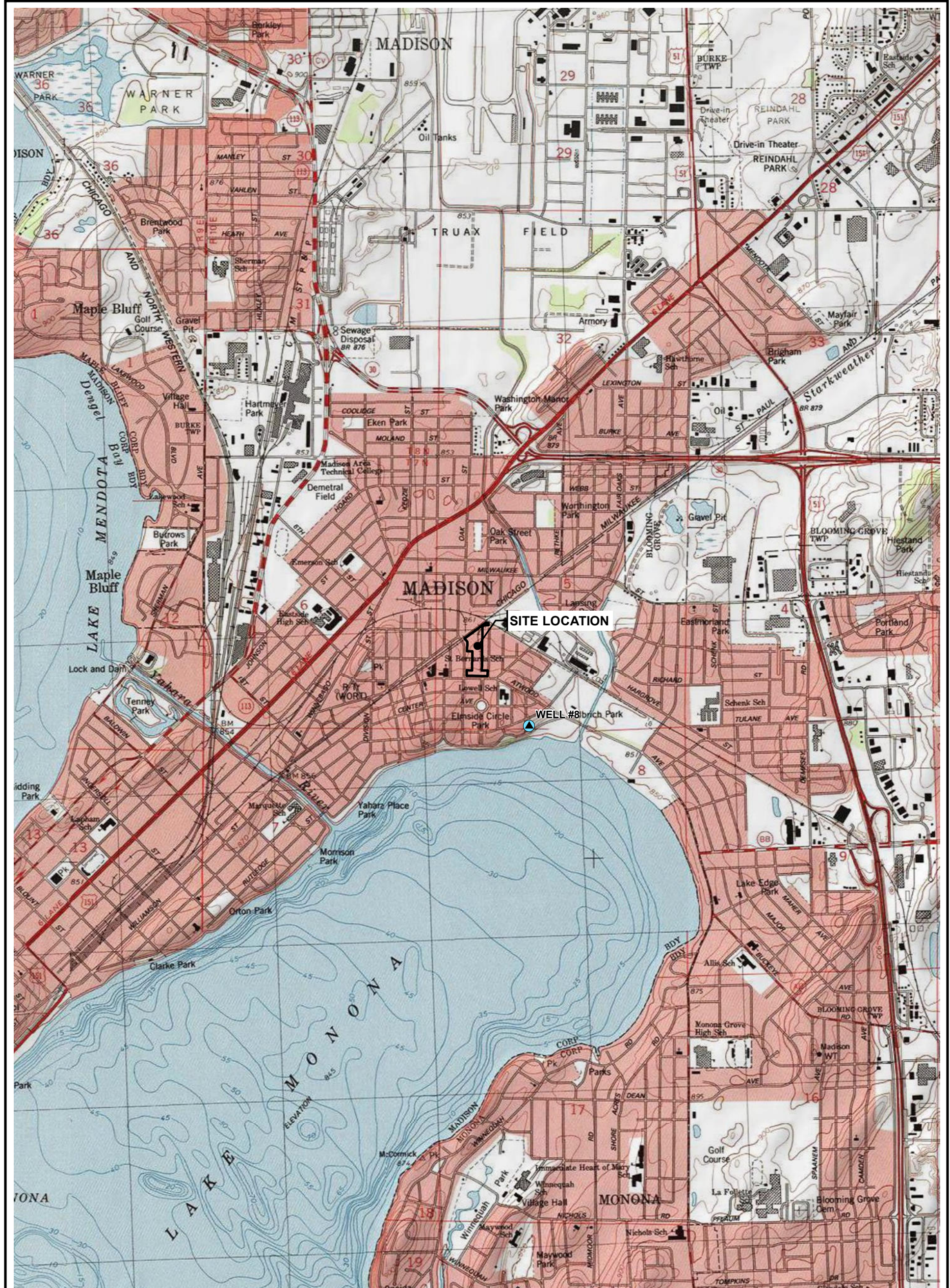
DUP = Duplicate sample collected

Res. = Residential



VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

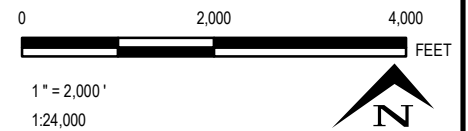




**LEGEND**

-  SITE PROPERTY BOUNDARY
-  MUNICIPAL SUPPLY WELL

BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES, "USA TOPO MAPS" WEB BASEMAP SERVICE LAYER.




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 Madison, WI 53717  
 Phone: 608.826.3600

PROJECT: **MADISON-KIPP CORPORATION**  
 201 WAUBESA STREET  
 MADISON, WISCONSIN

TITLE: **SITE LOCATION MAP**

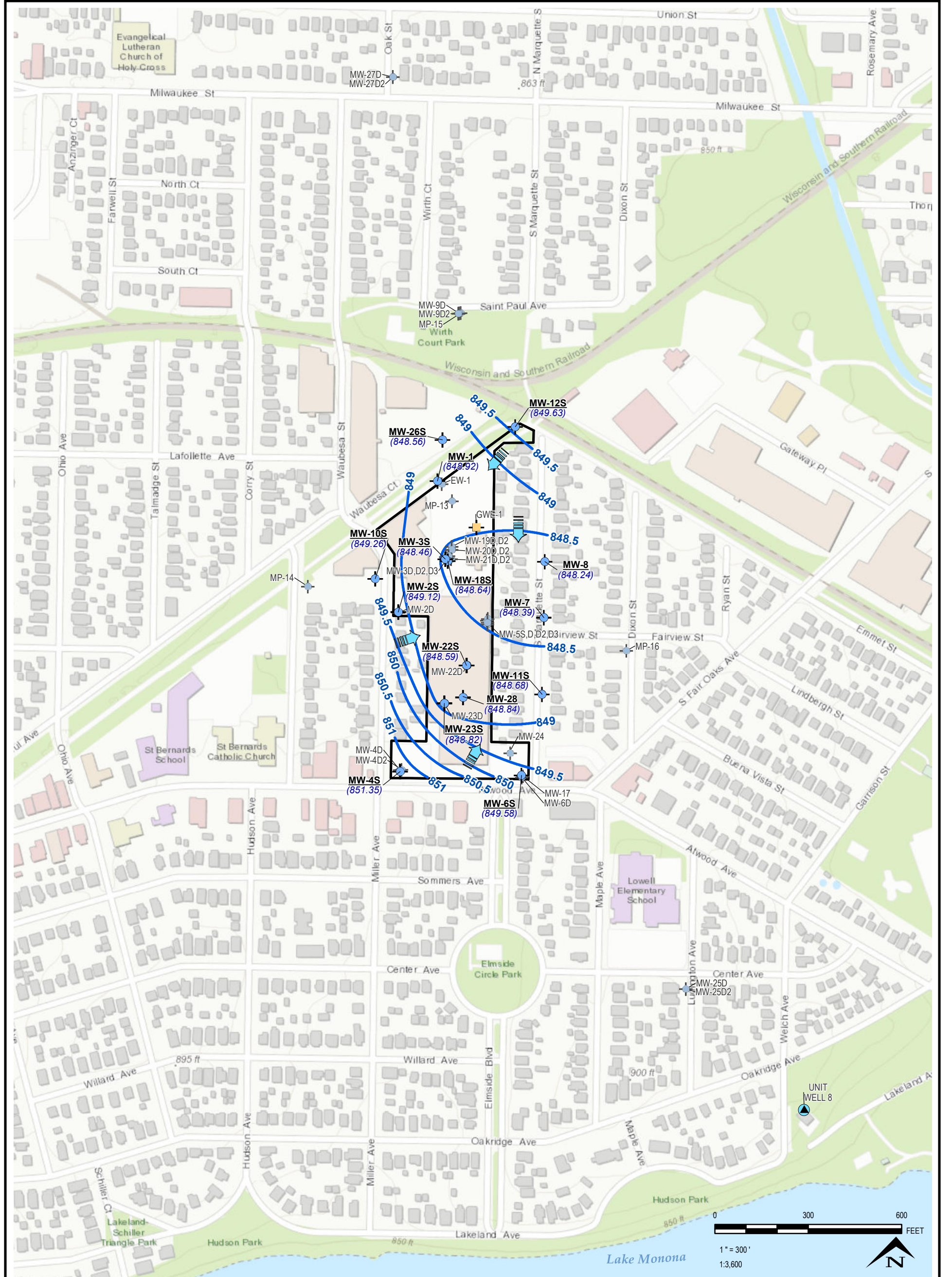
DRAWN BY: B. DEEGAN  
 CHECKED BY: S. SELLWOOD  
 APPROVED BY: K. VATER  
 DATE: FEBRUARY 2018  
 PROJ. NO.: 266431.0004  
 FILE: 266431-2017S2-001.mxd

**FIGURE 1**









**LEGEND**

- SITE PROPERTY BOUNDARY
- MONITORING WELL
- GROUNDWATER EXTRACTION WELL
- MUNICIPAL SUPPLY WELL

**NOTES**

- GROUNDWATER ELEVATION CONTOUR (0.5' INTERVAL, DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION

1. BASE MAP FROM ESRI, "WORLD TOPOGRAPHIC MAP", WEB BASEMAP SERVICE LAYER.
2. THE WATER TABLE LIES WITHIN UNCONSOLIDATED SEDIMENTS WHICH ARE PRESENT TO A DEPTH OF APPROXIMATELY 35 FT BELOW GROUND SURFACE (835 FT ABOVE MEAN SEA LEVEL).
3. WELLS SHOWN IN GRAY ARE NOT PART OF THIS GROUNDWATER UNIT.
4. GROUNDWATER ELEVATIONS MEASURED OCTOBER 02, 2017.
5. MW-1 NOT USED FOR CONTOURING.



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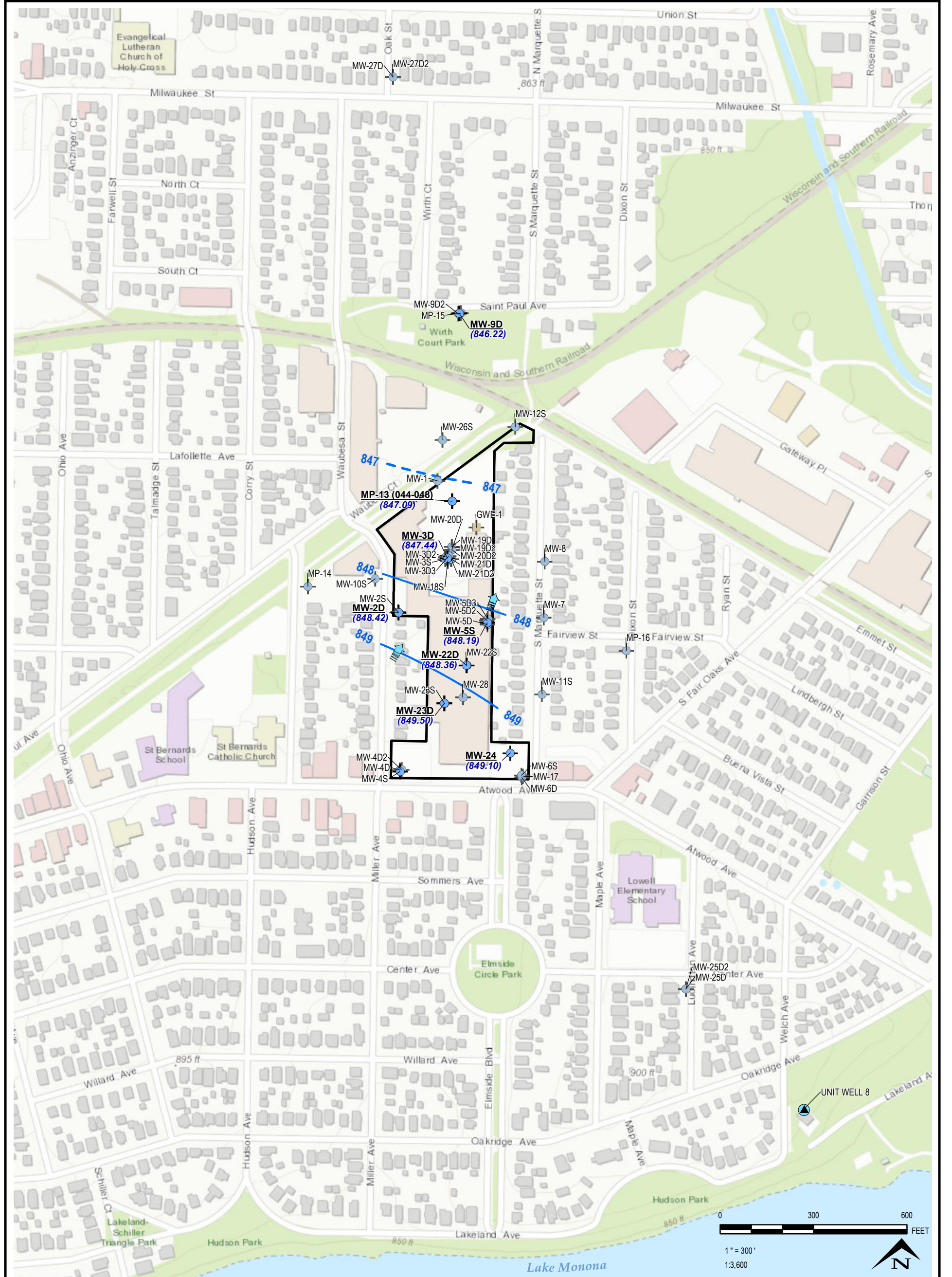
PROJECT: **MADISON-KIPP CORPORATION**  
 201 WAUBESA STREET  
 MADISON, WISCONSIN

TITLE: **WATER TABLE ELEVATIONS**  
**OCTOBER 2017**

DRAWN BY: B. DEEGAN  
 CHECKED BY: S. SELLWOOD  
 APPROVED BY: K. VATER  
 DATE: FEBRUARY 2018  
 PROJ. NO.: 266431.0004  
 FILE: 266431-2017S2-003.mxd

**FIGURE 3**





**LEGEND**

- SITE PROPERTY BOUNDARY
- MONITORING WELL
- GROUNDWATER EXTRACTION WELL
- MUNICIPAL SUPPLY WELL
- GROUNDWATER ELEVATION CONTOUR (1' INTERVAL, DASHED WHERE INFERRED)
- GROUNDWATER FLOW

**NOTES**

1. BASE MAP IMAGERY FROM, "WORLD TOPOGRAPHIC MAP" WEB BASEMAP SERVICE LAYER.
2. THE UPPER LONE ROCK FORMATION IS INTERPRETED TO BE APPROXIMATELY 35-60 FEET BELOW GROUND SURFACE (835-810 FEET ABOVE MEAN SEA LEVEL).
3. WELLS SHOWN IN GRAY ARE NOT PART OF THIS GROUND WATER UNIT.
4. GROUNDWATER ELEVATIONS MEASURED OCTOBER 02, 2017.



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PROJECT:

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 201 WAUBESA STREET  
 MADISON, WISCONSIN

TITLE:

**UPPER LONE ROCK FORMATION  
 POTENTIOMETRIC SURFACE  
 OCTOBER 2017**

DRAWN BY: B. DEEGAN

CHECKED BY: S. SELLWOOD

APPROVED BY: K. VATER

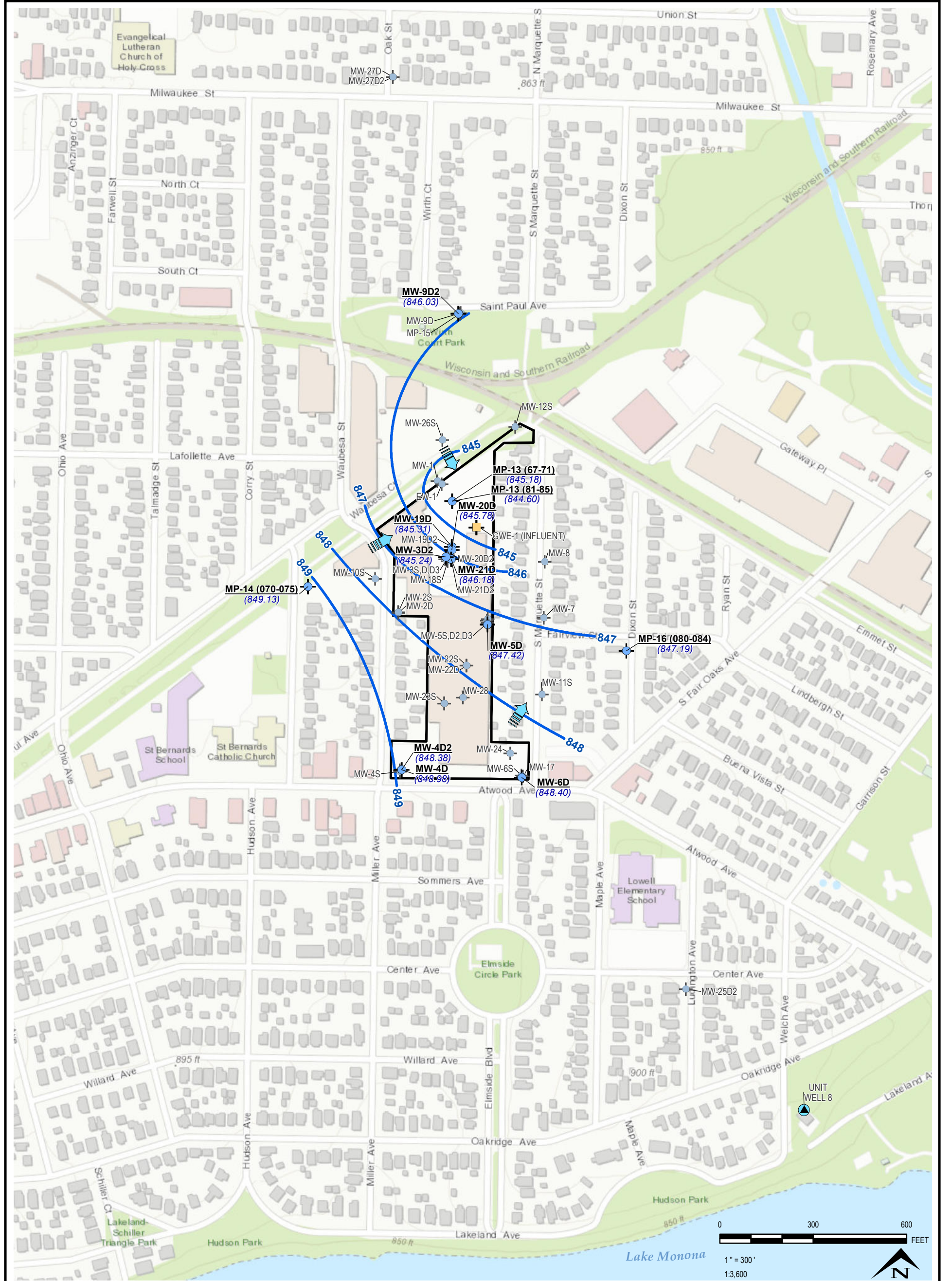
DATE: FEBRUARY 2018

PROJ. NO.: 266431.0004

FILE: 266431-2017S2-004.mxd

**FIGURE 4**





**LEGEND**

- SITE PROPERTY BOUNDARY
- MONITORING WELL
- GROUNDWATER EXTRACTION WELL
- MUNICIPAL SUPPLY WELL
- GROUNDWATER ELEVATION CONTOUR (1' FT INTERVAL, DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION

**NOTES**

1. BASE MAP FROM ESRI, "WORLD TOPOGRAPHIC MAP", WEB BASEMAP SERVICE LAYER.
2. THE LOWER LONE ROCK FORMATION IS INTERPRETED TO BE FROM APPROXIMATELY 60 -100 FEET BELOW GROUND SURFACE (810 -770 FEET ABOVE MEAN SEA LEVEL).
3. WELLS SHOWN IN GRAY ARE NOT PART OF THIS GROUNDWATER UNIT.
4. GROUNDWATER ELEVATIONS MEASURED OCTOBER 02, 2017.
5. MW-4D2, MP-13 (67-71), MW-3D2 NOT USED FOR CONTOURING.



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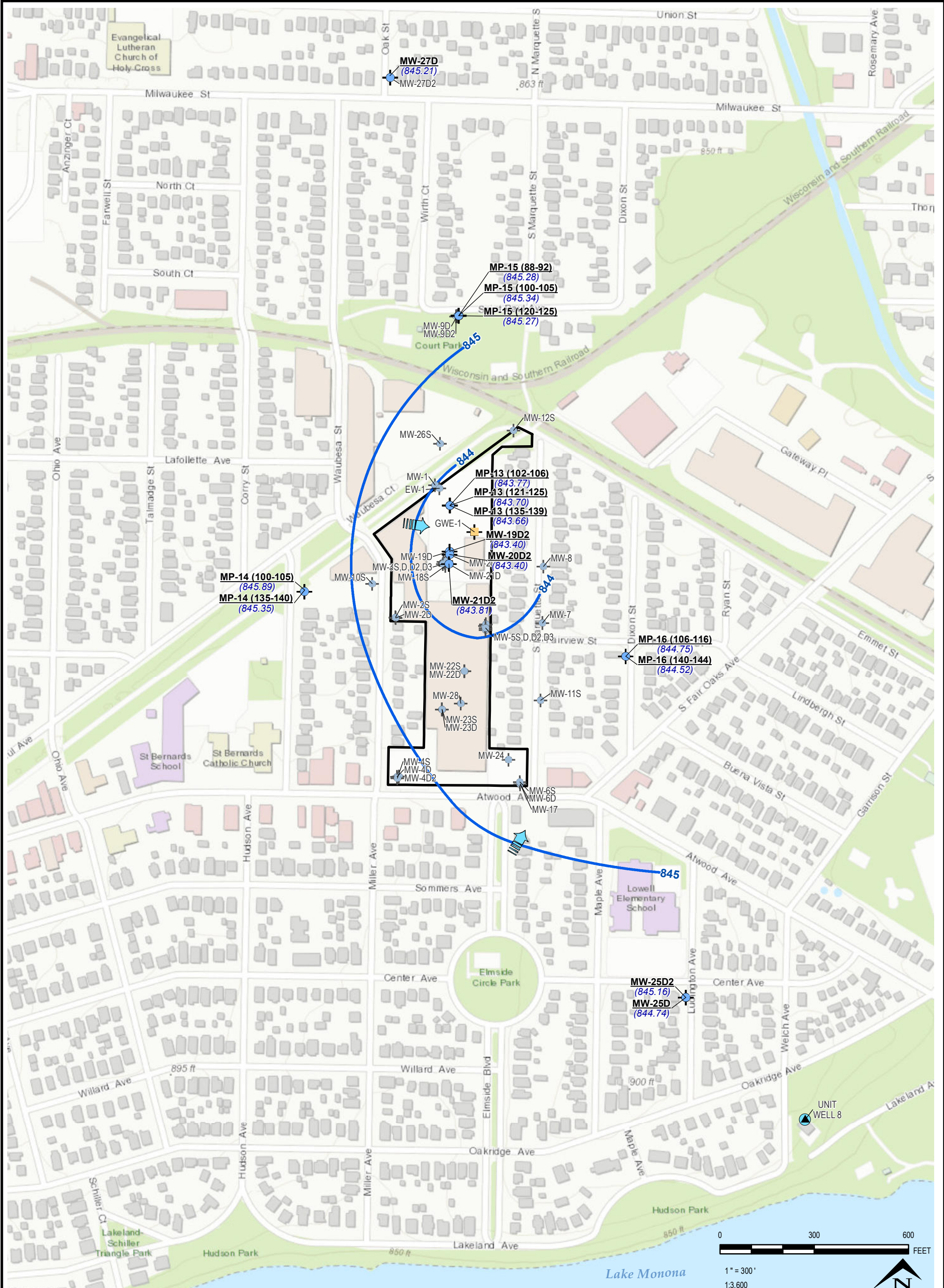
PROJECT: **MADISON-KIPP CORPORATION**  
 201 WAUBESA STREET  
 MADISON, WISCONSIN

TITLE: **LOWER LONE ROCK FORMATION  
 POTENTIOMETRIC SURFACE  
 OCTOBER 2017**

DRAWN BY:	B. DEEGAN
CHECKED BY:	S. SELLWOOD
APPROVED BY:	K. VATER
DATE:	FEBRUARY 2018
PROJ. NO.:	266431.0004
FILE:	266431-2017S2-005.mxd

**FIGURE 5**





**LEGEND**

- SITE PROPERTY BOUNDARY
- GROUNDWATER EXTRACTION WELL
- MONITORING WELL
- MUNICIPAL SUPPLY WELL

- GROUNDWATER ELEVATION CONTOUR (1' FT INTERVAL, DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION

**NOTES**

1. BASE MAP FROM ESRI, "WORLD TOPOGRAPHIC MAP", WEB BASEMAP SERVICE LAYER.
2. THE UPPER WONEWOC FORMATION IS INTERPRETED TO BE FROM APPROXIMATELY 100-155 FEET BELOW GROUND SURFACE (770 -715 FEET ABOVE MEAN SEA LEVEL) .
3. WELLS SHOWN IN GRAY ARE NOT PART OF THIS GROUNDWATER UNIT.
4. GROUNDWATER ELEVATIONS MEASURED OCTOBER 02, 2017.
5. MW-25D NOT USED FOR CONTOURING.



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PROJECT:

**MADISON-KIPP CORPORATION  
 201 WAUBESA STREET  
 MADISON, WISCONSIN**

TITLE:

**UPPER WONEWOC FORMATION  
 POTENTIOMETRIC SURFACE  
 OCTOBER 2017**

DRAWN BY:

B. DEEGAN

CHECKED BY:

S. SELLWOOD

APPROVED BY:

K. VATER

DATE:

FEBRUARY 2018

PROJ. NO.:

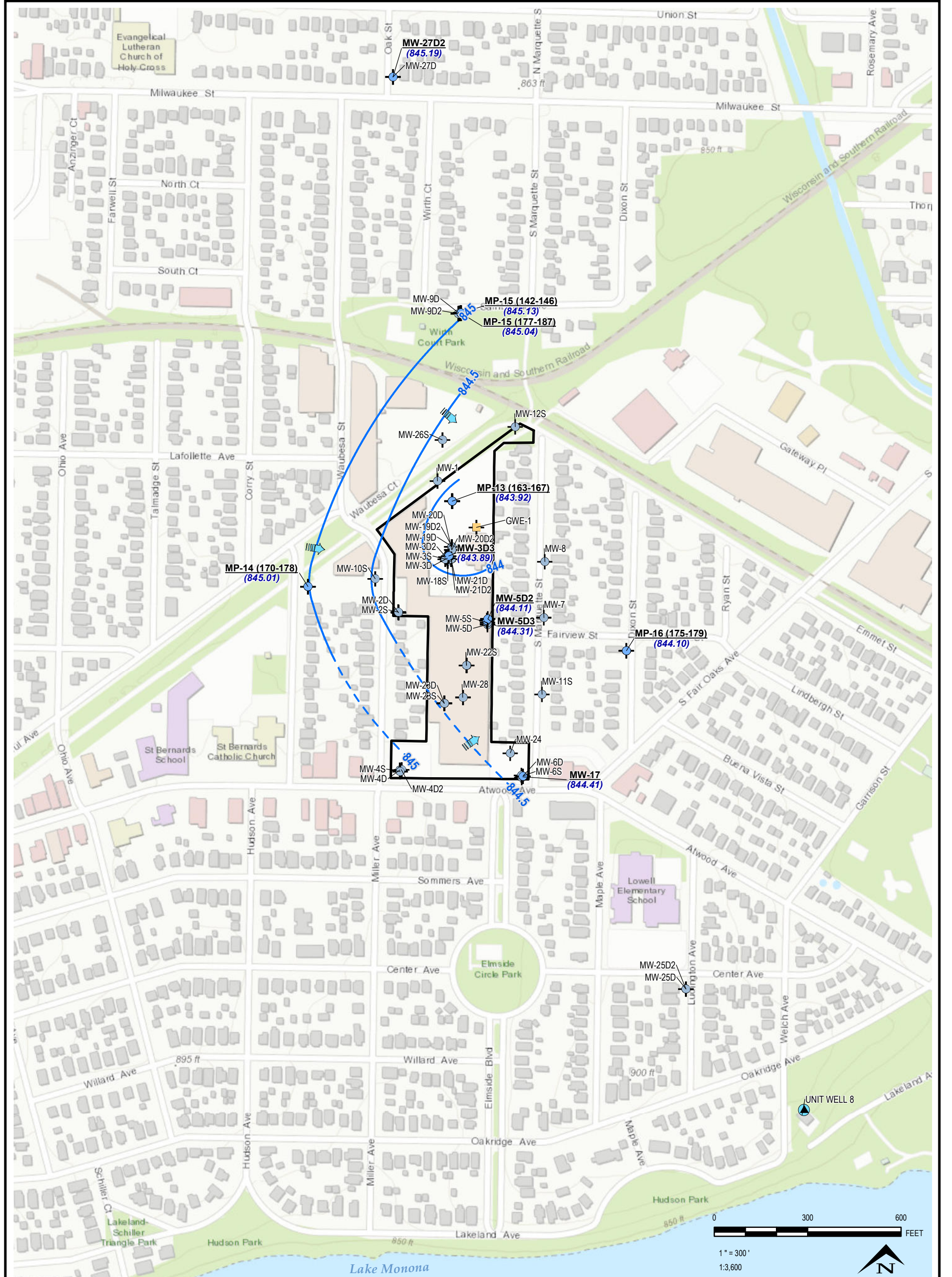
266431.0004

FILE:

266431-2017S2-006.mxd

**FIGURE 6**





**LEGEND**

- SITE PROPERTY BOUNDARY
- MONITORING WELL
- GROUNDWATER EXTRACTION WELL
- MUNICIPAL SUPPLY WELL

- GROUNDWATER ELEVATION CONTOUR (0.5' INTERVAL, DASHED WHERE INFERRED)
- GROUNDWATER FLOW

**NOTES**

1. BASE MAP IMAGERY FROM ESRI, "WORLD TOPOGRAPHIC MAP" WEB BASEMAP SERVICE LAYER.
2. THE LOWER WONEWOC FORMATION IS INTERPRETED TO BE FROM APPROXIMATELY 155 - 240 FEET BELOW GROUND SURFACE (715 - 630 FEET ABOVE MEAN SEA LEVEL).
3. WELLS SHOWN IN GRAY ARE NOT PART OF THIS GROUNDWATER UNIT.
4. GROUNDWATER ELEVATIONS MEASURED OCTOBER 02, 2017.



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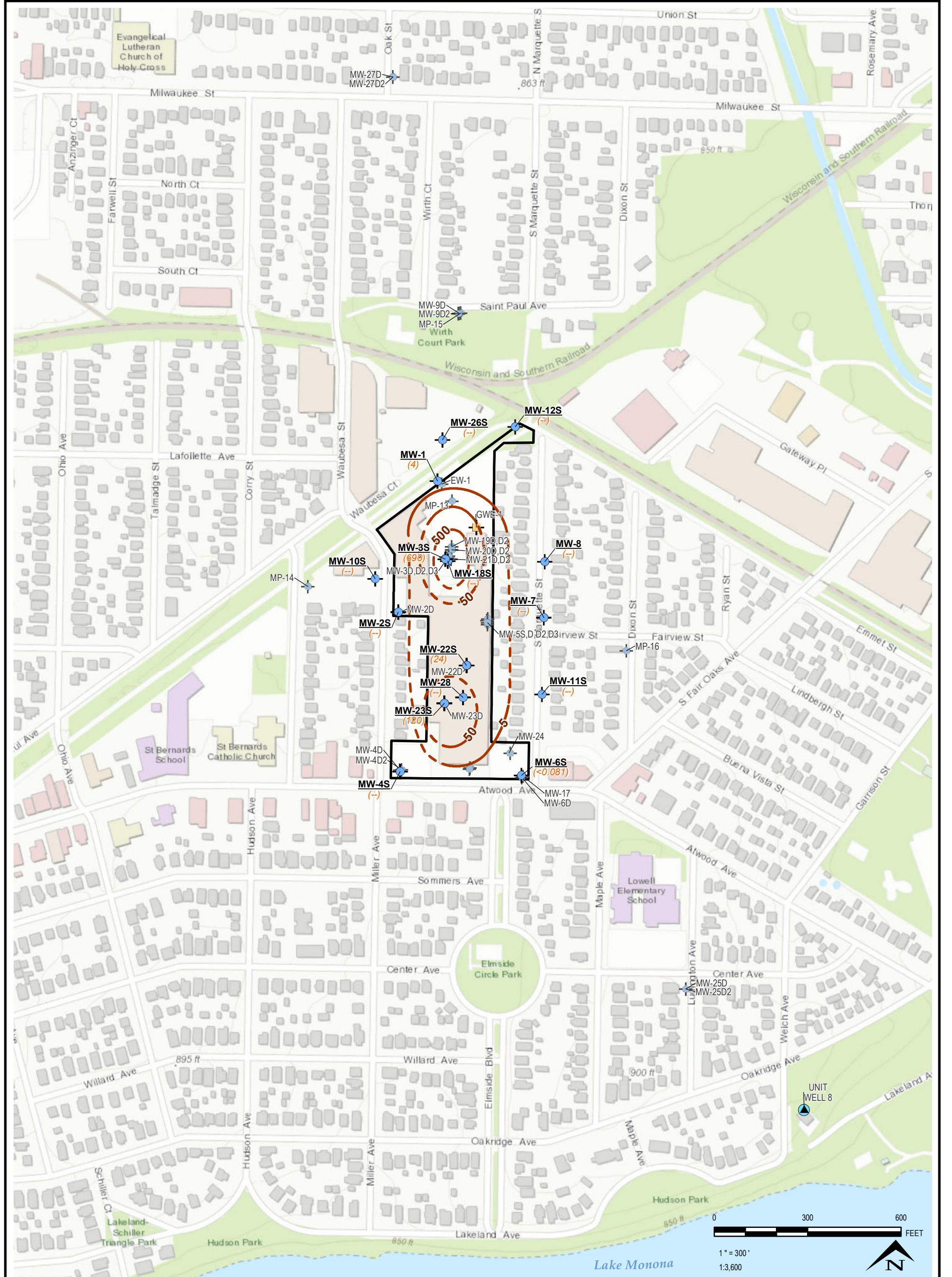
PROJECT: **MADISON-KIPP CORPORATION**  
 201 WAUBESA STREET  
 MADISON, WISCONSIN

TITLE: **LOWER WONEWOC FORMATION**  
**POTENTIOMETRIC SURFACE**  
**OCTOBER 2017**

DRAWN BY: B. DEEGAN  
 CHECKED BY: S. SELLWOOD  
 APPROVED BY: K. VATER  
 DATE: FEBRUARY 2018  
 PROJ. NO.: 266431.0004  
 FILE: 266431-2017S2-007.mxd

**FIGURE 8**





**LEGEND**

- SITE PROPERTY BOUNDARY
- MONITORING WELL
- GROUNDWATER EXTRACTION WELL
- MUNICIPAL SUPPLY WELL

- (7.5) PCE CONCENTRATION [µg/L]
- (-) NOT SAMPLED
- PCE ISOCONCENTRATION CONTOUR (µg/L, DASHED WHERE INFERRED)

**NOTES**

1. BASE MAP FROM ESRI, "WORLD TOPOGRAPHIC MAP", WEB BASEMAP SERVICE LAYER.
2. THE WATER TABLE LIES WITHIN UNCONSOLIDATED SEDIMENTS WHICH ARE PRESENT TO A DEPTH OF APPROXIMATELY 35 FT BELOW GROUND SURFACE (835 FT ABOVE MEAN SEA LEVEL).
3. WELLS SHOWN IN GRAY ARE NOT PART OF THIS GROUNDWATER UNIT.
4. WELLS SAMPLED 10/02/2017-10/12/2017.
5. DATA QUALIFIERS NOT INCLUDED, SEE TABLES OR LABORATORY REPORTS.



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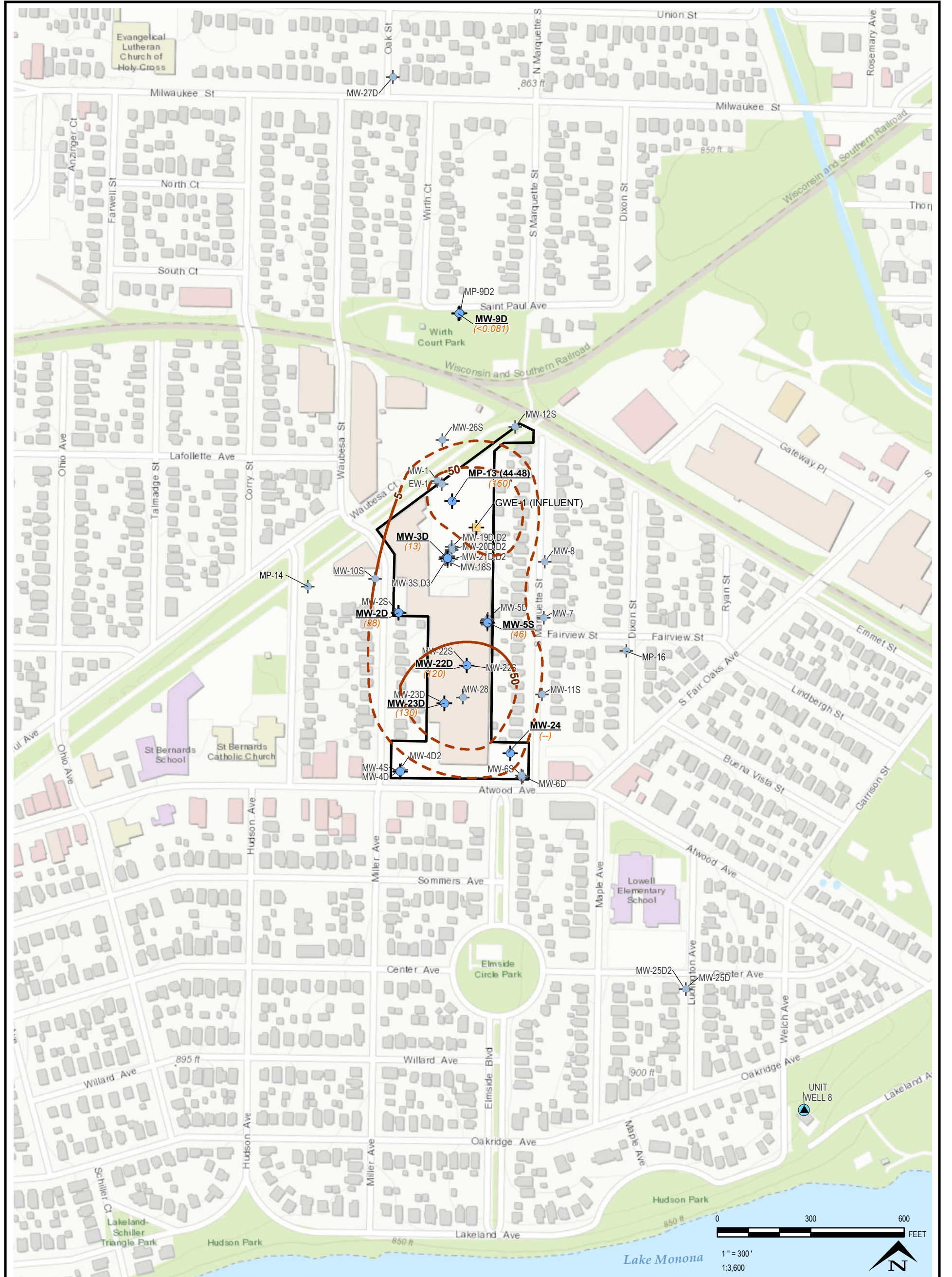
PROJECT: **MADISON-KIPP CORPORATION**  
 201 WAUBESA STREET  
 MADISON, WISCONSIN

TITLE: **WATER TABLE**  
**TETRACHLOROETHENE (PCE) ISOCONCENTRATIONS**  
**OCTOBER 2017**

DRAWN BY:	B. DEEGAN
CHECKED BY:	S. SELLWOOD
APPROVED BY:	K. VATER
DATE:	FEBRUARY 2018
PROJ. NO.:	266431.0004
FILE:	266431-2017S2-008.mxd

**FIGURE 8**





**LEGEND**

- SITE PROPERTY BOUNDARY
- MONITORING WELL
- GROUNDWATER EXTRACTION WELL
- MUNICIPAL SUPPLY WELL
- (7.5) PCE CONCENTRATION [ $\mu\text{g/L}$ ]
- (-) NOT SAMPLED
- PCE ISOCONCENTRATION CONTOUR ( $\mu\text{g/L}$ , DASHED WHERE INFERRED)

**NOTES**

1. BASE MAP FROM ESRI, "WORLD TOPOGRAPHIC MAP", WEB BASEMAP SERVICE LAYER.
2. THE UPPER LONE ROCK FORMATION IS INTERPRETED TO BE FROM APPROXIMATELY 35-60 FEET BELOW GROUND SURFACE (835-810 FEET ABOVE MEAN SEA LEVEL).
3. WELLS SHOWN IN GRAY ARE NOT PART OF THIS GROUNDWATER UNIT.
4. WELLS SAMPLED 10/02/2017 - 10/12/2017.
5. DATA QUALIFIERS NOT INCLUDED, SEE TABLES OR LABORATORY REPORTS.



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 Phone: 608.826.3600

PROJECT:

**MADISON-KIPP CORPORATION**  
 201 WAUBESA STREET  
 MADISON, WISCONSIN

TITLE:

**UPPER LONE ROCK FORMATION**  
**TETRACHLOROETHENE (PCE) ISOCONCENTRATIONS**  
**OCTOBER 2017**

DRAWN BY:

B. DEEGAN

CHECKED BY:

S. SELLWOOD

APPROVED BY:

K. VATER

DATE:

FEBRUARY 2018

PROJ. NO.:

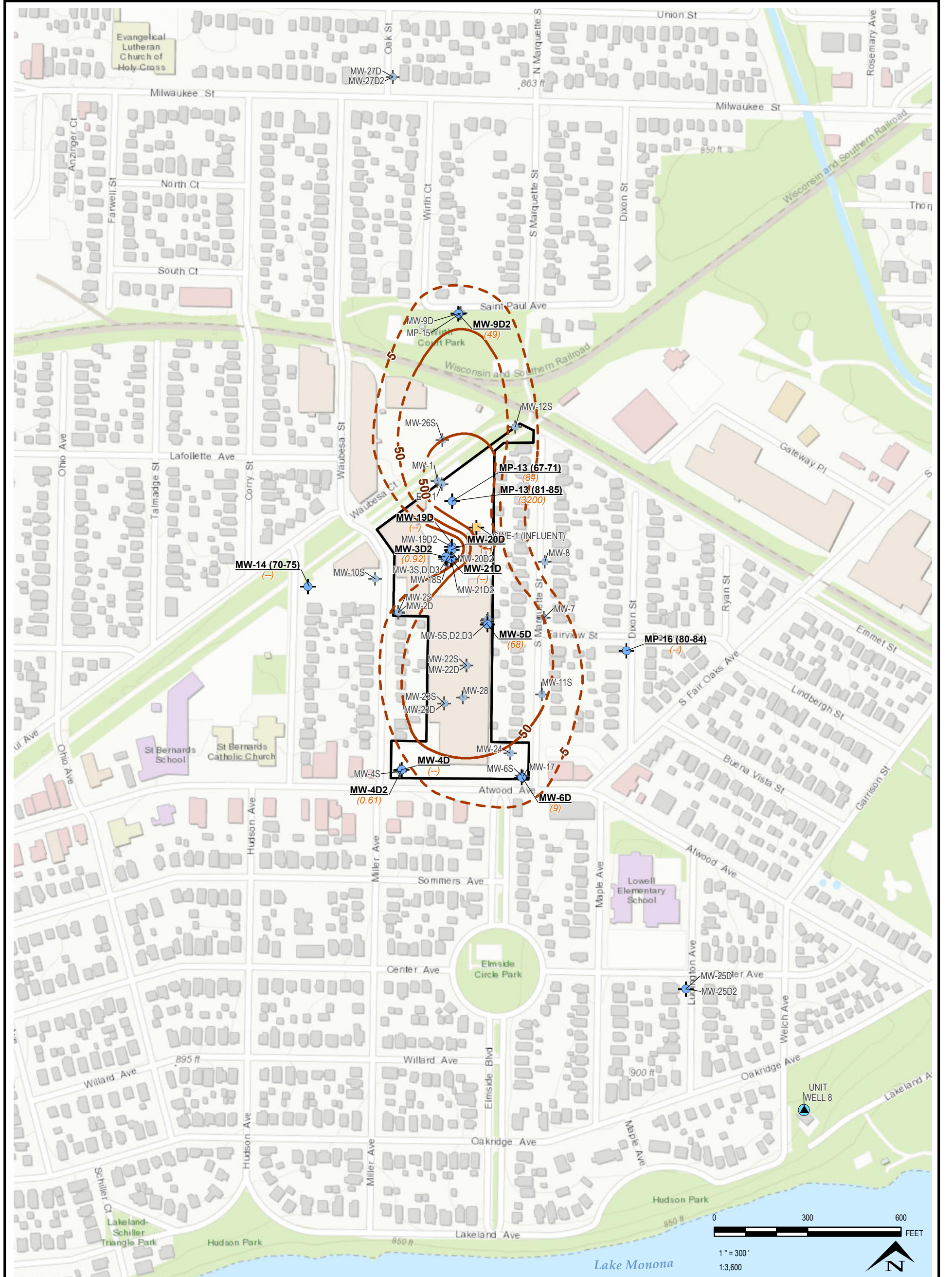
266431.0004

FILE:

266431-2017S2-009.mxd

**FIGURE 9**





**LEGEND**

- SITE PROPERTY BOUNDARY
- MONITORING WELL
- GROUNDWATER EXTRACTION WELL
- MUNICIPAL SUPPLY WELL
- (7.5) PCE CONCENTRATION [ $\mu\text{g/L}$ ]
- (--) NOT SAMPLED
- PCE ISOCONCENTRATION CONTOUR ( $\mu\text{g/L}$ , DASHED WHERE INFERRED)

**NOTES**

1. BASE MAP FROM ESRI, "WORLD TOPOGRAPHIC MAP", WEB BASEMAP SERVICE LAYER.
2. THE LOWER LONE ROCK FORMATION IS INTERPRETED TO BE FROM APPROXIMATELY 60 – 100 FEET BELOW GROUND SURFACE (810-770 FEET ABOVE MEAN SEA LEVEL).
3. WELLS SHOWN IN GRAY ARE NOT PART OF THIS GROUNDWATER UNIT.
4. WELLS SAMPLED 10/02/2017 – 10/12/2017.
5. DATA QUALIFIERS NOT INCLUDED, SEE TABLES OR LABORATORY REPORTS.



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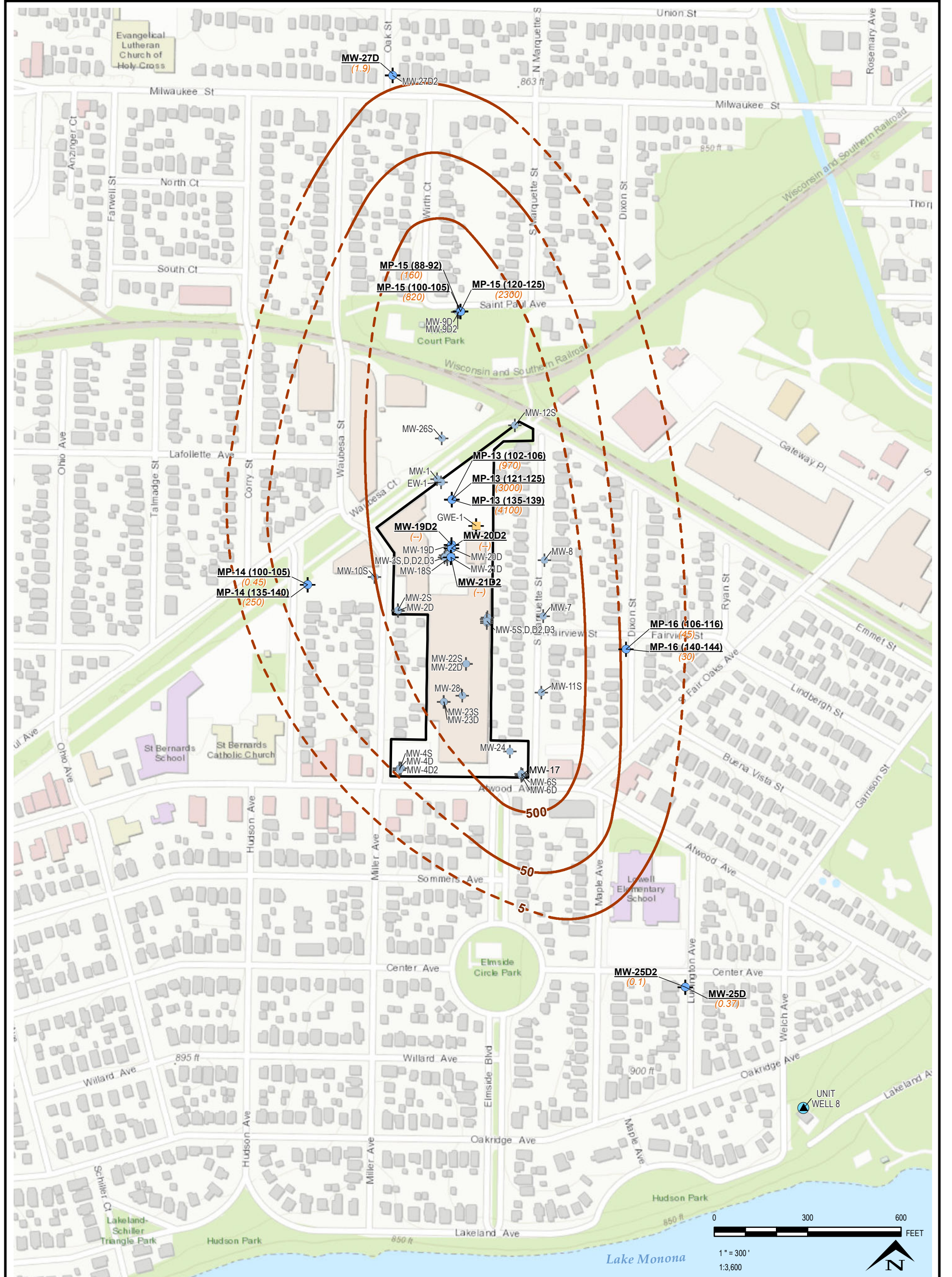
PROJECT: **MADISON-KIPP CORPORATION**  
 201 WAUBESA STREET  
 MADISON, WISCONSIN

TITLE: **LOWER LONE ROCK FORMATION**  
**TETRACHLOROETHENE (PCE) ISOCONCENTRATIONS**  
**OCTOBER 2017**

DRAWN BY: B. DEEGAN  
 CHECKED BY: S. SELLWOOD  
 APPROVED BY: K. VATER  
 DATE: FEBRUARY 2018  
 PROJ. NO.: 266431.0004  
 FILE: 266431-2017S2-010.mxd

**FIGURE 10**





**LEGEND**

- SITE PROPERTY BOUNDARY
- GROUNDWATER EXTRACTION WELL
- MONITORING WELL
- MUNICIPAL SUPPLY WELL
- (7.5) PCE CONCENTRATION [µg/L]
- (-) NOT SAMPLED
- PCE ISOCONCENTRATION CONTOUR (µg/L, DASHED WHERE INFERRED)

**NOTES**

1. BASE MAP FROM ESRI, "WORLD TOPOGRAPHIC MAP", WEB BASEMAP SERVICE LAYER.
2. THE UPPER WONEWOC FORMATION IS INTERPRETED TO BE FROM APPROXIMATELY 100-155 FEET BELOW GROUND SURFACE (770 - 715 FEET ABOVE MEAN SEA LEVEL).
3. WELLS SHOWN IN GRAY ARE NOT PART OF THIS GROUNDWATER UNIT.
4. WELLS SAMPLED 10/02/2017 - 10/12/2017.
5. DATA QUALIFIERS NOT INCLUDED. SEE TABLES OR LABORATORY REPORTS.



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 Phone: 608.826.3600

PROJECT:

**MADISON-KIPP CORPORATION**  
 201 WAUBESA STREET  
 MADISON, WISCONSIN

TITLE:

**UPPER WONEWOC FORMATION**  
**TETRACHLOROETHENE (PCE) ISOCONCENTRATIONS**  
**OCTOBER 2017**

DRAWN BY:

B. DEEGAN

CHECKED BY:

S. SELLWOOD

APPROVED BY:

K. VATER

DATE:

FEBRUARY 2018

PROJ. NO.:

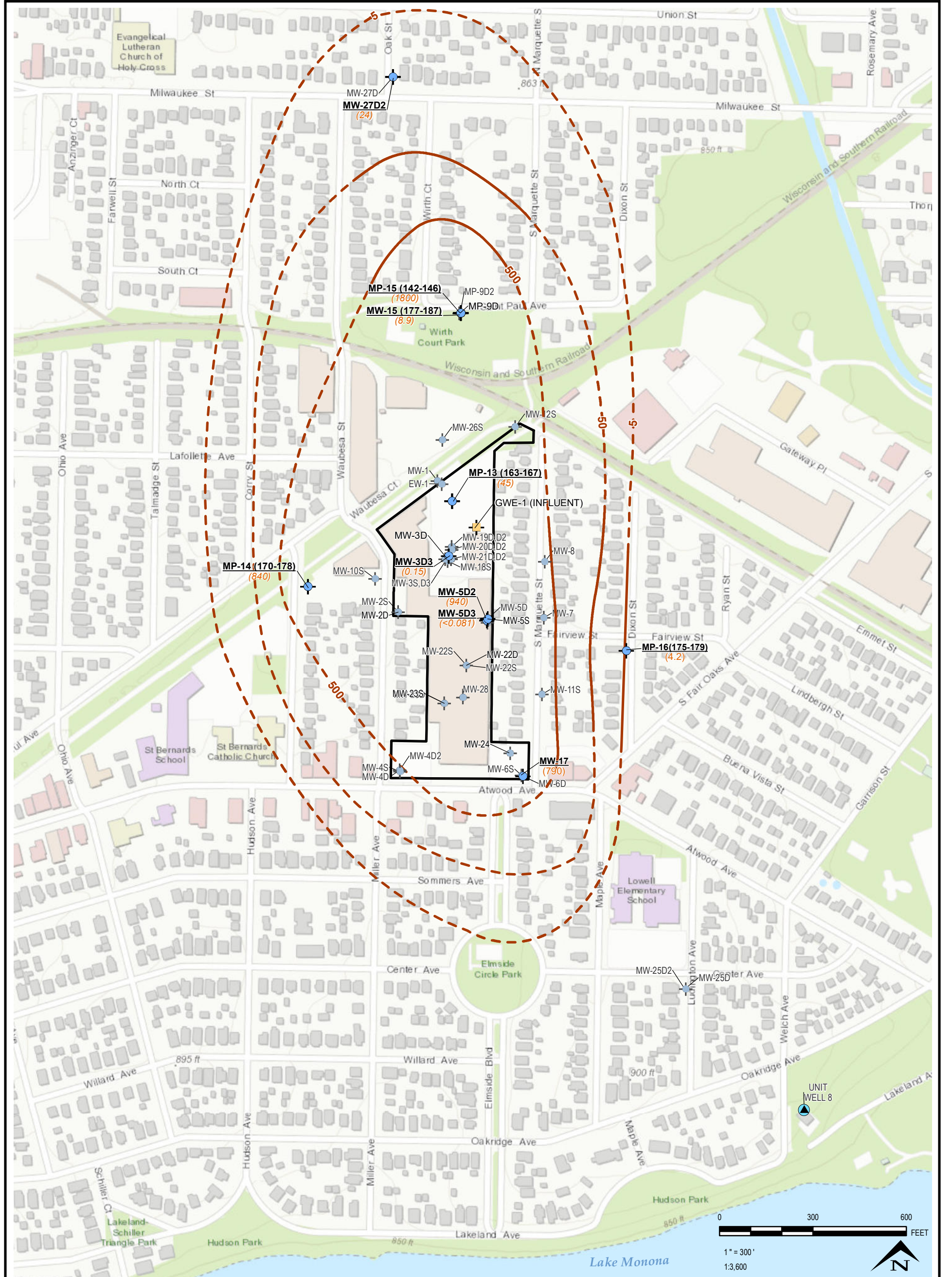
266431.0004

FILE:

266431-2017S2-011.mxd

**FIGURE 11**





**LEGEND**

- SITE PROPERTY BOUNDARY
- MONITORING WELL
- + GROUNDWATER EXTRACTION WELL
- MUNICIPAL SUPPLY WELL
- (7.5) PCE CONCENTRATION [µg/L]
- (-) NOT SAMPLED
- ~ PCE ISOCONCENTRATION CONTOUR (µg/L, DASHED WHERE INFERRED)

**NOTES**

1. BASE MAP FROM ESRI, "WORLD TOPOGRAPHIC MAP", WEB BASEMAP SERVICE LAYER.
2. THE LOWER WONEWOC FORMATION IS INTERPRETED TO BE FROM APPROXIMATELY 155-240 FEET BELOW GROUND SURFACE (715-630 FEET ABOVE MEAN SEA LEVEL).
3. WELLS SHOWN IN GRAY ARE NOT PART OF THIS GROUNDWATER UNIT.
4. WELLS SAMPLED 10/02/2017 - 10/12/2017.
5. DATA QUALIFIERS NOT INCLUDED, SEE TABLES OR LABORATORY REPORTS.



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 Phone: 608.826.3600

PROJECT:

**MADISON-KIPP CORPORATION**  
 201 WAUBESA STREET  
 MADISON, WISCONSIN

TITLE:

**LOWER WONEWOC FORMATION**  
**TETRACHLOROETHENE (PCE) ISOCONCENTRATIONS**  
**OCTOBER 2017**

DRAWN BY:

B. DEEGAN

CHECKED BY:

S. SELLWOOD

APPROVED BY:

K. VATER

DATE:

FEBRUARY 2018

PROJ. NO.:

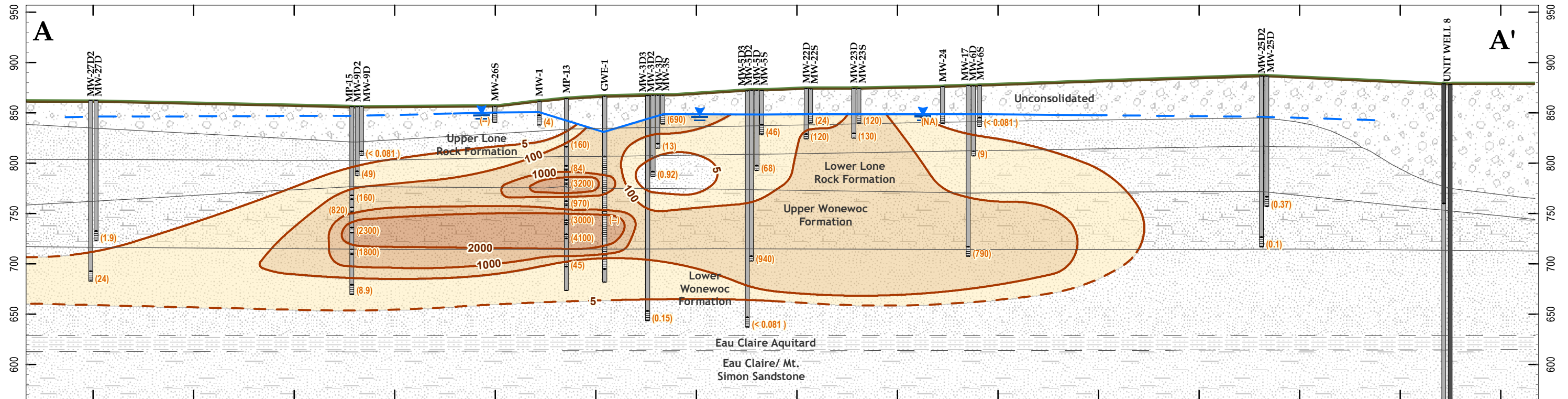
266431.0004

FILE:

266431-2017S2-012.mxd

**FIGURE 12**



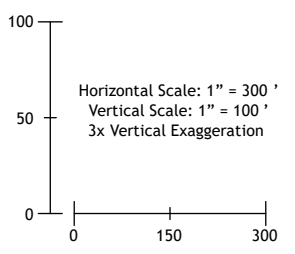
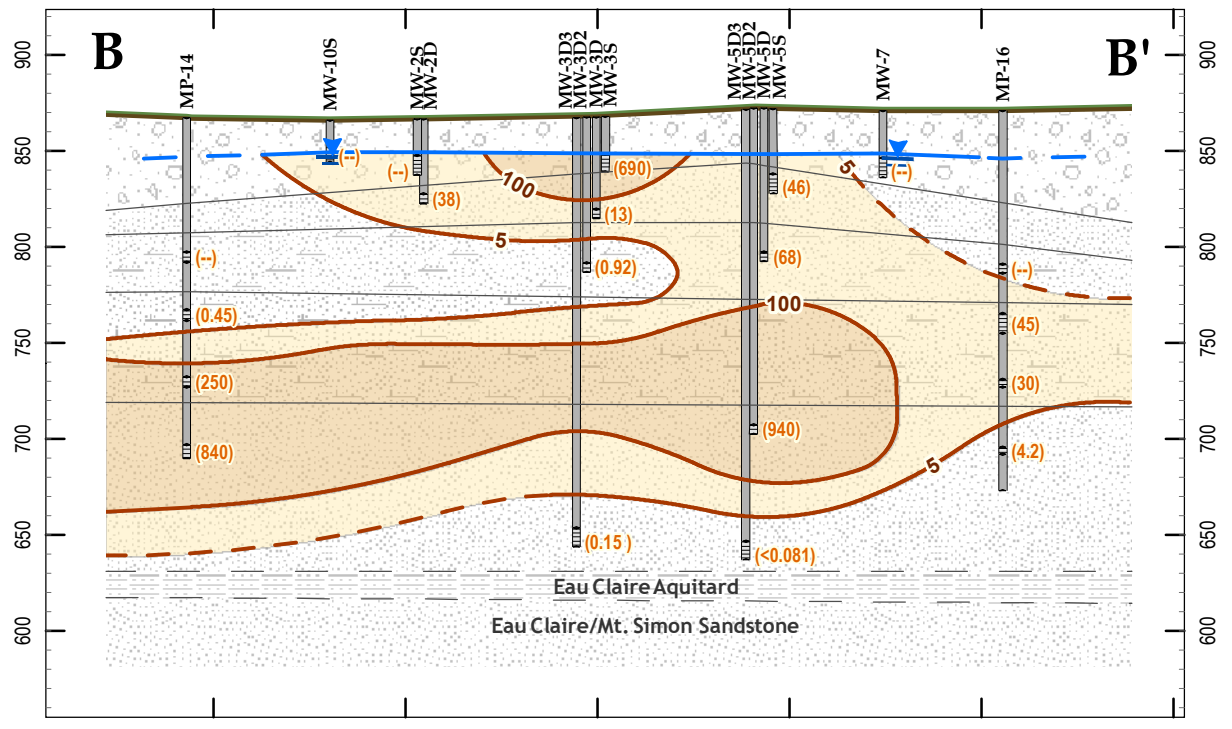


**LEGEND**

- WELL CONSTRUCTION**
- WELL RISER
  - WELL CASING
  - WELL SCREEN
- WATER TABLE ELEVATION
- PCE CONCENTRATIONS IN GROUNDWATER (DASHED WHERE INFERRED)**
- < 5 µg/L
  - 5 - <100 µg/L
  - 100 - <1000 µg/L
  - 1000 - <2000 µg/L
  - >2000 µg/L

**NOTES**

1. SEE FIGURE 2 FOR PLAN VIEW CROSS SECTION LOCATIONS.
2. WELLS SAMPLED BETWEEN OCT. 02-12, 2017.
3. FEATURES SHOWN ARE APPROXIMATE
4. DATA QUALIFIERS NOT INCLUDED, SEE TABLES OR LABORATORY REPORTS.
5. OCTOBER 2017 PCE CONCENTRATION FOR EXTRACTION WELL GWE-1 WAS NOT USED FOR CONTOURING.

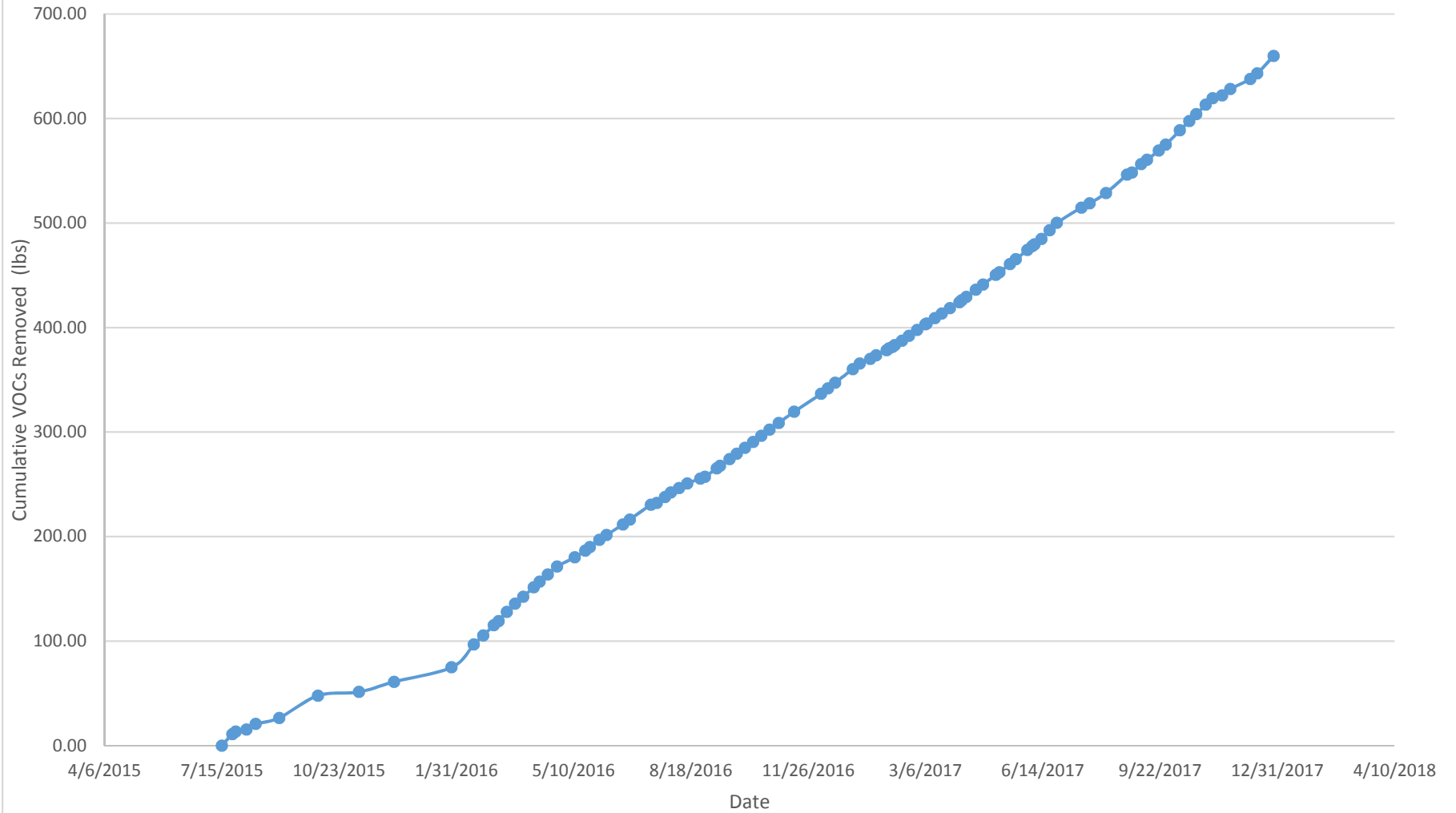


PROJECT:		<b>MADISON-KIPP CORPORATION</b> 201 WAUBESA STREET MADISON, WISCONSIN	
TITLE: <b>GEOLOGIC CROSS SECTIONS A-A' AND B-B'</b> <b>TETRACHLOROETHENE (PCE)</b> <b>CONCENTRATIONS - OCTOBER 2017</b>			
DRAWN BY:	B. DEEGAN	PROJ NO.:	266431.0004
CHECKED BY:	S. SELLWOOD	<b>FIGURE 13</b>	
APPROVED BY:	K. VATER		
DATE:	FEBRUARY 2018		
		708 Heartland Trail, Suite 3000 Madison, WI 53717 Phone: 608.826.3600 www.trcsolutions.com	
FILE NO.:	266431-2017S2-013.mxd		

# Appendix A Trend Plots

---

Trend Plot A.1  
Groundwater Extraction System Operation  
Cumulative Volatile Organic Compounds (VOCs) Removed  
Madison Kipp Corporation  
201 Waubesa Street  
Madison, Wisconsin

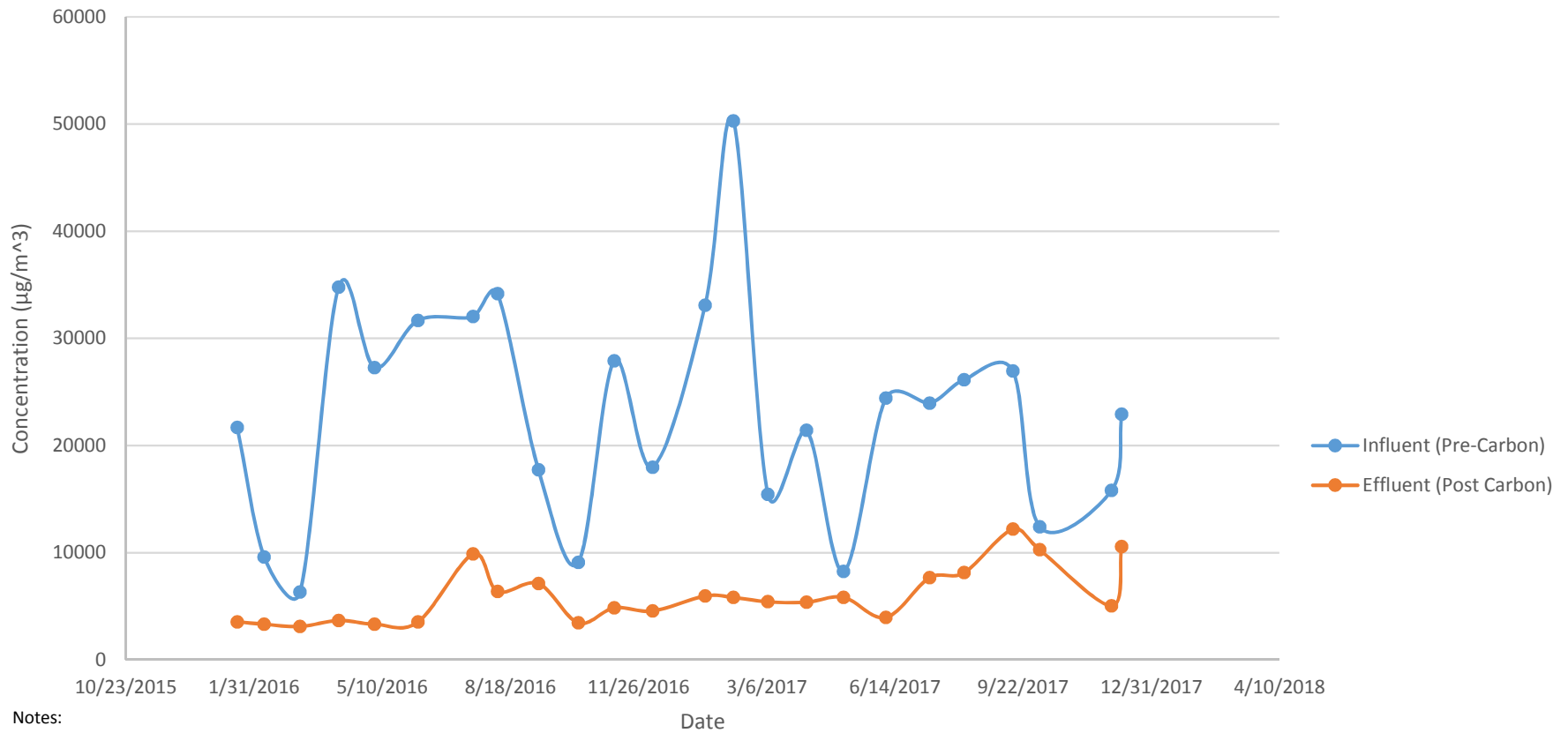


Trend Plot A.2  
PCE Concentration in GWE-1  
Madison Kipp Corporation  
201 Waubesa Street  
Madison, Wisconsin





Trend Plot A.3  
 GETS and SVE Combined Total VOC Gas Concentration - Pre and Post Carbon Adsorption Treatment  
 Madison Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin



Notes:

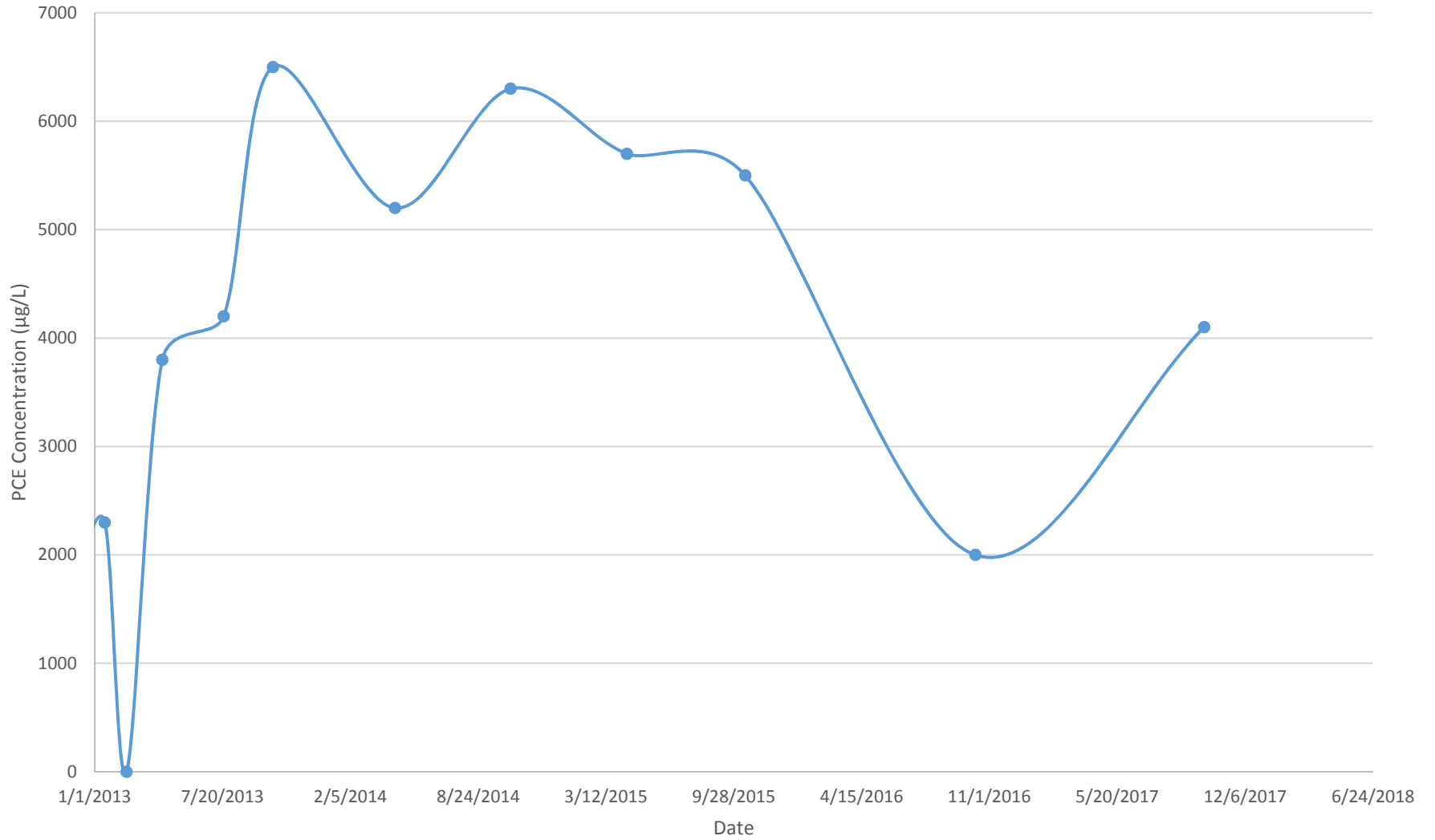
SVE = Soil Vapor Extraction  
 GETS = Groundwater Extraction and Treatment System  
 µg/m³ = micrograms per cubic meter  
 VOCs = Volatile Organic Compounds

Footnotes:

1. Total VOC concentrations were calculated based on analytes reported above and below the method reporting limit. For detected analytes, the reported concentrations were used. For all other analytes detected below the method reporting limit, half of the reporting limit was used.
2. Total VOC concentration may be biased high due to the number analytes detected below the method reporting limit.

Trend Plot A.4  
MP-13 [135-139 ft.]

Madison Kipp Corporation  
201 Waubesa Street  
Madison, Wisconsin



# Appendix B Remediation Site Operation, Maintenance, Monitoring, and Optimization Report Form 4400-194

---

**GENERAL INSTRUCTIONS, PURPOSE AND APPLICABILITY OF THIS FORM:** Completion of this form is required under s. NR 724.13(3), Wis. Adm. Code. A narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Failure to submit this form as required is a violation of s. NR 724.13(3), Wis. Adm. Code, and is subject to the penalties in s. 292.99, Wis. Stats. This form must be submitted every six months for soil or groundwater remediation projects that report operation and maintenance progress in accordance with s. NR 724.13(3), Wis. Adm. Code.

Note: Long-term monitoring results submitted in accordance with s. NR 724.17(3), Wis. Adm. Code are required to be submitted within 10 business days of receiving sampling results and are not required to be submitted using this form. However, portions of this form require monitoring data summary information that may be based on information previously submitted in accordance with s. NR 724.17(3), Wis. Adm. Code.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if this form is required to be submitted at sites responded to under the Federal Comprehensive Environmental Response and Compensation Act (commonly known as Superfund) or an equivalent State lead Superfund response.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if any of the information required in this form may be omitted or changed and obtain prior written approval for any omissions or changes.

Submittal of this form is not a substitute for reporting required by Department programs such as Waste Water or Air Management. Personally identifiable information on this form is not intended to be used for any other purpose than tracking progress of the remediation by the Bureau for Remediation and Redevelopment.

Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.). Unless otherwise noted, all citations refer to Wisconsin Administrative Code.

Note: There is a separate semi-annual report required under s. NR 700.11(1), Wis. Adm. Code. Reporting under that provision is through an internet-based form:

<http://dnr.wi.gov/topic/Brownfields/documents/regs/NR700progreport.pdf>

**Section GI - General Site Information**

**A. General Information**

1. Site name

Madison-Kipp Corporation

2. Reporting period from: 07/01/2017 To: 12/31/2017 Days in period: 184

3. Regulatory agency (enter DNR, DATCP and/or other) 4. BRRTS ID No. (2 digit program-2 digit county-6 digit site specific)  
 DNR 02-13-558625

5. Site location

Region	County	Address						
South Central Region	Dane	201 Waubesa Street						
Municipality name	<input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village		Township	Range	<input checked="" type="radio"/> E <input type="radio"/> W	Section	¼	¼ ¼
Madison			07 N	10		5	SW	NW

6. Responsible party	7. Consultant		
Name	<input type="checkbox"/> Select if the following information has changed since the last submittal		
Mark Sheppard	Company name		
Mailing address	TRC		
201 Waubesa Street, Madison, WI 53704	Mailing address		Phone number
Phone number	708 Heartland Trail, Suite 3000		(608) 826-3600
(608) 242-5207	Madison, WI 53717		

8. Contaminants  
 VOCs, Metals, PCBs

9. Soil types (USCS or USDA)  
 CL, SP, GP

10. Hydraulic conductivity(cm/sec): 0.08 - 13.2 11. Average linear velocity of groundwater (ft/yr) 0.5 - 12.9

12. If soil is treated ex situ, is the treatment location off site?  Yes  No

If yes, give location: Region \_\_\_\_\_ County \_\_\_\_\_

Municipality name	<input type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village		Township	Range	<input type="radio"/> E <input type="radio"/> W	Section	¼	¼ ¼
			N					

Site name: Madison-Kipp Corporation  
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**B. Remediation Method**

Only submit sections that apply to an individual site. Check all that apply:

- Groundwater extraction (submit a completed Section GW-1).
- Free product recovery (submit a completed Section GW-1).
- In situ air sparging (submit a completed Section GW-2).
- Groundwater natural attenuation (submit a completed Section GW-3).
- Other groundwater remediation method (submit a completed Section GW-4).
- Soil venting (including soil vapor extraction building venting and bioventing submit a completed Section IS-1).
- Soil natural attenuation (submit a completed Section IS-2).
- Other in situ soil remediation method (submit a completed Section IS-3).
- Biopiles (submit a completed Section ES-1).
- Landspreading/thinspreading of petroleum contaminated soil (submit a completed Section ES-2).
- Other ex situ remediation method (submit a completed Section ES-3).
- Site is a landfill (submit a completed Section LF-1).

**C. General Effectiveness Evaluation for All Active Systems**

If the remediation is active (not natural attenuation), complete this subsection.

1. Is the system operating at design rates and specifications?  Yes  No  
If the answer is no, explain whether or not modifications are necessary to achieve the goal that was previously established in design.
  
2. Are modifications to the system warranted to improve effectiveness  Yes  No  
If yes, explain:
  
3. Is natural attenuation an effective low cost option at this time?  Yes  No
4. Is closure sampling warranted at this time?  Yes  No
5. Are there any modifications that can be made to the remediation to improve cost effectiveness?  Yes  No  
If yes, explain: The SVE system operation is currently being evaluated.

**D. Economic and Cost Data to Date**

1. Total investigation cost: Cost not included
2. Implementation costs (design, capital and installation costs, excluding investigation costs): \_\_\_\_\_
3. Total costs during the previous reporting period: \_\_\_\_\_
4. Total costs during this reporting period: \_\_\_\_\_
5. Total anticipated costs for the next reporting period: \_\_\_\_\_
6. Are any unusual or one-time costs listed in the reporting periods covered by D.3., D.4. or D.5. above?  Yes  No  
If yes, explain:
  
7. If closure is anticipated within 12 months, estimated costs for project closeout: \_\_\_\_\_

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**E. Name(s), Signature(s) and Date of Person(s) Submitting Form**

Legibly print name, date and sign. Only persons qualified to submit reports under ch. NR 712 Wis. Adm. Code are to sign this form for sites with any ongoing active remediation, monitoring or an investigation. Other persons may sign this form for sites with no response activities during the six month reporting period.

**Registered Professional Engineers:**

I hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Katherine Vater	Project Manager
Signature <i>Kath Vater</i>	Date 2/28/2018

**Hydrogeologists:**

I hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

**Scientists:**

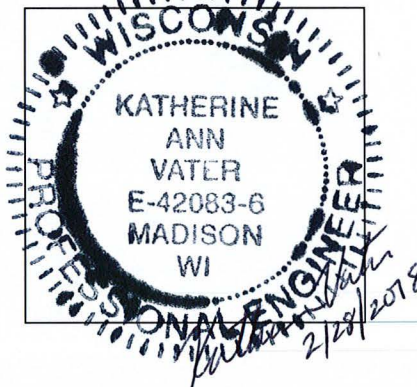
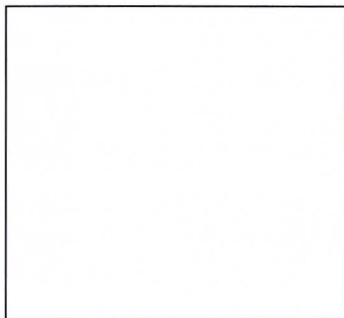
I hereby certify that I am a scientist as that term is defined in s. NR 712.03(3), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

**Other Persons:**

Print name	Title
Andrew Stehn	Project Engineer
Signature <i>Andrew Stehn</i>	Date 2/28/2018

**Professional Seal(s), if applicable:**



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## Section GW-1, Groundwater Pump and Treat Systems and Free Product Recovery Systems

### A. Groundwater Extraction System Operation:

1. Total number of groundwater extraction wells or trenches available: 1 and the number in use during period: 1

2. Number of days of operation (only list the number of days the system actually operated, if unknown explain):  
152 days

3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:  
82.5%

4. Quantity of groundwater extracted during this time period: 9,836,627 gallons

5. Average groundwater extraction rate: 45 gpm

6. Quantity of dissolved phase contaminants removed during this time period in pounds: 158 lbs

### B. Free Product Recovery System Operation

1. Is free product (nonaqueous phase liquid) being recovered at this site?  Yes  No

If yes, explain:

2. Quantity of free product extracted during this time period (enter none if none): \_\_\_\_\_ gallons

3. Average free product extraction rate: \_\_\_\_\_ gpm

### C. System Effectiveness Evaluation

1. Is a contaminated groundwater plume fully contained in the capture zone?  Yes  No

If no, explain:

The groundwater extraction and treatment system was designed to facilitate the removal of volatile organic compound (VOC) mass in addition to providing hydraulic containment of VOCs in groundwater in order to minimize off-site VOC migration.

2. If free product is present, is the free product fully contained in capture zone?  Yes  No

If no, explain:

3. If free product is present in any wells at the site, but free product was not recovered during reporting period, explain:

4. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in C.4.a.

a. Contaminant: Tetrachloroethene

b. Percent reduction necessary to reach ch. NR 140 ES and PAL: 99 %

c. Maximum contaminant concentration level in any monitoring well of that contaminant: 4,100 µg/L

d. Maximum contaminant concentration level in any extraction well of that contaminant: 1,800 µg/L

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- e. If the maximum concentration in a monitoring well is more that one order of magnitude above the concentration measured in an extraction well, explain why the extracted groundwater contamination levels are significantly less than the levels at other locations within the aquifer.

Not Applicable

### D. Additional Attachments

Attach the following to this form:

- Most recent report to the DNR Wastewater Program, if applicable. [Appendix C](#)
- Groundwater contour map with capture zone indicated. [Figures 3-7](#)
- Groundwater contaminant distribution map (may be combined with contour map). [Figures 8-13](#)
- Graph of cumulative contaminant removal, if both free product recovery and ground water extraction are used, provide separate graphs. [Appendix A: Graph A.1](#)
- Time versus groundwater contaminant concentration graphs for the contaminant listed in C.4.a. (above), as follows:
  - Graph of contaminant concentrations versus time for each extraction well in use during the period. [Appendix A: Graph A.2](#)
  - Graph of contaminant concentrations versus time for the monitoring well with the greatest level of contamination. [Appendix A: Graph A.4](#)
- Groundwater contaminant chemistry table. [Table 19](#)
- Groundwater elevations table. [Table 17](#)
- System operational data table. [Table 1](#)



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N/A

### Section GW-2, In Situ Air Sparging Systems

#### A. In Situ Air Sparging System Operation

1. Number of air injection wells at the site and the number actually in use during the period: \_\_\_\_\_
2. Number of days of operation (only list the number of days the system actually operated, if unknown explain): \_\_\_\_\_
3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain: \_\_\_\_\_

#### B. System Effectiveness Evaluation

1. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in B.1.a.
  - a. Contaminant: \_\_\_\_\_
  - b. Percent reduction necessary to reach ch. NR 140 ES and PAL: \_\_\_\_\_ %
  - c. Maximum contaminant concentration level in any monitoring well: \_\_\_\_\_ µg/L
2. Is there any evidence that air is short circuiting through natural or man-made pathways?  Yes  No  
If yes, explain: \_\_\_\_\_
3. Is the size of the plume:  Increasing  Stabalized  Decreasing ?  
If increasing, explain: \_\_\_\_\_

#### C. Additional Attachments

Attach the following to this form:

- Groundwater contour map.
- Groundwater contaminant distribution map (may be combined with contour map).
- When contaminants are aerobically biodegradable, attach a dissolved oxygen in groundwater map (dissolved oxygen may be combined with the contaminant data on a single map).
- Site map with all air injection wells and groundwater monitoring points.
- Graph of contaminant concentrations versus time for the contaminant listed in B.1.a. (above) for the monitoring point with the greatest level of contamination.
- Groundwater contaminant chemistry table.
- Groundwater elevations table.
- System operational data table.

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## Section GW-3, Natural Attenuation (Passive Bioremediation) in Groundwater

N/A

### A. Effectiveness Evaluation

1. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in A.1.a

a. Contaminant: \_\_\_\_\_

b. Percent reduction necessary to reach ch. NR 140 ES and PAL: \_\_\_\_\_ %

c. Maximum contaminant concentration level in any monitoring well of that contaminant: \_\_\_\_\_  $\mu\text{g/L}$

2. Aquifer parameters:

a. Hydraulic conductivity: \_\_\_\_\_ cm/sec

b. Groundwater average linear velocity: \_\_\_\_\_ ft/yr

3. Is there a downgradient monitoring well that meets ch. NR 140 standards?  Yes  No

4. Based on water chemistry results, is the plume:  Expanding  Stabalized  Contracting ?

5. If the answer in 4. (above) is "expanding," is natural attenuation still the best option?  Yes  No

If yes, explain:

6. Biodegradation parameters:

a. Upgradient (or other site specific background) DO level: \_\_\_\_\_  $\mu\text{g/L}$

b. DO levels in the part of the plume that is most heavily contaminated \_\_\_\_\_  $\mu\text{g/L}$

7. Is site closure a viable option within 12 months from the date of this form?  Yes  No

8. Are there any modifications that can improve cost effectiveness?  Yes  No

If yes, explain:

9. Have groundwater table fluctuations changed the contaminant level trends over time?  Yes  No

If yes, explain:

10. Has the direction of groundwater flow changed during the reporting period?  Yes  No

If yes, approximate change in degrees: \_\_\_\_\_

### B. Additional Attachments

Attach the following:

- Groundwater contour map.
- Groundwater contaminant distribution map (may be combined with contour map).
- When contaminants are aerobically biodegradable, attach a dissolved oxygen in groundwater map (dissolved oxygen may be combined with the contaminant data on a single map).
- Graph of contaminant concentrations versus time for the contaminant listed in A.1.a. (above) for the monitoring point with the greatest level of contamination.

Note: This is the minimum required graph; however, it is recommended that multiple time versus contamination concentration graphs as described in the instructions on page 24 for Natural Attenuation of Groundwater be submitted.

- Graph of contaminant concentrations versus distance.
- Groundwater contaminant chemistry table.
- Groundwater biological parameters.
- Groundwater elevations table.

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### Section GW-4, Other Groundwater Remediation Methods

N/A

#### A. Effectiveness Evaluation

1. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in A.1.a.

a. Contaminant: \_\_\_\_\_

b. Percent reduction necessary: \_\_\_\_\_ %

c. Maximum contaminant concentration level in any monitoring well: \_\_\_\_\_ µg/L

2. Is the size of the plume:  Increasing  Stabalized  Decreasing ?

3. Describe the method used to remediate groundwater at the site:

4. List any additional information required by the DNR for this method for this site:

#### B. Additional Attachments

Attach the following:

- Groundwater contour map.
- Groundwater contaminant distribution map (may be combined with contour map).
- When contaminants are aerobically biodegradable, attach a dissolved oxygen in groundwater map (dissolved oxygen may be combined with the contaminant data on a single map).
- Graph of contaminant concentrations versus time for the contaminant listed in A.1.a. (above) for the monitoring point with the greatest level of contamination.
- Groundwater contaminant chemistry table.
- Groundwater elevations table.
- Any other attachments required by the DNR for this remediation method.

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### Section IS-1, Soil Venting (Including Soil Vapor Extraction, Building Venting and Bioventing)

#### A. Soil Venting Operation

**Note:** This form is not required for building vapor mitigation systems that are installed proactively to protect building occupants/users and are not considered part of ongoing active soil remediation.

1. Number of air extraction wells available and number of wells actually in use during the period: 9

2. Number of days of operation (only list the number of days the system actually operated, if unknown explain):  
160 days

3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:  
87%

4. Average depth to groundwater: 21.53 ft

#### B. Building Basement/Subslab Venting System Operation

1. Number of venting points available and number of points actually in use during the period: \_\_\_\_\_

2. Number of days of operation (only list the number of days the system actually operated, if unknown explain): \_\_\_\_\_

3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain: \_\_\_\_\_

#### C. Effectiveness Evaluation

1. Average contaminant removal rate for the entire system: 0.013 pounds per day

2. Average contaminant removal rate per well or venting point: 0.0015 pounds per day

3. If the average contaminant removal rate is less than one pound per day for the entire system, or if the average contaminant removal rate per well is less than one tenth of a pound per day, evaluate the following:

a. If contaminants are aerobically biodegradable and confirmation borings have not been drilled in

i. Oxygen levels in extracted air: \_\_\_\_\_ percent

ii. Methane levels in extracted air (ppmv) If over 10 ppmv, explain: \_\_\_\_\_

iii. If methane is not present above 10 ppmv and if oxygen is greater than 20 percent in extracted air, you should either:

- o Drill confirmation borings during the next reporting period, if the entire site should be considered for closure.
- o Or, perform an in situ respirometry test in a zone of high contamination. Do not perform the test in an air extraction well, use a gas probe or water table well. If a zero order rate of decay based on oxygen depletion is less than 2 mg/kg per day, then you should drill confirmation borings, if the entire site should be considered for closure. If the rate of decay is between 2 and 10 mg/kg, operate for one more reporting period before evaluating further. If the zero order rate of decay is greater than 10 mg/kg total hydrocarbons, continue operating the system in a manner than maximizes aerobic biodegradation.

b. If contaminants are not aerobically biodegradable and confirmation borings have not been recently drilled during the past year, you should drill confirmation borings during the next reporting period if the entire site should be considered for closure.

c. If soil borings were drilled during the past year and soil contamination remains above acceptable levels, explain if the system effectiveness can be increased and/or if other options need to be considered to achieve cleanup criteria.

#### D. Additional Attachments

Attach the following to this form:

- Well and soil sample location map indicating all air extraction wells. If forced air injection wells are also in use, identify those wells. [Appendix E, Figure E-1](#)
- If water table monitoring wells are present at the site, a map of well locations. [Figure 2](#)
- Time versus vapor phase contaminant concentration graph. [Appendix A - Graph A.3 depicts concentration versus time for the combined GETS and SVE vapor.](#)
- Time versus cumulative contaminant removal graph. [Appendix E For SVE ONLY / SVE and GETS vapor is combined and sampled, see Appendix A, Graph A.3.](#)
- Groundwater elevations table, if water table wells are present at the site; also list screen lengths and elevations. [Table 17](#)
- Table of soil contaminant chemistry data. [N/A](#)
- Soil gas data, if gas probes are used to monitor subsurface conditions in locations other than where air is extracted. [Table 20](#)
- System operational data table. [Table 15](#)

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### Section IS-2, Natural Attenuation (Passive Bioremediation) in Soil

N/A

#### A. Effectiveness Evaluation

1. Soil gas information in the soil that is most contaminated from a permanently installed gas probe(s) or water table monitoring well(s).

a. Hydrocarbon levels: \_\_\_\_\_ ppm, with an FID

b. Oxygen levels: \_\_\_\_\_ percent

c. Carbon dioxide levels(specify ppm or percent): \_\_\_\_\_

d. Methane levels: \_\_\_\_\_ ppm

2. Soil gas information in background (uncontaminated soil) from permanently installed gas probe(s) or water table monitoring well(s):

a. Hydrocarbon levels: \_\_\_\_\_ ppm, with an FID

b. Oxygen levels: \_\_\_\_\_ percent

c. Carbon dioxide levels(specify ppm or percent): \_\_\_\_\_

d. Methane levels: \_\_\_\_\_ ppm

3. List the results of the single boring that had the highest levels of soil contamination during the last round of soil sampling, and the date those samples were collected. Since soil borings are only drilled periodically, list the most recent data even if the data is prior to this reporting period. Since this data is used to assess progress based on the most recent soil sampling event, do not list data from prior sampling events.

a. Total hydrocarbons (Specify if GRO and/or DRO): \_\_\_\_\_ µg/kg

b. Specific compounds (µg/kg):

i. Benzene: \_\_\_\_\_ µg/kg

ii. 1,2 Dichloroethane: \_\_\_\_\_ µg/kg

iii. Ethylbenzene: \_\_\_\_\_ µg/kg

iv. Toluene: \_\_\_\_\_ µg/kg

v. Total xylenes: \_\_\_\_\_ µg/kg

4. Is there any evidence that contaminants are leaching into groundwater?  Yes  No

If the answer is yes and if groundwater quality is not being monitored, explain:

5. Is site closure a viable option within 12 months from the date of this form?  Yes  No

6. Are there any modifications that can be made to the remediation to improve cost effectiveness?  Yes  No

If yes, explain:

#### B. Additional Attachments

Attach the following to this form:

- Well and soil sample location map.
- Cross sections showing the water table, soil sampling locations, screened intervals for gas probes or water table wells, geologic contacts, and any former excavation boundaries.
- Graphs of contaminant concentrations, oxygen, carbon dioxide and methane levels over time.
- Groundwater elevations table, if water table wells are present at the site.
- Table of soil contaminant chemistry.
- Table of soil gas readings.

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### Section IS-3, Other In Situ Soil Remediation Methods

N/A

#### A. Effectiveness Evaluation

1. Describe the method used to remediate soil at the site:

2. List all information required by the DNR for this remediation method for this site:

#### B. Additional Attachments

Attach the following to this form:

- Any other attachments required by the DNR for this remediation method.

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### Section ES-1, Ex Situ Soil Treatment Using Biopiles

N/A

#### A. Effectiveness Evaluation

1. Volume of soil in the biopile (if multiple biopiles, list number of piles and total volume):

2. Monitoring used to assess progress and verify optimal conditions for biodegradation.

a. Vapor phase measurements of gases (average of all readings from most recent sampling event):

i. VOCs by FID: \_\_\_\_\_ ppm

ii. Oxygen: \_\_\_\_\_ percent

iii. Carbon dioxide: \_\_\_\_\_ percent

iv. Methane: \_\_\_\_\_ ppm

b. Soil temperature: \_\_\_\_\_ °F

c. Soil moisture sensors, if used: \_\_\_\_\_ percent

3. Treatment amendments added to the soil during construction:

a. Artificial nutrients, excluding manure.

i. Types and total pounds added:

ii. Nitrogen and phosphorous content of the added amendment: \_\_\_\_\_ percent

b. Manure: \_\_\_\_\_ total pounds

c. Natural organic materials (straw, wood chips, etc.)(type and total pounds):

4. Forced air biopiles only answer the following:

a. Total air flow rate of the ventilation system: \_\_\_\_\_ scfm

b. Average contaminant removal rate: \_\_\_\_\_ pounds per day

c. Average biodegradation rate based on oxygen utilization: \_\_\_\_\_ pounds per day

5. If soil samples have been taken to monitor progress, list results. Only list the most recent results. If none collected enter NA.

a. Total hydrocarbons. Specify if GRO and/or DRO: \_\_\_\_\_ µg/kg

b. Specific compounds (µg/kg):

i. Benzene: \_\_\_\_\_ µg/kg

ii. 1,2 Dichloroethane: \_\_\_\_\_ µg/kg

iii. Ethylbenzene: \_\_\_\_\_ µg/kg

iv. Toluene: \_\_\_\_\_ µg/kg

v. Total xylenes: \_\_\_\_\_ µg/kg

#### B. Additional Attachments

Attach the following to this form:

- Figure showing the construction details of the biopile and any sampling locations within the biopile.
- Table of soil contaminant chemistry data.
- Table of operational data.

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### Section ES-2, Ex Situ Soil Treatment Using Landspreading/Thinspreading

N/A

#### A. Effectiveness Evaluation

1. Method used:  landspreading  thinspreading

**Note:** For purposes of this form, "landspreading" is the placement of contaminated soil on native topsoil, incorporation of that soil into the native soil and planting crops or other plants on it. The term "thinspreading" refers to placing contaminated soil on an impervious base for aeration.

2. Was any progress monitoring using field screening on soil conducted during this reporting period?  Yes  No

3. If the answer to A.2. (above) is yes:

i. List monitoring method:

ii. List monitoring results:

4. Is there any evidence of soil erosion at the landspreading/thinspreading location?  Yes  No

5. Spreading thickness: \_\_\_\_\_ inches

6. Type of crop planted (if thinspreading with no crop planted, so state):

7. Confirmation sampling date: \_\_\_\_\_ Anticipated confirmation sampling date: \_\_\_\_\_

8. Most recent soil sample results, if soil samples for laboratory analysis have been collected to monitor progress. Only list the highest result of the most recent sampling round. If no samples have been collected, enter NA.

a. Total hydrocarbons. Specify if GRO and/or DRO: \_\_\_\_\_  $\mu\text{g}/\text{kg}$

b. Specific compounds ( $\mu\text{g}/\text{kg}$ ):

i. Benzene: \_\_\_\_\_  $\mu\text{g}/\text{kg}$

ii. 1,2 Dichloroethane: \_\_\_\_\_  $\mu\text{g}/\text{kg}$

iii. Ethylbenzene: \_\_\_\_\_  $\mu\text{g}/\text{kg}$

iv. Toluene: \_\_\_\_\_  $\mu\text{g}/\text{kg}$

v. Total xylenes: \_\_\_\_\_  $\mu\text{g}/\text{kg}$

#### B. Additional Attachments

Attach the following to this form:

- Map of the landspreading/thinspreading area. If soil samples have been collected, specify locations of samples and dates of sampling.
- Table of soil contaminant chemistry data.
- Table of any field screening results with dates of sample collection.



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### Section ES-3, Landfills

N/A

**Note:** Reporting forms or reporting requirements in a Department approved Operation and Maintenance Plan for a landfill may take the place of this form.

Specific Inspection Items	Potential Problem Areas	Status	Notes
Perimeter Security Fencing	Broken or missing wood slats, torn chain link fabric, barbed wire, other - list		
Entrance Gate and Locking Mechanism	Lock broken/missing, mechanism inoperative.		
Monitoring Wells and Wellhead Covers	Signs of tampering, casing damaged, lock missing.		
Final Cover Vegetation	Bare spots, stressed vegetation, deep rooted vegetation.		
Final Cover Slope (explain below)	Gullies, lack of vegetation, subsidence, ponding.		
Evidence of Burrowing Animals	Damage to final cover, evidence of waste.		
Stormwater Drainage Channels	Gullies, erosion, debris, culvert blocked.		
Passive Landfill Gas Venting System	Damaged or blocked vent risers, stressed vegetation.		
Active Landfill Gas Extraction System	Damaged or blocked piping, cleanouts, other blower flare, knockouts, etc.		
Leachate Collection System	Pumps, connection piping, collection system piping, extraction wells, collection tanks, tanker truck loading system or sanitary sewer discharge piping.		
Access Road Cover Mowing; Tall Vegetation Removal	Ponding, rutting, erosion, cracked or damaged pavement. Mowing and tall vegetation removal done to specified vegetation.		

Summary of Deficiencies and/or Corrective Actions:

Site name: Madison-Kipp Corporation

Reporting period from: 07/01/2017

To: 12/31/2017

Days in period: 184

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 11/14)

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### B. Additional Attachments

N/A

Attach the following to this form:

- Any photographs documenting problems and maintenance activities.
- Maps, drawings showing site features requiring maintenance.
- Records for leachate pumping/discharge/hauling.
- Records for active gas extraction volumes.

# Appendix C

## December 2017 WPDES DMR Submittal (on CD)

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January 12, 2018

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

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

Dear Mr. Knutson,

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

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

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

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

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

Mark Sheppard

A handwritten signature in blue ink, appearing to read "Mark Sheppard", is written over the printed name.

Madison-Kipp Corporation



Attachment A Discharge Monitoring Report Form  
Attachment B Laboratory Reports

Copies:

Andrew Stehn - TRC (electronic)

Mike Schmoller - WDNR (electronic)

Wendy Weihemuller - WDNR (electronic)

George Parrino - Madison Department of Health (electronic)

Attachment A  
Discharge Monitoring Report Form

**DISCHARGE MONITORING REPORT FORM**

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

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

Year: 2017

Rev. December 16, 2013

**Facility Name and Location**

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

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

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

**FOOTNOTES**

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

**DIRECTIONS**

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

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

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

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

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

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



Attachment B  
Laboratory Reports

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-138419-1

Client Project/Site: MadisonKipp - GETS/SVE

For:

Madison-Kipp Corporation

201 Waubesa Street

Madison, Wisconsin 53704

Attn: Alina Satkoski



Authorized for release by:

12/13/2017 4:19:30 PM

Sandie Fredrick, Project Manager II

(920)261-1660

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

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

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

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

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

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

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# Case Narrative

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

TestAmerica Job ID: 500-138419-1

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

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**Laboratory: TestAmerica Chicago**

---

**Narrative**

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**Job Narrative  
500-138419-1**

**Receipt**

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

**Receipt Exceptions**

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

**GC/MS VOA**

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

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

**General Chemistry**

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



# Detection Summary

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

TestAmerica Job ID: 500-138419-1

## Client Sample ID: Influent

Lab Sample ID: 500-138419-1

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

## Client Sample ID: Effluent

Lab Sample ID: 500-138419-2

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

## Client Sample ID: Trip Blank

Lab Sample ID: 500-138419-3

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Method Summary

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

TestAmerica Job ID: 500-138419-1

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

#### Protocol References:

1664B = 1664B

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

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

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

#### Laboratory References:

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

# Sample Summary

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

TestAmerica Job ID: 500-138419-1

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

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# Client Sample Results

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

TestAmerica Job ID: 500-138419-1

**Client Sample ID: Influent**

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

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

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

**Matrix: Water**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.73		2.5	0.73	ug/L			12/13/17 11:51	5
Bromoform	<2.2		5.0	2.2	ug/L			12/13/17 11:51	5
Carbon tetrachloride	<1.9		5.0	1.9	ug/L			12/13/17 11:51	5
Chloroform	<1.9		10	1.9	ug/L			12/13/17 11:51	5
<b>cis-1,2-Dichloroethene</b>	<b>83</b>		5.0	2.0	ug/L			12/13/17 11:51	5
Dichlorobromomethane	<1.9		5.0	1.9	ug/L			12/13/17 11:51	5
1,2-Dichloroethane	<2.0		5.0	2.0	ug/L			12/13/17 11:51	5
1,1-Dichloroethene	<2.0		5.0	2.0	ug/L			12/13/17 11:51	5
Ethylbenzene	<0.92		2.5	0.92	ug/L			12/13/17 11:51	5
Methyl bromide	<3.2		10	3.2	ug/L			12/13/17 11:51	5
Methyl chloride	<1.6		5.0	1.6	ug/L			12/13/17 11:51	5
Methyl tert-butyl ether	<2.0		5.0	2.0	ug/L			12/13/17 11:51	5
1,1,2,2-Tetrachloroethane	<2.0		5.0	2.0	ug/L			12/13/17 11:51	5
Toluene	<0.76		2.5	0.76	ug/L			12/13/17 11:51	5
trans-1,2-Dichloroethene	<1.7		5.0	1.7	ug/L			12/13/17 11:51	5
1,1,1-Trichloroethane	<1.9		5.0	1.9	ug/L			12/13/17 11:51	5
1,1,2-Trichloroethane	<1.8		5.0	1.8	ug/L			12/13/17 11:51	5
<b>Trichloroethene</b>	<b>130</b>		2.5	0.82	ug/L			12/13/17 11:51	5
Vinyl chloride	<1.0		2.5	1.0	ug/L			12/13/17 11:51	5
Xylenes, Total	<2.0		5.0	2.0	ug/L			12/13/17 11:51	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		71 - 120		12/13/17 11:51	5
1,2-Dichloroethane-d4 (Surr)	106		71 - 127		12/13/17 11:51	5
Toluene-d8 (Surr)	92		75 - 120		12/13/17 11:51	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Tetrachloroethene</b>	<b>1600</b>		50	19	ug/L			12/13/17 12:19	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		71 - 120		12/13/17 12:19	50
1,2-Dichloroethane-d4 (Surr)	107		71 - 127		12/13/17 12:19	50
Toluene-d8 (Surr)	90		75 - 120		12/13/17 12:19	50

## General Chemistry

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



# Client Sample Results

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

TestAmerica Job ID: 500-138419-1

**Client Sample ID: Effluent**  
**Date Collected: 12/08/17 10:45**  
**Date Received: 12/09/17 10:25**

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

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.15		0.50	0.15	ug/L			12/13/17 12:45	1
Bromoform	<0.45		1.0	0.45	ug/L			12/13/17 12:45	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			12/13/17 12:45	1
Chloroform	<0.37		2.0	0.37	ug/L			12/13/17 12:45	1
<b>cis-1,2-Dichloroethene</b>	<b>16</b>		1.0	0.41	ug/L			12/13/17 12:45	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			12/13/17 12:45	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			12/13/17 12:45	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			12/13/17 12:45	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			12/13/17 12:45	1
Methyl bromide	<0.65		2.0	0.65	ug/L			12/13/17 12:45	1
Methyl chloride	<0.32		1.0	0.32	ug/L			12/13/17 12:45	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			12/13/17 12:45	1
1,1,1,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			12/13/17 12:45	1
<b>Tetrachloroethene</b>	<b>26</b>		1.0	0.37	ug/L			12/13/17 12:45	1
Toluene	<0.15		0.50	0.15	ug/L			12/13/17 12:45	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			12/13/17 12:45	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			12/13/17 12:45	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			12/13/17 12:45	1
<b>Trichloroethene</b>	<b>6.7</b>		0.50	0.16	ug/L			12/13/17 12:45	1
Vinyl chloride	<0.20		0.50	0.20	ug/L			12/13/17 12:45	1
Xylenes, Total	<0.40		1.0	0.40	ug/L			12/13/17 12:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		71 - 120					12/13/17 12:45	1
1,2-Dichloroethane-d4 (Surr)	106		71 - 127					12/13/17 12:45	1
Toluene-d8 (Surr)	93		75 - 120					12/13/17 12:45	1

## General Chemistry

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

# Client Sample Results

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

TestAmerica Job ID: 500-138419-1

**Client Sample ID: Trip Blank**

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

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

**Matrix: Water**

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

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

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

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

# Definitions/Glossary

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

TestAmerica Job ID: 500-138419-1

## Qualifiers

### General Chemistry

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

## Glossary

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

# QC Association Summary

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

TestAmerica Job ID: 500-138419-1

## GC/MS VOA

### Analysis Batch: 413553

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

## General Chemistry

### Prep Batch: 413259

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

### Analysis Batch: 413260

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

### Analysis Batch: 413414

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

### Analysis Batch: 413638

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

# Surrogate Summary

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

TestAmerica Job ID: 500-138419-1

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

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

#### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

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

TOL = Toluene-d8 (Surr)

# QC Sample Results

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

TestAmerica Job ID: 500-138419-1

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

**Lab Sample ID: MB 500-413553/7**  
**Matrix: Water**  
**Analysis Batch: 413553**

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

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

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

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

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

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

TestAmerica Chicago

# QC Sample Results

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

TestAmerica Job ID: 500-138419-1

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

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

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

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

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

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

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

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

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

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

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

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

## Method: 300.0 - Anions, Ion Chromatography

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

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

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

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

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

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

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# QC Sample Results

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

TestAmerica Job ID: 500-138419-1

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

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

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

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

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

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

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



# Lab Chronicle

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

TestAmerica Job ID: 500-138419-1

## Client Sample ID: Influent

Date Collected: 12/08/17 10:40

Date Received: 12/09/17 10:25

## Lab Sample ID: 500-138419-1

Matrix: Water

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

## Client Sample ID: Effluent

Date Collected: 12/08/17 10:45

Date Received: 12/09/17 10:25

## Lab Sample ID: 500-138419-2

Matrix: Water

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

## Client Sample ID: Trip Blank

Date Collected: 12/08/17 00:00

Date Received: 12/09/17 10:25

## Lab Sample ID: 500-138419-3

Matrix: Water

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

### Laboratory References:

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

# Accreditation/Certification Summary

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

TestAmerica Job ID: 500-138419-1

## Laboratory: TestAmerica Chicago

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

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

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

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

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

## Chain of Custody Record

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

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



500-138419 COC

Turnaround Time Required (Business Days)

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

Sample Disposal

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

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

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

Shipped: EX Saturday

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

Matrix Key

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

Client Comments

Lab Comments:

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



# Login Sample Receipt Checklist

Client: Madison-Kipp Corporation

Job Number: 500-138419-1

**Login Number: 138419**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: Sanchez, Ariel M**

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



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-138419-2

Client Project/Site: MadisonKipp - GETS/SVE

For:

Madison-Kipp Corporation

201 Waubesa Street

Madison, Wisconsin 53704

Attn: Alina Satkoski



Authorized for release by:

12/14/2017 4:03:42 PM

Sandie Fredrick, Project Manager II

(920)261-1660

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

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



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

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

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

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

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# Case Narrative

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

TestAmerica Job ID: 500-138419-2

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

**Laboratory: TestAmerica Chicago**

## Narrative

**Job Narrative  
500-138419-2**

### Comments

No additional comments.

### Receipt

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

### Receipt Exceptions

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

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

### GC/MS Semi VOA

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

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

### General Chemistry

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

### Organic Prep

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

# Detection Summary

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

TestAmerica Job ID: 500-138419-2

## Client Sample ID: Influent

Lab Sample ID: 500-138419-1

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

## Client Sample ID: Effluent

Lab Sample ID: 500-138419-2

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

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Method Summary

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

TestAmerica Job ID: 500-138419-2

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

**Protocol References:**

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

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

**Laboratory References:**

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

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

# Sample Summary

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

TestAmerica Job ID: 500-138419-2

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

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# Client Sample Results

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

TestAmerica Job ID: 500-138419-2

**Client Sample ID: Influent**

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

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

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

**Matrix: Water**

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

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

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

**General Chemistry**

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

# Client Sample Results

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

TestAmerica Job ID: 500-138419-2

**Client Sample ID: Effluent**

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

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

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

**Matrix: Water**

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

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

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

**General Chemistry**

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

# Definitions/Glossary

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

TestAmerica Job ID: 500-138419-2

## Qualifiers

### GC/MS Semi VOA

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

## Glossary

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



# QC Association Summary

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

TestAmerica Job ID: 500-138419-2

## GC/MS Semi VOA

### Prep Batch: 482648

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

### Analysis Batch: 482841

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

## General Chemistry

### Analysis Batch: 413157

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

# Surrogate Summary

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

TestAmerica Job ID: 500-138419-2

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

Matrix: Water

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

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

#### Surrogate Legend

NBZ = Nitrobenzene-d5

TPHL = Terphenyl-d14

FBP = 2-Fluorobiphenyl (Surr)

# QC Sample Results

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

TestAmerica Job ID: 500-138419-2

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

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

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

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

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

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

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

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

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

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

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

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

TestAmerica Chicago

# QC Sample Results

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

TestAmerica Job ID: 500-138419-2

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

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

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

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

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

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

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

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

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

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

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

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

# Lab Chronicle

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

TestAmerica Job ID: 500-138419-2

## Client Sample ID: Influent

Date Collected: 12/08/17 10:40

Date Received: 12/09/17 10:25

## Lab Sample ID: 500-138419-1

Matrix: Water

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

## Client Sample ID: Effluent

Date Collected: 12/08/17 10:45

Date Received: 12/09/17 10:25

## Lab Sample ID: 500-138419-2

Matrix: Water

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

### Laboratory References:

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

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

# Accreditation/Certification Summary

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

TestAmerica Job ID: 500-138419-2

## Laboratory: TestAmerica Chicago

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

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

## Laboratory: TestAmerica Nashville

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

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

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

TestAmerica Chicago

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

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

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

## Chain of Custody Record

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

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



500-138419 COC

Turnaround Time Required (Business Days)

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

Sample Disposal

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

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

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

Shipped: EX Saturday

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

Matrix Key

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

Client Comments

\_\_\_\_\_

Lab Comments:

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





## COOLER RECEIPT FORM



Cooler Received/Opened On 12/12/17 0955

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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



# Login Sample Receipt Checklist

Client: Madison-Kipp Corporation

Job Number: 500-138419-2

**Login Number: 138419**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: Sanchez, Ariel M**

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





# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Nashville

2960 Foster Creighton Drive

Nashville, TN 37204

Tel: (615)726-0177

TestAmerica Job ID: 490-144103-1

Client Project/Site: MadisonKipp - GETS 292257

For:

TRC Environmental Corporation.

708 Heartland Trail

Suite 3000

Madison, Wisconsin 53717

Attn: Andrew Stehn



Authorized for release by:

1/8/2018 3:46:47 PM

Sandie Fredrick, Project Manager II

(920)261-1660

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

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

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

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

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

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

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# Sample Summary

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

TestAmerica Job ID: 490-144103-1

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

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# Case Narrative

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

TestAmerica Job ID: 490-144103-1

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

**Laboratory: TestAmerica Nashville**

## Narrative

**Job Narrative  
490-144103-1**

## Comments

No additional comments.

## Receipt

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

## GC/MS Semi VOA

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

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

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

## Organic Prep

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



# Definitions/Glossary

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

TestAmerica Job ID: 490-144103-1

## Qualifiers

### GC/MS Semi VOA

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

## Glossary

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

# Client Sample Results

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

TestAmerica Job ID: 490-144103-1

**Client Sample ID: INFLUENT**

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

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

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

**Matrix: Wastewater**

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

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

# Client Sample Results

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

TestAmerica Job ID: 490-144103-1

**Client Sample ID: EFFLUENT**

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

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

**Matrix: Wastewater**

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

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

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

# QC Sample Results

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

TestAmerica Job ID: 490-144103-1

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

**Lab Sample ID: MB 490-487817/1-A**  
**Matrix: Water**  
**Analysis Batch: 487752**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 487817**

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

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

**Lab Sample ID: LCS 490-487817/2-A**  
**Matrix: Water**  
**Analysis Batch: 487752**

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

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

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

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

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

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

TestAmerica Nashville

# QC Sample Results

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

TestAmerica Job ID: 490-144103-1

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

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

Matrix: Water

Analysis Batch: 487752

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 487817

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

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

# QC Association Summary

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

TestAmerica Job ID: 490-144103-1

## GC/MS Semi VOA

### Analysis Batch: 487752

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

### Prep Batch: 487817

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



# Lab Chronicle

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

TestAmerica Job ID: 490-144103-1

## Client Sample ID: INFLUENT

Date Collected: 01/03/18 13:30

Date Received: 01/05/18 10:05

## Lab Sample ID: 490-144103-1

Matrix: Wastewater

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

## Client Sample ID: EFFLUENT

Date Collected: 01/03/18 13:20

Date Received: 01/05/18 10:05

## Lab Sample ID: 490-144103-2

Matrix: Wastewater

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

### Laboratory References:

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

# Method Summary

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

TestAmerica Job ID: 490-144103-1

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

**Protocol References:**

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

**Laboratory References:**

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



# Accreditation/Certification Summary

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

TestAmerica Job ID: 490-144103-1

## Laboratory: TestAmerica Nashville

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

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

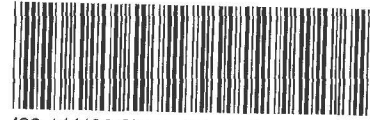
## Laboratory: TestAmerica Chicago

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

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

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

## COOLER RECEIPT FORM



490-144103 Chain of Custody

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

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

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

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

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

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

If yes, how many and where: 2 (front)

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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

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

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

## Chain of Custody Record

Lab Job #: \_\_\_\_\_

Chain of Custody Number: \_\_\_\_\_

Page 1 of 1

Temperature °C of Cooler: \_\_\_\_\_

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

Page 15 of 16

Turnaround Time Required (Business Days)

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

Sample Disposal

Return to Client

Disposal by Lab

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

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

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

Relinquished By <u>Andrew Stehn</u>	Company <u>TRC</u>	Date <u>01/03/18</u>	Time <u>14:00</u>	Received By <u>[Signature]</u>	Company <u>TA-NAS</u>	Date <u>01-05-2018</u>	Time <u>10:05</u>	Lab Courier _____
Relinquished By _____	Company _____	Date _____	Time _____	Received By _____	Company _____	Date _____	Time _____	Shipped <u>FED EX</u>
Relinquished By _____	Company _____	Date _____	Time _____	Received By _____	Company _____	Date _____	Time _____	Hand Delivered _____

Matrix Key

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

Client Comments

SEE ATTACHED PAH LIST

Lab Comments:

Z.P.



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

**PAHs (Group of 10)**

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

Loc: 490  
**144103**

**PAHs**

Benzo(a)pyrene	625 SIM
Naphthalene	

**Oil and Grease**

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

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

Chloride	300
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Appendix D  
Monthly SVE/GETS Influent and Effluent  
Vapor Laboratory Analytical Reports (on CD)

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7/26/2017

Ms. Alina Satkoski  
Madison-Kipp Corporation  
201 Waubesa Street

Madison WI 53704

Project Name: GETS/SVE

Project #:

Workorder #: 1707241

Dear Ms. Alina Satkoski

The following report includes the data for the above referenced project for sample(s) received on 7/17/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

**WORK ORDER #: 1707241**

Work Order Summary

<b>CLIENT:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704	<b>BILL TO:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704
<b>PHONE:</b>	608-244-3511	<b>P.O. #</b>	107418
<b>FAX:</b>		<b>PROJECT #</b>	GETS/SVE
<b>DATE RECEIVED:</b>	07/17/2017	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	07/26/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	Influent	TO-15	6.5 "Hg	14.7 psi
02A	Effluent	TO-15	7.3 "Hg	15.1 psi
03A	Lab Blank	TO-15	NA	NA
04A	CCV	TO-15	NA	NA
05A	LCS	TO-15	NA	NA
05AA	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 07/26/17

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**Madison-Kipp Corporation**  
**Workorder# 1707241**

Two 1 Liter Summa Canister samples were received on July 17, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

Dilution was performed on samples Influent and Effluent due to the presence of high level target species.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: Influent**

**Lab ID#: 1707241-01A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
cis-1,2-Dichloroethene	10	870	40	3400
Trichloroethene	10	530	55	2800
Tetrachloroethene	10	2300	69	16000

**Client Sample ID: Effluent**

**Lab ID#: 1707241-02A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	2.7	2.9	6.8	7.5
cis-1,2-Dichloroethene	2.7	770	11	3000
Trichloroethene	2.7	430	14	2300
Tetrachloroethene	2.7	280	18	1900



Air Toxics

Client Sample ID: Influent

Lab ID#: 1707241-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a071907	Date of Collection:	7/11/17 11:50:00 AM
Dil. Factor:	20.4	Date of Analysis:	7/19/17 02:37 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	10	Not Detected	50	Not Detected
Freon 114	10	Not Detected	71	Not Detected
Chloromethane	100	Not Detected	210	Not Detected
Vinyl Chloride	10	Not Detected	26	Not Detected
Bromomethane	100	Not Detected	400	Not Detected
Chloroethane	41	Not Detected	110	Not Detected
Freon 11	10	Not Detected	57	Not Detected
Freon 113	10	Not Detected	78	Not Detected
1,1-Dichloroethene	10	Not Detected	40	Not Detected
Methylene Chloride	100	Not Detected	350	Not Detected
Methyl tert-butyl ether	41	Not Detected	150	Not Detected
1,1-Dichloroethane	10	Not Detected	41	Not Detected
cis-1,2-Dichloroethene	10	870	40	3400
Chloroform	10	Not Detected	50	Not Detected
1,1,1-Trichloroethane	10	Not Detected	56	Not Detected
Carbon Tetrachloride	10	Not Detected	64	Not Detected
Benzene	10	Not Detected	32	Not Detected
1,2-Dichloroethane	10	Not Detected	41	Not Detected
Trichloroethene	10	530	55	2800
1,2-Dichloropropane	10	Not Detected	47	Not Detected
cis-1,3-Dichloropropene	10	Not Detected	46	Not Detected
Toluene	10	Not Detected	38	Not Detected
trans-1,3-Dichloropropene	10	Not Detected	46	Not Detected
1,1,2-Trichloroethane	10	Not Detected	56	Not Detected
Tetrachloroethene	10	2300	69	16000
1,2-Dibromoethane (EDB)	10	Not Detected	78	Not Detected
Chlorobenzene	10	Not Detected	47	Not Detected
Ethyl Benzene	10	Not Detected	44	Not Detected
m,p-Xylene	10	Not Detected	44	Not Detected
o-Xylene	10	Not Detected	44	Not Detected
Styrene	10	Not Detected	43	Not Detected
1,1,2,2-Tetrachloroethane	10	Not Detected	70	Not Detected
1,3,5-Trimethylbenzene	10	Not Detected	50	Not Detected
1,2,4-Trimethylbenzene	10	Not Detected	50	Not Detected
1,3-Dichlorobenzene	10	Not Detected	61	Not Detected
1,4-Dichlorobenzene	10	Not Detected	61	Not Detected
alpha-Chlorotoluene	10	Not Detected	53	Not Detected
1,2-Dichlorobenzene	10	Not Detected	61	Not Detected
1,2,4-Trichlorobenzene	41	Not Detected	300	Not Detected
Hexachlorobutadiene	41	Not Detected	440	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: Influent

Lab ID#: 1707241-01A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	a071907	Date of Collection: 7/11/17 11:50:00 AM
Dil. Factor:	20.4	Date of Analysis: 7/19/17 02:37 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: Effluent

Lab ID#: 1707241-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a071908	Date of Collection:	7/11/17 11:45:00 AM
Dil. Factor:	5.36	Date of Analysis:	7/19/17 03:02 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2.7	Not Detected	13	Not Detected
Freon 114	2.7	Not Detected	19	Not Detected
Chloromethane	27	Not Detected	55	Not Detected
Vinyl Chloride	2.7	2.9	6.8	7.5
Bromomethane	27	Not Detected	100	Not Detected
Chloroethane	11	Not Detected	28	Not Detected
Freon 11	2.7	Not Detected	15	Not Detected
Freon 113	2.7	Not Detected	20	Not Detected
1,1-Dichloroethene	2.7	Not Detected	11	Not Detected
Methylene Chloride	27	Not Detected	93	Not Detected
Methyl tert-butyl ether	11	Not Detected	39	Not Detected
1,1-Dichloroethane	2.7	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	2.7	770	11	3000
Chloroform	2.7	Not Detected	13	Not Detected
1,1,1-Trichloroethane	2.7	Not Detected	15	Not Detected
Carbon Tetrachloride	2.7	Not Detected	17	Not Detected
Benzene	2.7	Not Detected	8.6	Not Detected
1,2-Dichloroethane	2.7	Not Detected	11	Not Detected
Trichloroethene	2.7	430	14	2300
1,2-Dichloropropane	2.7	Not Detected	12	Not Detected
cis-1,3-Dichloropropene	2.7	Not Detected	12	Not Detected
Toluene	2.7	Not Detected	10	Not Detected
trans-1,3-Dichloropropene	2.7	Not Detected	12	Not Detected
1,1,2-Trichloroethane	2.7	Not Detected	15	Not Detected
Tetrachloroethene	2.7	280	18	1900
1,2-Dibromoethane (EDB)	2.7	Not Detected	20	Not Detected
Chlorobenzene	2.7	Not Detected	12	Not Detected
Ethyl Benzene	2.7	Not Detected	12	Not Detected
m,p-Xylene	2.7	Not Detected	12	Not Detected
o-Xylene	2.7	Not Detected	12	Not Detected
Styrene	2.7	Not Detected	11	Not Detected
1,1,2,2-Tetrachloroethane	2.7	Not Detected	18	Not Detected
1,3,5-Trimethylbenzene	2.7	Not Detected	13	Not Detected
1,2,4-Trimethylbenzene	2.7	Not Detected	13	Not Detected
1,3-Dichlorobenzene	2.7	Not Detected	16	Not Detected
1,4-Dichlorobenzene	2.7	Not Detected	16	Not Detected
alpha-Chlorotoluene	2.7	Not Detected	14	Not Detected
1,2-Dichlorobenzene	2.7	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	11	Not Detected	80	Not Detected
Hexachlorobutadiene	11	Not Detected	110	Not Detected

Container Type: 1 Liter Summa Canister





Air Toxics

Client Sample ID: Effluent

Lab ID#: 1707241-02A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	a071908	Date of Collection: 7/11/17 11:45:00 AM
Dil. Factor:	5.36	Date of Analysis: 7/19/17 03:02 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1707241-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a071906	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	7/19/17 11:24 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1707241-03A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	a071906	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/19/17 11:24 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1707241-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a071902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/19/17 09:22 AM

Compound	%Recovery
Freon 12	92
Freon 114	89
Chloromethane	108
Vinyl Chloride	98
Bromomethane	92
Chloroethane	97
Freon 11	92
Freon 113	89
1,1-Dichloroethene	92
Methylene Chloride	104
Methyl tert-butyl ether	92
1,1-Dichloroethane	96
cis-1,2-Dichloroethene	96
Chloroform	93
1,1,1-Trichloroethane	89
Carbon Tetrachloride	92
Benzene	93
1,2-Dichloroethane	96
Trichloroethene	91
1,2-Dichloropropane	98
cis-1,3-Dichloropropene	105
Toluene	94
trans-1,3-Dichloropropene	99
1,1,2-Trichloroethane	96
Tetrachloroethene	90
1,2-Dibromoethane (EDB)	93
Chlorobenzene	95
Ethyl Benzene	96
m,p-Xylene	101
o-Xylene	102
Styrene	100
1,1,2,2-Tetrachloroethane	103
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	94
1,3-Dichlorobenzene	93
1,4-Dichlorobenzene	93
alpha-Chlorotoluene	98
1,2-Dichlorobenzene	90
1,2,4-Trichlorobenzene	86
Hexachlorobutadiene	85

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1707241-04A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	a071902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/19/17 09:22 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	103	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1707241-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a071903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/19/17 09:47 AM

Compound	%Recovery	Method Limits
Freon 12	96	70-130
Freon 114	95	70-130
Chloromethane	112	70-130
Vinyl Chloride	102	70-130
Bromomethane	97	70-130
Chloroethane	105	70-130
Freon 11	98	70-130
Freon 113	90	70-130
1,1-Dichloroethene	99	70-130
Methylene Chloride	109	70-130
Methyl tert-butyl ether	94	70-130
1,1-Dichloroethane	101	70-130
cis-1,2-Dichloroethene	121	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	91	70-130
Carbon Tetrachloride	94	70-130
Benzene	97	70-130
1,2-Dichloroethane	96	70-130
Trichloroethene	94	70-130
1,2-Dichloropropane	101	70-130
cis-1,3-Dichloropropene	99	70-130
Toluene	94	70-130
trans-1,3-Dichloropropene	103	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	96	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	97	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	105	70-130
o-Xylene	106	70-130
Styrene	104	70-130
1,1,2,2-Tetrachloroethane	107	70-130
1,3,5-Trimethylbenzene	101	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	97	70-130
1,4-Dichlorobenzene	96	70-130
alpha-Chlorotoluene	106	70-130
1,2-Dichlorobenzene	95	70-130
1,2,4-Trichlorobenzene	94	70-130
Hexachlorobutadiene	91	70-130

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1707241-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a071903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/19/17 09:47 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	99	70-130





Air Toxics

Client Sample ID: LCSD

Lab ID#: 1707241-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a071904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/19/17 10:12 AM

Compound	%Recovery	Method Limits
Freon 12	94	70-130
Freon 114	94	70-130
Chloromethane	106	70-130
Vinyl Chloride	101	70-130
Bromomethane	96	70-130
Chloroethane	100	70-130
Freon 11	96	70-130
Freon 113	90	70-130
1,1-Dichloroethene	98	70-130
Methylene Chloride	105	70-130
Methyl tert-butyl ether	93	70-130
1,1-Dichloroethane	96	70-130
cis-1,2-Dichloroethene	120	70-130
Chloroform	93	70-130
1,1,1-Trichloroethane	89	70-130
Carbon Tetrachloride	91	70-130
Benzene	95	70-130
1,2-Dichloroethane	95	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	100	70-130
cis-1,3-Dichloropropene	100	70-130
Toluene	94	70-130
trans-1,3-Dichloropropene	97	70-130
1,1,2-Trichloroethane	97	70-130
Tetrachloroethene	91	70-130
1,2-Dibromoethane (EDB)	91	70-130
Chlorobenzene	92	70-130
Ethyl Benzene	95	70-130
m,p-Xylene	100	70-130
o-Xylene	104	70-130
Styrene	100	70-130
1,1,2,2-Tetrachloroethane	102	70-130
1,3,5-Trimethylbenzene	95	70-130
1,2,4-Trimethylbenzene	94	70-130
1,3-Dichlorobenzene	93	70-130
1,4-Dichlorobenzene	91	70-130
alpha-Chlorotoluene	100	70-130
1,2-Dichlorobenzene	92	70-130
1,2,4-Trichlorobenzene	90	70-130
Hexachlorobutadiene	88	70-130

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1707241-05AA

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	a071904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 7/19/17 10:12 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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FOLSOM, CA 95630-4719  
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Alina Satkosi  
Collected by: (Print and Sign) Alina Satkosi Alina Satkosi  
Company MCC Email \_\_\_\_\_  
Address 201 Waukesha St. City Madison State WI Zip 53704  
Phone 608 242 5200 Fax \_\_\_\_\_

Project Info: P.O. # <u>107418</u> Project # _____ Project Name <u>GETS/SVE</u>	Turn Around Time: <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush specify _____	Lab Use Only Pressurized by: _____ Date: _____ Pressurization Gas: _____ N <sub>2</sub> He
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Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
<u>01A</u>	<u>Influent</u>	<u>1L2294</u>	<u>7/11/17</u>	<u>1150</u>	<u>TD-15</u>	<u>-29</u>	<u>-6</u>		
<u>02A</u>	<u>Effluent</u>	<u>1L2889</u>	<u>7/11/17</u>	<u>1145</u>	<u>TD-15</u>	<u>-18</u>	<u>-5</u>		

Relinquished by: (signature) <u>Alina Satkosi</u> Date/Time <u>7/11/17 1200</u>	Received by: (signature) <u>Alina Satkosi</u> Date/Time <u>7/11/17 1115</u>	Notes:
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>UPS</u>		<u>NA</u>	<u>Good</u>	Yes No <u>None</u>	<u>1707242</u>

8/23/2017

Ms. Alina Satkoski  
Madison-Kipp Corporation  
201 Waubesa Street

Madison WI 53704

Project Name: GETS/SVE

Project #:

Workorder #: 1708203

Dear Ms. Alina Satkoski

The following report includes the data for the above referenced project for sample(s) received on 8/11/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

**WORK ORDER #: 1708203**

Work Order Summary

<b>CLIENT:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704	<b>BILL TO:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704
<b>PHONE:</b>	608-244-3511	<b>P.O. #</b>	107418
<b>FAX:</b>		<b>PROJECT #</b>	GETS/SVE
<b>DATE RECEIVED:</b>	08/11/2017	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	08/23/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	Influent	TO-15	5.7 "Hg	15 psi
02A	Effluent	TO-15	1.6 "Hg	14.9 psi
03A	Lab Blank	TO-15	NA	NA
04A	CCV	TO-15	NA	NA
05A	LCS	TO-15	NA	NA
05AA	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 08/23/17

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**Madison-Kipp Corporation**  
**Workorder# 1708203**

Two 1 Liter Summa Canister samples were received on August 11, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

Dilution was performed on samples Influent and Effluent due to the presence of high level target species.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: Influent**

**Lab ID#: 1708203-01A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
cis-1,2-Dichloroethene	12	730	49	2900
Trichloroethene	12	570	67	3100
Tetrachloroethene	12	2700	84	18000

**Client Sample ID: Effluent**

**Lab ID#: 1708203-02A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	4.2	4.5	11	11
cis-1,2-Dichloroethene	4.2	470	17	1900
Trichloroethene	4.2	700	23	3700
Tetrachloroethene	4.2	260	29	1800





Air Toxics

Client Sample ID: Influent

Lab ID#: 1708203-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081513	Date of Collection:	8/7/17 8:10:00 AM
Dil. Factor:	24.9	Date of Analysis:	8/15/17 07:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	12	Not Detected	62	Not Detected
Freon 114	12	Not Detected	87	Not Detected
Chloromethane	120	Not Detected	260	Not Detected
Vinyl Chloride	12	Not Detected	32	Not Detected
Bromomethane	120	Not Detected	480	Not Detected
Chloroethane	50	Not Detected	130	Not Detected
Freon 11	12	Not Detected	70	Not Detected
Freon 113	12	Not Detected	95	Not Detected
1,1-Dichloroethene	12	Not Detected	49	Not Detected
Methylene Chloride	120	Not Detected	430	Not Detected
Methyl tert-butyl ether	50	Not Detected	180	Not Detected
1,1-Dichloroethane	12	Not Detected	50	Not Detected
cis-1,2-Dichloroethene	12	730	49	2900
Chloroform	12	Not Detected	61	Not Detected
1,1,1-Trichloroethane	12	Not Detected	68	Not Detected
Carbon Tetrachloride	12	Not Detected	78	Not Detected
Benzene	12	Not Detected	40	Not Detected
1,2-Dichloroethane	12	Not Detected	50	Not Detected
Trichloroethene	12	570	67	3100
1,2-Dichloropropane	12	Not Detected	58	Not Detected
cis-1,3-Dichloropropene	12	Not Detected	56	Not Detected
Toluene	12	Not Detected	47	Not Detected
trans-1,3-Dichloropropene	12	Not Detected	56	Not Detected
1,1,2-Trichloroethane	12	Not Detected	68	Not Detected
Tetrachloroethene	12	2700	84	18000
1,2-Dibromoethane (EDB)	12	Not Detected	96	Not Detected
Chlorobenzene	12	Not Detected	57	Not Detected
Ethyl Benzene	12	Not Detected	54	Not Detected
m,p-Xylene	12	Not Detected	54	Not Detected
o-Xylene	12	Not Detected	54	Not Detected
Styrene	12	Not Detected	53	Not Detected
1,1,2,2-Tetrachloroethane	12	Not Detected	85	Not Detected
1,3,5-Trimethylbenzene	12	Not Detected	61	Not Detected
1,2,4-Trimethylbenzene	12	Not Detected	61	Not Detected
1,3-Dichlorobenzene	12	Not Detected	75	Not Detected
1,4-Dichlorobenzene	12	Not Detected	75	Not Detected
alpha-Chlorotoluene	12	Not Detected	64	Not Detected
1,2-Dichlorobenzene	12	Not Detected	75	Not Detected
1,2,4-Trichlorobenzene	50	Not Detected	370	Not Detected
Hexachlorobutadiene	50	Not Detected	530	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: Influent

Lab ID#: 1708203-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081513	Date of Collection:	8/7/17 8:10:00 AM
Dil. Factor:	24.9	Date of Analysis:	8/15/17 07:06 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: Effluent

Lab ID#: 1708203-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081514	Date of Collection:	8/7/17 8:00:00 AM
Dil. Factor:	8.51	Date of Analysis:	8/15/17 07:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.2	Not Detected	21	Not Detected
Freon 114	4.2	Not Detected	30	Not Detected
Chloromethane	42	Not Detected	88	Not Detected
Vinyl Chloride	4.2	4.5	11	11
Bromomethane	42	Not Detected	160	Not Detected
Chloroethane	17	Not Detected	45	Not Detected
Freon 11	4.2	Not Detected	24	Not Detected
Freon 113	4.2	Not Detected	33	Not Detected
1,1-Dichloroethene	4.2	Not Detected	17	Not Detected
Methylene Chloride	42	Not Detected	150	Not Detected
Methyl tert-butyl ether	17	Not Detected	61	Not Detected
1,1-Dichloroethane	4.2	Not Detected	17	Not Detected
cis-1,2-Dichloroethene	4.2	470	17	1900
Chloroform	4.2	Not Detected	21	Not Detected
1,1,1-Trichloroethane	4.2	Not Detected	23	Not Detected
Carbon Tetrachloride	4.2	Not Detected	27	Not Detected
Benzene	4.2	Not Detected	14	Not Detected
1,2-Dichloroethane	4.2	Not Detected	17	Not Detected
Trichloroethene	4.2	700	23	3700
1,2-Dichloropropane	4.2	Not Detected	20	Not Detected
cis-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
Toluene	4.2	Not Detected	16	Not Detected
trans-1,3-Dichloropropene	4.2	Not Detected	19	Not Detected
1,1,2-Trichloroethane	4.2	Not Detected	23	Not Detected
Tetrachloroethene	4.2	260	29	1800
1,2-Dibromoethane (EDB)	4.2	Not Detected	33	Not Detected
Chlorobenzene	4.2	Not Detected	20	Not Detected
Ethyl Benzene	4.2	Not Detected	18	Not Detected
m,p-Xylene	4.2	Not Detected	18	Not Detected
o-Xylene	4.2	Not Detected	18	Not Detected
Styrene	4.2	Not Detected	18	Not Detected
1,1,2,2-Tetrachloroethane	4.2	Not Detected	29	Not Detected
1,3,5-Trimethylbenzene	4.2	Not Detected	21	Not Detected
1,2,4-Trimethylbenzene	4.2	Not Detected	21	Not Detected
1,3-Dichlorobenzene	4.2	Not Detected	26	Not Detected
1,4-Dichlorobenzene	4.2	Not Detected	26	Not Detected
alpha-Chlorotoluene	4.2	Not Detected	22	Not Detected
1,2-Dichlorobenzene	4.2	Not Detected	26	Not Detected
1,2,4-Trichlorobenzene	17	Not Detected	130	Not Detected
Hexachlorobutadiene	17	Not Detected	180	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: Effluent

Lab ID#: 1708203-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081514	Date of Collection:	8/7/17 8:00:00 AM
Dil. Factor:	8.51	Date of Analysis:	8/15/17 07:31 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1708203-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081507	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/15/17 01:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1708203-03A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	p081507	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/15/17 01:27 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1708203-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081505	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/15/17 12:37 PM

Compound	%Recovery
Freon 12	111
Freon 114	104
Chloromethane	106
Vinyl Chloride	110
Bromomethane	107
Chloroethane	107
Freon 11	109
Freon 113	100
1,1-Dichloroethene	97
Methylene Chloride	110
Methyl tert-butyl ether	97
1,1-Dichloroethane	106
cis-1,2-Dichloroethene	100
Chloroform	107
1,1,1-Trichloroethane	101
Carbon Tetrachloride	99
Benzene	101
1,2-Dichloroethane	103
Trichloroethene	98
1,2-Dichloropropane	96
cis-1,3-Dichloropropene	102
Toluene	98
trans-1,3-Dichloropropene	102
1,1,2-Trichloroethane	102
Tetrachloroethene	100
1,2-Dibromoethane (EDB)	103
Chlorobenzene	101
Ethyl Benzene	96
m,p-Xylene	96
o-Xylene	95
Styrene	93
1,1,2,2-Tetrachloroethane	96
1,3,5-Trimethylbenzene	95
1,2,4-Trimethylbenzene	94
1,3-Dichlorobenzene	97
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	93
1,2-Dichlorobenzene	96
1,2,4-Trichlorobenzene	94
Hexachlorobutadiene	97

Container Type: NA - Not Applicable



Client Sample ID: CCV

Lab ID#: 1708203-04A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081505	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/15/17 12:37 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCS

Lab ID#: 1708203-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/15/17 11:08 AM

Compound	%Recovery	Method Limits
Freon 12	113	70-130
Freon 114	112	70-130
Chloromethane	85	70-130
Vinyl Chloride	122	70-130
Bromomethane	107	70-130
Chloroethane	111	70-130
Freon 11	113	70-130
Freon 113	101	70-130
1,1-Dichloroethene	99	70-130
Methylene Chloride	110	70-130
Methyl tert-butyl ether	98	70-130
1,1-Dichloroethane	107	70-130
cis-1,2-Dichloroethene	112	70-130
Chloroform	108	70-130
1,1,1-Trichloroethane	101	70-130
Carbon Tetrachloride	101	70-130
Benzene	105	70-130
1,2-Dichloroethane	109	70-130
Trichloroethene	105	70-130
1,2-Dichloropropane	101	70-130
cis-1,3-Dichloropropene	99	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	104	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	104	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	96	70-130
o-Xylene	97	70-130
Styrene	90	70-130
1,1,2,2-Tetrachloroethane	98	70-130
1,3,5-Trimethylbenzene	94	70-130
1,2,4-Trimethylbenzene	91	70-130
1,3-Dichlorobenzene	99	70-130
1,4-Dichlorobenzene	99	70-130
alpha-Chlorotoluene	89	70-130
1,2-Dichlorobenzene	98	70-130
1,2,4-Trichlorobenzene	98	70-130
Hexachlorobutadiene	101	70-130

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1708203-05A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	p081503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/15/17 11:08 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1708203-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p081504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/15/17 11:34 AM

Compound	%Recovery	Method Limits
Freon 12	115	70-130
Freon 114	114	70-130
Chloromethane	86	70-130
Vinyl Chloride	133 Q	70-130
Bromomethane	106	70-130
Chloroethane	111	70-130
Freon 11	115	70-130
Freon 113	102	70-130
1,1-Dichloroethene	101	70-130
Methylene Chloride	111	70-130
Methyl tert-butyl ether	99	70-130
1,1-Dichloroethane	108	70-130
cis-1,2-Dichloroethene	114	70-130
Chloroform	109	70-130
1,1,1-Trichloroethane	103	70-130
Carbon Tetrachloride	101	70-130
Benzene	104	70-130
1,2-Dichloroethane	106	70-130
Trichloroethene	104	70-130
1,2-Dichloropropane	101	70-130
cis-1,3-Dichloropropene	97	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	103	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	102	70-130
1,2-Dibromoethane (EDB)	104	70-130
Chlorobenzene	100	70-130
Ethyl Benzene	97	70-130
m,p-Xylene	97	70-130
o-Xylene	97	70-130
Styrene	90	70-130
1,1,2,2-Tetrachloroethane	97	70-130
1,3,5-Trimethylbenzene	92	70-130
1,2,4-Trimethylbenzene	93	70-130
1,3-Dichlorobenzene	100	70-130
1,4-Dichlorobenzene	100	70-130
alpha-Chlorotoluene	88	70-130
1,2-Dichlorobenzene	99	70-130
1,2,4-Trichlorobenzene	100	70-130
Hexachlorobutadiene	104	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1708203-05AA

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	p081504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/15/17 11:34 AM

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	101	70-130

**Sample Transportation Notice**

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B  
FOLSOM, CA 95630-4719  
(916) 985-1000 FAX (916) 985-1020

Project Manager Alina Satkosi  
 Collected by: (Print and Sign) Alina Satkosi Alina Satkosi  
 Company MRC Email asatkosi@madison-kipp.com  
 Address 201 Waubesa St. City Madison State WI Zip 53704  
 Phone 6082425200 Fax -

<b>Project Info:</b> P.O. # <u>107418</u> Project # _____ Project Name <u>GETS/SVE</u>	<b>Turn Around Time:</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush specify _____	<i>Lab Use Only</i> Pressurized by: _____ Date: _____ Pressurization Gas: _____ N <sub>2</sub> He
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Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
<u>01A</u>	<u>Influent</u>	<u>3036</u>	<u>8/7/17</u>	<u>810</u>	<u>TO-15</u>	<u>-26</u>	<u>-5</u>		
<u>02A</u>	<u>Effluent</u>	<u>40892</u>	<u>8/7/17</u>	<u>800</u>	<u>TO-15</u>	<u>-28</u>	<u>-3</u>		

Relinquished by: (signature) <u>Alina Satkosi</u> Date/Time <u>8/7/17 16:00</u>	Received by: (signature) <u>M. G. EATL</u> Date/Time <u>8/8/17 08:1030</u>	<b>Notes:</b>
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

<b>Lab Use Only</b>	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>UPS</u>		<u>NA</u>	<u>GOOD</u>	Yes No <u>None</u>	<u>1708203</u>

10/2/2017

Ms. Alina Satkoski  
Madison-Kipp Corporation  
201 Waubesa Street

Madison WI 53704

Project Name: SVE  
Project #:  
Workorder #: 1709370

Dear Ms. Alina Satkoski

The following report includes the data for the above referenced project for sample(s) received on 9/20/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott  
Project Manager



**WORK ORDER #: 1709370**

Work Order Summary

<b>CLIENT:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704	<b>BILL TO:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704
<b>PHONE:</b>	608-244-3511	<b>P.O. #</b>	107418
<b>FAX:</b>		<b>PROJECT #</b>	SVE
<b>DATE RECEIVED:</b>	09/20/2017	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	10/02/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	Combined Influent	TO-15	3.9 "Hg	14.9 psi
02A	Combined Effluent	TO-15	3.5 "Hg	15 psi
03A	GETS Influent	TO-15	7.3 "Hg	14.8 psi
04A	SVE Influent	TO-15	8.6 "Hg	15 psi
05A	SVE-2	TO-15	7.3 "Hg	15.1 psi
06A	Lab Blank	TO-15	NA	NA
07A	CCV	TO-15	NA	NA
08A	LCS	TO-15	NA	NA
08AA	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 10/02/17

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**Madison-Kipp Corporation**  
**Workorder# 1709370**

Five 1 Liter Summa Canister samples were received on September 20, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

Dilution was performed on samples Combined Influent, Combined Effluent and GETS Influent due to the presence of high level target species.

**Definition of Data Qualifying Flags**

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

## Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: Combined Influent**

**Lab ID#: 1709370-01A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	15	440	61	1700
Trichloroethene	15	490	83	2600
Tetrachloroethene	15	2900	100	20000

**Client Sample ID: Combined Effluent**

**Lab ID#: 1709370-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	4.6	5.3	12	13
cis-1,2-Dichloroethene	4.6	450	18	1800
Trichloroethene	4.6	1500	24	8000
Tetrachloroethene	4.6	230	31	1600

**Client Sample ID: GETS Influent**

**Lab ID#: 1709370-03A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	26	740	100	2900
Trichloroethene	26	920	140	5000
Tetrachloroethene	26	6000	180	41000

**Client Sample ID: SVE Influent**

**Lab ID#: 1709370-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
cis-1,2-Dichloroethene	1.4	45	5.6	180
Trichloroethene	1.4	16	7.6	85
Toluene	1.4	2.7	5.3	10
Tetrachloroethene	1.4	38	9.6	260

**Client Sample ID: SVE-2**

**Lab ID#: 1709370-05A**

**Summary of Detected Compounds**  
**EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: SVE-2**

**Lab ID#: 1709370-05A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	1.3	1.6	3.4	4.0
cis-1,2-Dichloroethene	1.3	110	5.3	430
Trichloroethene	1.3	58	7.2	310
Tetrachloroethene	1.3	130	9.1	870



Air Toxics

Client Sample ID: Combined Influent

Lab ID#: 1709370-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092206	Date of Collection:	9/14/17 7:30:00 AM
Dil. Factor:	30.8	Date of Analysis:	9/22/17 01:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	15	Not Detected	76	Not Detected
Freon 114	15	Not Detected	110	Not Detected
Chloromethane	150	Not Detected	320	Not Detected
Vinyl Chloride	15	Not Detected	39	Not Detected
Bromomethane	150	Not Detected	600	Not Detected
Chloroethane	62	Not Detected	160	Not Detected
Freon 11	15	Not Detected	86	Not Detected
Freon 113	15	Not Detected	120	Not Detected
1,1-Dichloroethene	15	Not Detected	61	Not Detected
Methylene Chloride	150	Not Detected	540	Not Detected
Methyl tert-butyl ether	62	Not Detected	220	Not Detected
1,1-Dichloroethane	15	Not Detected	62	Not Detected
cis-1,2-Dichloroethene	15	440	61	1700
Chloroform	15	Not Detected	75	Not Detected
1,1,1-Trichloroethane	15	Not Detected	84	Not Detected
Carbon Tetrachloride	15	Not Detected	97	Not Detected
Benzene	15	Not Detected	49	Not Detected
1,2-Dichloroethane	15	Not Detected	62	Not Detected
Trichloroethene	15	490	83	2600
1,2-Dichloropropane	15	Not Detected	71	Not Detected
cis-1,3-Dichloropropene	15	Not Detected	70	Not Detected
Toluene	15	Not Detected	58	Not Detected
trans-1,3-Dichloropropene	15	Not Detected	70	Not Detected
1,1,2-Trichloroethane	15	Not Detected	84	Not Detected
Tetrachloroethene	15	2900	100	20000
1,2-Dibromoethane (EDB)	15	Not Detected	120	Not Detected
Chlorobenzene	15	Not Detected	71	Not Detected
Ethyl Benzene	15	Not Detected	67	Not Detected
m,p-Xylene	15	Not Detected	67	Not Detected
o-Xylene	15	Not Detected	67	Not Detected
Styrene	15	Not Detected	66	Not Detected
1,1,2,2-Tetrachloroethane	15	Not Detected	100	Not Detected
1,3,5-Trimethylbenzene	15	Not Detected	76	Not Detected
1,2,4-Trimethylbenzene	15	Not Detected	76	Not Detected
1,3-Dichlorobenzene	15	Not Detected	92	Not Detected
1,4-Dichlorobenzene	15	Not Detected	92	Not Detected
alpha-Chlorotoluene	15	Not Detected	80	Not Detected
1,2-Dichlorobenzene	15	Not Detected	92	Not Detected
1,2,4-Trichlorobenzene	62	Not Detected	460	Not Detected
Hexachlorobutadiene	62	Not Detected	660	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: Combined Influent

Lab ID#: 1709370-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092206	Date of Collection: 9/14/17 7:30:00 AM
Dil. Factor:	30.8	Date of Analysis: 9/22/17 01:03 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: Combined Effluent

Lab ID#: 1709370-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092207	Date of Collection:	9/14/17 7:35:00 AM
Dil. Factor:	9.15	Date of Analysis:	9/22/17 01:28 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.6	Not Detected	23	Not Detected
Freon 114	4.6	Not Detected	32	Not Detected
Chloromethane	46	Not Detected	94	Not Detected
Vinyl Chloride	4.6	5.3	12	13
Bromomethane	46	Not Detected	180	Not Detected
Chloroethane	18	Not Detected	48	Not Detected
Freon 11	4.6	Not Detected	26	Not Detected
Freon 113	4.6	Not Detected	35	Not Detected
1,1-Dichloroethene	4.6	Not Detected	18	Not Detected
Methylene Chloride	46	Not Detected	160	Not Detected
Methyl tert-butyl ether	18	Not Detected	66	Not Detected
1,1-Dichloroethane	4.6	Not Detected	18	Not Detected
cis-1,2-Dichloroethene	4.6	450	18	1800
Chloroform	4.6	Not Detected	22	Not Detected
1,1,1-Trichloroethane	4.6	Not Detected	25	Not Detected
Carbon Tetrachloride	4.6	Not Detected	29	Not Detected
Benzene	4.6	Not Detected	15	Not Detected
1,2-Dichloroethane	4.6	Not Detected	18	Not Detected
Trichloroethene	4.6	1500	24	8000
1,2-Dichloropropane	4.6	Not Detected	21	Not Detected
cis-1,3-Dichloropropene	4.6	Not Detected	21	Not Detected
Toluene	4.6	Not Detected	17	Not Detected
trans-1,3-Dichloropropene	4.6	Not Detected	21	Not Detected
1,1,2-Trichloroethane	4.6	Not Detected	25	Not Detected
Tetrachloroethene	4.6	230	31	1600
1,2-Dibromoethane (EDB)	4.6	Not Detected	35	Not Detected
Chlorobenzene	4.6	Not Detected	21	Not Detected
Ethyl Benzene	4.6	Not Detected	20	Not Detected
m,p-Xylene	4.6	Not Detected	20	Not Detected
o-Xylene	4.6	Not Detected	20	Not Detected
Styrene	4.6	Not Detected	19	Not Detected
1,1,2,2-Tetrachloroethane	4.6	Not Detected	31	Not Detected
1,3,5-Trimethylbenzene	4.6	Not Detected	22	Not Detected
1,2,4-Trimethylbenzene	4.6	Not Detected	22	Not Detected
1,3-Dichlorobenzene	4.6	Not Detected	28	Not Detected
1,4-Dichlorobenzene	4.6	Not Detected	28	Not Detected
alpha-Chlorotoluene	4.6	Not Detected	24	Not Detected
1,2-Dichlorobenzene	4.6	Not Detected	28	Not Detected
1,2,4-Trichlorobenzene	18	Not Detected	140	Not Detected
Hexachlorobutadiene	18	Not Detected	200	Not Detected

Container Type: 1 Liter Summa Canister





Air Toxics

Client Sample ID: Combined Effluent

Lab ID#: 1709370-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092207	Date of Collection: 9/14/17 7:35:00 AM
Dil. Factor:	9.15	Date of Analysis: 9/22/17 01:28 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	87	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: GETS Influent

Lab ID#: 1709370-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092208	Date of Collection:	9/14/17 7:40:00 AM
Dil. Factor:	53.0	Date of Analysis:	9/22/17 01:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	26	Not Detected	130	Not Detected
Freon 114	26	Not Detected	180	Not Detected
Chloromethane	260	Not Detected	550	Not Detected
Vinyl Chloride	26	Not Detected	68	Not Detected
Bromomethane	260	Not Detected	1000	Not Detected
Chloroethane	110	Not Detected	280	Not Detected
Freon 11	26	Not Detected	150	Not Detected
Freon 113	26	Not Detected	200	Not Detected
1,1-Dichloroethene	26	Not Detected	100	Not Detected
Methylene Chloride	260	Not Detected	920	Not Detected
Methyl tert-butyl ether	110	Not Detected	380	Not Detected
1,1-Dichloroethane	26	Not Detected	110	Not Detected
cis-1,2-Dichloroethene	26	740	100	2900
Chloroform	26	Not Detected	130	Not Detected
1,1,1-Trichloroethane	26	Not Detected	140	Not Detected
Carbon Tetrachloride	26	Not Detected	170	Not Detected
Benzene	26	Not Detected	85	Not Detected
1,2-Dichloroethane	26	Not Detected	110	Not Detected
Trichloroethene	26	920	140	5000
1,2-Dichloropropane	26	Not Detected	120	Not Detected
cis-1,3-Dichloropropene	26	Not Detected	120	Not Detected
Toluene	26	Not Detected	100	Not Detected
trans-1,3-Dichloropropene	26	Not Detected	120	Not Detected
1,1,2-Trichloroethane	26	Not Detected	140	Not Detected
Tetrachloroethene	26	6000	180	41000
1,2-Dibromoethane (EDB)	26	Not Detected	200	Not Detected
Chlorobenzene	26	Not Detected	120	Not Detected
Ethyl Benzene	26	Not Detected	120	Not Detected
m,p-Xylene	26	Not Detected	120	Not Detected
o-Xylene	26	Not Detected	120	Not Detected
Styrene	26	Not Detected	110	Not Detected
1,1,2,2-Tetrachloroethane	26	Not Detected	180	Not Detected
1,3,5-Trimethylbenzene	26	Not Detected	130	Not Detected
1,2,4-Trimethylbenzene	26	Not Detected	130	Not Detected
1,3-Dichlorobenzene	26	Not Detected	160	Not Detected
1,4-Dichlorobenzene	26	Not Detected	160	Not Detected
alpha-Chlorotoluene	26	Not Detected	140	Not Detected
1,2-Dichlorobenzene	26	Not Detected	160	Not Detected
1,2,4-Trichlorobenzene	110	Not Detected	790	Not Detected
Hexachlorobutadiene	110	Not Detected	1100	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: GETS Influent

Lab ID#: 1709370-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092208	Date of Collection:	9/14/17 7:40:00 AM
Dil. Factor:	53.0	Date of Analysis:	9/22/17 01:52 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: SVE Influent

Lab ID#: 1709370-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092210	Date of Collection:	9/14/17 9:35:00 AM
Dil. Factor:	2.83	Date of Analysis:	9/22/17 02:46 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.4	Not Detected	7.0	Not Detected
Freon 114	1.4	Not Detected	9.9	Not Detected
Chloromethane	14	Not Detected	29	Not Detected
Vinyl Chloride	1.4	Not Detected	3.6	Not Detected
Bromomethane	14	Not Detected	55	Not Detected
Chloroethane	5.7	Not Detected	15	Not Detected
Freon 11	1.4	Not Detected	8.0	Not Detected
Freon 113	1.4	Not Detected	11	Not Detected
1,1-Dichloroethene	1.4	Not Detected	5.6	Not Detected
Methylene Chloride	14	Not Detected	49	Not Detected
Methyl tert-butyl ether	5.7	Not Detected	20	Not Detected
1,1-Dichloroethane	1.4	Not Detected	5.7	Not Detected
cis-1,2-Dichloroethene	1.4	45	5.6	180
Chloroform	1.4	Not Detected	6.9	Not Detected
1,1,1-Trichloroethane	1.4	Not Detected	7.7	Not Detected
Carbon Tetrachloride	1.4	Not Detected	8.9	Not Detected
Benzene	1.4	Not Detected	4.5	Not Detected
1,2-Dichloroethane	1.4	Not Detected	5.7	Not Detected
Trichloroethene	1.4	16	7.6	85
1,2-Dichloropropane	1.4	Not Detected	6.5	Not Detected
cis-1,3-Dichloropropene	1.4	Not Detected	6.4	Not Detected
Toluene	1.4	2.7	5.3	10
trans-1,3-Dichloropropene	1.4	Not Detected	6.4	Not Detected
1,1,2-Trichloroethane	1.4	Not Detected	7.7	Not Detected
Tetrachloroethene	1.4	38	9.6	260
1,2-Dibromoethane (EDB)	1.4	Not Detected	11	Not Detected
Chlorobenzene	1.4	Not Detected	6.5	Not Detected
Ethyl Benzene	1.4	Not Detected	6.1	Not Detected
m,p-Xylene	1.4	Not Detected	6.1	Not Detected
o-Xylene	1.4	Not Detected	6.1	Not Detected
Styrene	1.4	Not Detected	6.0	Not Detected
1,1,2,2-Tetrachloroethane	1.4	Not Detected	9.7	Not Detected
1,3,5-Trimethylbenzene	1.4	Not Detected	7.0	Not Detected
1,2,4-Trimethylbenzene	1.4	Not Detected	7.0	Not Detected
1,3-Dichlorobenzene	1.4	Not Detected	8.5	Not Detected
1,4-Dichlorobenzene	1.4	Not Detected	8.5	Not Detected
alpha-Chlorotoluene	1.4	Not Detected	7.3	Not Detected
1,2-Dichlorobenzene	1.4	Not Detected	8.5	Not Detected
1,2,4-Trichlorobenzene	5.7	Not Detected	42	Not Detected
Hexachlorobutadiene	5.7	Not Detected	60	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: SVE Influent

Lab ID#: 1709370-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092210	Date of Collection:	9/14/17 9:35:00 AM
Dil. Factor:	2.83	Date of Analysis:	9/22/17 02:46 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: SVE-2

Lab ID#: 1709370-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092211	Date of Collection:	9/14/17 8:45:00 AM
Dil. Factor:	2.68	Date of Analysis:	9/22/17 03:13 PM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.3	Not Detected	6.6	Not Detected
Freon 114	1.3	Not Detected	9.4	Not Detected
Chloromethane	13	Not Detected	28	Not Detected
Vinyl Chloride	1.3	1.6	3.4	4.0
Bromomethane	13	Not Detected	52	Not Detected
Chloroethane	5.4	Not Detected	14	Not Detected
Freon 11	1.3	Not Detected	7.5	Not Detected
Freon 113	1.3	Not Detected	10	Not Detected
1,1-Dichloroethene	1.3	Not Detected	5.3	Not Detected
Methylene Chloride	13	Not Detected	46	Not Detected
Methyl tert-butyl ether	5.4	Not Detected	19	Not Detected
1,1-Dichloroethane	1.3	Not Detected	5.4	Not Detected
cis-1,2-Dichloroethene	1.3	110	5.3	430
Chloroform	1.3	Not Detected	6.5	Not Detected
1,1,1-Trichloroethane	1.3	Not Detected	7.3	Not Detected
Carbon Tetrachloride	1.3	Not Detected	8.4	Not Detected
Benzene	1.3	Not Detected	4.3	Not Detected
1,2-Dichloroethane	1.3	Not Detected	5.4	Not Detected
Trichloroethene	1.3	58	7.2	310
1,2-Dichloropropane	1.3	Not Detected	6.2	Not Detected
cis-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected
Toluene	1.3	Not Detected	5.0	Not Detected
trans-1,3-Dichloropropene	1.3	Not Detected	6.1	Not Detected
1,1,2-Trichloroethane	1.3	Not Detected	7.3	Not Detected
Tetrachloroethene	1.3	130	9.1	870
1,2-Dibromoethane (EDB)	1.3	Not Detected	10	Not Detected
Chlorobenzene	1.3	Not Detected	6.2	Not Detected
Ethyl Benzene	1.3	Not Detected	5.8	Not Detected
m,p-Xylene	1.3	Not Detected	5.8	Not Detected
o-Xylene	1.3	Not Detected	5.8	Not Detected
Styrene	1.3	Not Detected	5.7	Not Detected
1,1,2,2-Tetrachloroethane	1.3	Not Detected	9.2	Not Detected
1,3,5-Trimethylbenzene	1.3	Not Detected	6.6	Not Detected
1,2,4-Trimethylbenzene	1.3	Not Detected	6.6	Not Detected
1,3-Dichlorobenzene	1.3	Not Detected	8.0	Not Detected
1,4-Dichlorobenzene	1.3	Not Detected	8.0	Not Detected
alpha-Chlorotoluene	1.3	Not Detected	6.9	Not Detected
1,2-Dichlorobenzene	1.3	Not Detected	8.0	Not Detected
1,2,4-Trichlorobenzene	5.4	Not Detected	40	Not Detected
Hexachlorobutadiene	5.4	Not Detected	57	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: SVE-2

Lab ID#: 1709370-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092211	Date of Collection:	9/14/17 8:45:00 AM
Dil. Factor:	2.68	Date of Analysis:	9/22/17 03:13 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	93	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1709370-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092205	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	9/22/17 10:37 AM

Compound	Rot. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable





Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1709370-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092205	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/22/17 10:37 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	94	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1709370-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/22/17 08:40 AM

Compound	%Recovery
Freon 12	84
Freon 114	92
Chloromethane	86
Vinyl Chloride	86
Bromomethane	94
Chloroethane	86
Freon 11	84
Freon 113	92
1,1-Dichloroethene	85
Methylene Chloride	86
Methyl tert-butyl ether	76
1,1-Dichloroethane	87
cis-1,2-Dichloroethene	81
Chloroform	87
1,1,1-Trichloroethane	85
Carbon Tetrachloride	89
Benzene	97
1,2-Dichloroethane	90
Trichloroethene	94
1,2-Dichloropropane	98
cis-1,3-Dichloropropene	95
Toluene	97
trans-1,3-Dichloropropene	87
1,1,2-Trichloroethane	99
Tetrachloroethene	97
1,2-Dibromoethane (EDB)	97
Chlorobenzene	97
Ethyl Benzene	97
m,p-Xylene	98
o-Xylene	94
Styrene	108
1,1,2,2-Tetrachloroethane	99
1,3,5-Trimethylbenzene	104
1,2,4-Trimethylbenzene	95
1,3-Dichlorobenzene	102
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	98
1,2-Dichlorobenzene	103
1,2,4-Trichlorobenzene	101
Hexachlorobutadiene	104

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1709370-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092202	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/22/17 08:40 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCS

Lab ID#: 1709370-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/22/17 09:20 AM

Compound	%Recovery	Method Limits
Freon 12	90	70-130
Freon 114	101	70-130
Chloromethane	89	70-130
Vinyl Chloride	94	70-130
Bromomethane	99	70-130
Chloroethane	93	70-130
Freon 11	90	70-130
Freon 113	94	70-130
1,1-Dichloroethene	88	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	78	70-130
1,1-Dichloroethane	89	70-130
cis-1,2-Dichloroethene	91	70-130
Chloroform	90	70-130
1,1,1-Trichloroethane	88	70-130
Carbon Tetrachloride	91	70-130
Benzene	102	70-130
1,2-Dichloroethane	92	70-130
Trichloroethene	101	70-130
1,2-Dichloropropane	102	70-130
cis-1,3-Dichloropropene	93	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	101	70-130
Tetrachloroethene	100	70-130
1,2-Dibromoethane (EDB)	100	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	98	70-130
m,p-Xylene	99	70-130
o-Xylene	99	70-130
Styrene	109	70-130
1,1,2,2-Tetrachloroethane	100	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	105	70-130
1,4-Dichlorobenzene	104	70-130
alpha-Chlorotoluene	103	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	106	70-130
Hexachlorobutadiene	106	70-130

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1709370-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092203	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/22/17 09:20 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	101	70-130

Client Sample ID: LCSD

Lab ID#: 1709370-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092204	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/22/17 09:45 AM

Compound	%Recovery	Method Limits
Freon 12	89	70-130
Freon 114	100	70-130
Chloromethane	90	70-130
Vinyl Chloride	93	70-130
Bromomethane	98	70-130
Chloroethane	91	70-130
Freon 11	89	70-130
Freon 113	94	70-130
1,1-Dichloroethene	88	70-130
Methylene Chloride	88	70-130
Methyl tert-butyl ether	78	70-130
1,1-Dichloroethane	89	70-130
cis-1,2-Dichloroethene	90	70-130
Chloroform	90	70-130
1,1,1-Trichloroethane	88	70-130
Carbon Tetrachloride	92	70-130
Benzene	101	70-130
1,2-Dichloroethane	92	70-130
Trichloroethene	102	70-130
1,2-Dichloropropane	100	70-130
cis-1,3-Dichloropropene	94	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	102	70-130
Tetrachloroethene	100	70-130
1,2-Dibromoethane (EDB)	100	70-130
Chlorobenzene	99	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	98	70-130
o-Xylene	99	70-130
Styrene	109	70-130
1,1,2,2-Tetrachloroethane	100	70-130
1,3,5-Trimethylbenzene	106	70-130
1,2,4-Trimethylbenzene	98	70-130
1,3-Dichlorobenzene	106	70-130
1,4-Dichlorobenzene	104	70-130
alpha-Chlorotoluene	104	70-130
1,2-Dichlorobenzene	105	70-130
1,2,4-Trichlorobenzene	109	70-130
Hexachlorobutadiene	110	70-130

Container Type: NA - Not Applicable



Air Toxics

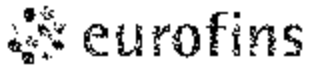
Client Sample ID: LCSD

Lab ID#: 1709370-08AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3092204	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 9/22/17 09:45 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

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Page 1 of 1

Project Manager Alina Satkasi  
 Collected by: (Print and Sign) Alina Satkasi  
 Company Madison-Kipp Email asatkasi@madison-kipp.com  
 Address 201 Waltham St. City Madison State WI Zip 53704  
 Phone 6082425200 Fax -

<b>Project Info:</b>	<b>Turn Around Time:</b>	<b>Lab Use Only:</b>
P.O. # <u>107418</u>	<input checked="" type="checkbox"/> Normal	Pressurized by:
Project # _____	<input type="checkbox"/> Rush	Date:
Project Name <u>SVEIGETS</u>	specify _____	Pressurization Gas:
		<input type="checkbox"/> N <input type="checkbox"/> He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
<u>014</u>	<u>Combined Influent</u>	<u>111505</u>	<u>9/14/17</u>	<u>730</u>	<u>TO-15</u>	<u>-27</u>	<u>-5</u>		
<u>026</u>	<u>Combined Effluent</u>	<u>30518</u>	<u>9/14/17</u>	<u>735</u>	<u>TO-15</u>	<u>-30</u>	<u>-4.5</u>		
<u>034</u>	<u>SVE Influent</u>	<u>112624</u>	<u>9/14/17</u>	<u>740</u>	<u>TO-15</u>	<u>-29.5</u>	<u>-7</u>		
<u>044</u>	<u>SVE Influent</u>	<u>112462</u>	<u>9/14/17</u>	<u>935</u>	<u>TO-15</u>	<u>-28</u>	<u>-7</u>		
<u>054</u>	<u>SVE-2</u>	<u>14817</u>	<u>9/14/17</u>	<u>845</u>	<u>TO-15</u>	<u>-25</u>	<u>-6.5</u>		

Relinquished by: (signature) <u>Alina Satkasi</u> Date/Time <u>9/14/17 12:00</u>	Received by: (signature) <u>Andy Stehn</u> Date/Time <u>09/20/17 11:25</u>	<b>Notes:</b> <u>Report to Alina Satkasi + Andy Stehn (TRC)</u>  <u>2 Boxes Shipped</u>
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

<b>Lab Use Only</b>	Shipper Name <u>CPS</u>	Air Bill # _____	Temp (°C) <u>NA</u>	Condition <u>Good</u>	Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> None	Work Order # <u>1709370</u>
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10/23/2017

Ms. Alina Satkoski  
Madison-Kipp Corporation  
201 Waubesa Street

Madison WI 53704

Project Name: GETS/SVE

Project #:

Workorder #: 1710219

Dear Ms. Alina Satkoski

The following report includes the data for the above referenced project for sample(s) received on 10/11/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

**WORK ORDER #: 1710219**

Work Order Summary

<b>CLIENT:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704	<b>BILL TO:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704
<b>PHONE:</b>	608-244-3511	<b>P.O. #</b>	107418
<b>FAX:</b>		<b>PROJECT #</b>	GETS/SVE
<b>DATE RECEIVED:</b>	10/11/2017	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	10/23/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	Combined Influent	TO-15	4.3 "Hg	14.8 psi
02A	Combined Effluent	TO-15	2 "Hg	14.4 psi
03A	GETS Influent	TO-15	3.1 "Hg	15 psi
04A	Lab Blank	TO-15	NA	NA
04B	Lab Blank	TO-15	NA	NA
05A	CCV	TO-15	NA	NA
05B	CCV	TO-15	NA	NA
06A	LCS	TO-15	NA	NA
06AA	LCSD	TO-15	NA	NA
06B	LCS	TO-15	NA	NA
06BB	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 10/23/17

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**Madison-Kipp Corporation**  
**Workorder# 1710219**

Three 1 Liter Summa Canister samples were received on October 11, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

Dilution was performed on samples Combined Influent, Combined Effluent and GETS Influent due to the presence of high level target species.

**Definition of Data Qualifying Flags**

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

## Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: Combined Influent**

**Lab ID#: 1710219-01A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
cis-1,2-Dichloroethene	4.7	280	18	1100
Trichloroethene	4.7	270	25	1400
Tetrachloroethene	4.7	1300	32	9100

**Client Sample ID: Combined Effluent**

**Lab ID#: 1710219-02A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	2.6	6.8	6.8	17
cis-1,2-Dichloroethene	2.6	720	10	2900
Trichloroethene	2.6	1000	14	5500
Tetrachloroethene	2.6	200	18	1400

**Client Sample ID: GETS Influent**

**Lab ID#: 1710219-03A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
cis-1,2-Dichloroethene	22	790	89	3100
Trichloroethene	22	900	120	4800
Tetrachloroethene	22	5700	150	39000



Air Toxics

Client Sample ID: Combined Influent

Lab ID#: 1710219-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101711	Date of Collection:	10/5/17 9:15:00 AM
Dil. Factor:	9.37	Date of Analysis:	10/17/17 05:07 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	4.7	Not Detected	23	Not Detected
Freon 114	4.7	Not Detected	33	Not Detected
Chloromethane	47	Not Detected	97	Not Detected
Vinyl Chloride	4.7	Not Detected	12	Not Detected
Bromomethane	47	Not Detected	180	Not Detected
Chloroethane	19	Not Detected	49	Not Detected
Freon 11	4.7	Not Detected	26	Not Detected
Freon 113	4.7	Not Detected	36	Not Detected
1,1-Dichloroethene	4.7	Not Detected	18	Not Detected
Methylene Chloride	47	Not Detected	160	Not Detected
Methyl tert-butyl ether	19	Not Detected	68	Not Detected
1,1-Dichloroethane	4.7	Not Detected	19	Not Detected
cis-1,2-Dichloroethene	4.7	280	18	1100
Chloroform	4.7	Not Detected	23	Not Detected
1,1,1-Trichloroethane	4.7	Not Detected	26	Not Detected
Carbon Tetrachloride	4.7	Not Detected	29	Not Detected
Benzene	4.7	Not Detected	15	Not Detected
1,2-Dichloroethane	4.7	Not Detected	19	Not Detected
Trichloroethene	4.7	270	25	1400
1,2-Dichloropropane	4.7	Not Detected	22	Not Detected
cis-1,3-Dichloropropene	4.7	Not Detected	21	Not Detected
Toluene	4.7	Not Detected	18	Not Detected
trans-1,3-Dichloropropene	4.7	Not Detected	21	Not Detected
1,1,2-Trichloroethane	4.7	Not Detected	26	Not Detected
Tetrachloroethene	4.7	1300	32	9100
1,2-Dibromoethane (EDB)	4.7	Not Detected	36	Not Detected
Chlorobenzene	4.7	Not Detected	22	Not Detected
Ethyl Benzene	4.7	Not Detected	20	Not Detected
m,p-Xylene	4.7	Not Detected	20	Not Detected
o-Xylene	4.7	Not Detected	20	Not Detected
Styrene	4.7	Not Detected	20	Not Detected
1,1,2,2-Tetrachloroethane	4.7	Not Detected	32	Not Detected
1,3,5-Trimethylbenzene	4.7	Not Detected	23	Not Detected
1,2,4-Trimethylbenzene	4.7	Not Detected	23	Not Detected
1,3-Dichlorobenzene	4.7	Not Detected	28	Not Detected
1,4-Dichlorobenzene	4.7	Not Detected	28	Not Detected
alpha-Chlorotoluene	4.7	Not Detected	24	Not Detected
1,2-Dichlorobenzene	4.7	Not Detected	28	Not Detected
1,2,4-Trichlorobenzene	19	Not Detected	140	Not Detected
Hexachlorobutadiene	19	Not Detected	200	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: Combined Influent

Lab ID#: 1710219-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101711	Date of Collection: 10/5/17 9:15:00 AM
Dil. Factor:	9.37	Date of Analysis: 10/17/17 05:07 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	83	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: Combined Effluent

Lab ID#: 1710219-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101321	Date of Collection:	10/5/17 8:25:00 AM
Dil. Factor:	5.30	Date of Analysis:	10/13/17 11:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2.6	Not Detected	13	Not Detected
Freon 114	2.6	Not Detected	18	Not Detected
Chloromethane	26	Not Detected	55	Not Detected
Vinyl Chloride	2.6	6.8	6.8	17
Bromomethane	26	Not Detected	100	Not Detected
Chloroethane	11	Not Detected	28	Not Detected
Freon 11	2.6	Not Detected	15	Not Detected
Freon 113	2.6	Not Detected	20	Not Detected
1,1-Dichloroethene	2.6	Not Detected	10	Not Detected
Methylene Chloride	26	Not Detected	92	Not Detected
Methyl tert-butyl ether	11	Not Detected	38	Not Detected
1,1-Dichloroethane	2.6	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	2.6	720	10	2900
Chloroform	2.6	Not Detected	13	Not Detected
1,1,1-Trichloroethane	2.6	Not Detected	14	Not Detected
Carbon Tetrachloride	2.6	Not Detected	17	Not Detected
Benzene	2.6	Not Detected	8.5	Not Detected
1,2-Dichloroethane	2.6	Not Detected	11	Not Detected
Trichloroethene	2.6	1000	14	5500
1,2-Dichloropropane	2.6	Not Detected	12	Not Detected
cis-1,3-Dichloropropene	2.6	Not Detected	12	Not Detected
Toluene	2.6	Not Detected	10	Not Detected
trans-1,3-Dichloropropene	2.6	Not Detected	12	Not Detected
1,1,2-Trichloroethane	2.6	Not Detected	14	Not Detected
Tetrachloroethene	2.6	200	18	1400
1,2-Dibromoethane (EDB)	2.6	Not Detected	20	Not Detected
Chlorobenzene	2.6	Not Detected	12	Not Detected
Ethyl Benzene	2.6	Not Detected	12	Not Detected
m,p-Xylene	2.6	Not Detected	12	Not Detected
o-Xylene	2.6	Not Detected	12	Not Detected
Styrene	2.6	Not Detected	11	Not Detected
1,1,2,2-Tetrachloroethane	2.6	Not Detected	18	Not Detected
1,3,5-Trimethylbenzene	2.6	Not Detected	13	Not Detected
1,2,4-Trimethylbenzene	2.6	Not Detected	13	Not Detected
1,3-Dichlorobenzene	2.6	Not Detected	16	Not Detected
1,4-Dichlorobenzene	2.6	Not Detected	16	Not Detected
alpha-Chlorotoluene	2.6	Not Detected	14	Not Detected
1,2-Dichlorobenzene	2.6	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	11	Not Detected	79	Not Detected
Hexachlorobutadiene	11	Not Detected	110	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: Combined Effluent

Lab ID#: 1710219-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101321	Date of Collection: 10/5/17 8:25:00 AM
Dil. Factor:	5.30	Date of Analysis: 10/13/17 11:01 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	99	70-130





Air Toxics

Client Sample ID: GETS Influent

Lab ID#: 1710219-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101322	Date of Collection:	10/5/17 9:25:00 AM
Dil. Factor:	45.1	Date of Analysis:	10/13/17 11:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	22	Not Detected	110	Not Detected
Freon 114	22	Not Detected	160	Not Detected
Chloromethane	220	Not Detected	460	Not Detected
Vinyl Chloride	22	Not Detected	58	Not Detected
Bromomethane	220	Not Detected	880	Not Detected
Chloroethane	90	Not Detected	240	Not Detected
Freon 11	22	Not Detected	130	Not Detected
Freon 113	22	Not Detected	170	Not Detected
1,1-Dichloroethene	22	Not Detected	89	Not Detected
Methylene Chloride	220	Not Detected	780	Not Detected
Methyl tert-butyl ether	90	Not Detected	320	Not Detected
1,1-Dichloroethane	22	Not Detected	91	Not Detected
cis-1,2-Dichloroethene	22	790	89	3100
Chloroform	22	Not Detected	110	Not Detected
1,1,1-Trichloroethane	22	Not Detected	120	Not Detected
Carbon Tetrachloride	22	Not Detected	140	Not Detected
Benzene	22	Not Detected	72	Not Detected
1,2-Dichloroethane	22	Not Detected	91	Not Detected
Trichloroethene	22	900	120	4800
1,2-Dichloropropane	22	Not Detected	100	Not Detected
cis-1,3-Dichloropropene	22	Not Detected	100	Not Detected
Toluene	22	Not Detected	85	Not Detected
trans-1,3-Dichloropropene	22	Not Detected	100	Not Detected
1,1,2-Trichloroethane	22	Not Detected	120	Not Detected
Tetrachloroethene	22	5700	150	39000
1,2-Dibromoethane (EDB)	22	Not Detected	170	Not Detected
Chlorobenzene	22	Not Detected	100	Not Detected
Ethyl Benzene	22	Not Detected	98	Not Detected
m,p-Xylene	22	Not Detected	98	Not Detected
o-Xylene	22	Not Detected	98	Not Detected
Styrene	22	Not Detected	96	Not Detected
1,1,2,2-Tetrachloroethane	22	Not Detected	150	Not Detected
1,3,5-Trimethylbenzene	22	Not Detected	110	Not Detected
1,2,4-Trimethylbenzene	22	Not Detected	110	Not Detected
1,3-Dichlorobenzene	22	Not Detected	140	Not Detected
1,4-Dichlorobenzene	22	Not Detected	140	Not Detected
alpha-Chlorotoluene	22	Not Detected	120	Not Detected
1,2-Dichlorobenzene	22	Not Detected	140	Not Detected
1,2,4-Trichlorobenzene	90	Not Detected	670	Not Detected
Hexachlorobutadiene	90	Not Detected	960	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: GETS Influent

Lab ID#: 1710219-03A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101322	Date of Collection:	10/5/17 9:25:00 AM
Dil. Factor:	45.1	Date of Analysis:	10/13/17 11:24 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	93	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1710219-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101305	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/13/17 12:18 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 1710219-04A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101305	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/13/17 12:18 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1710219-04B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101707	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	10/17/17 01:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

Client Sample ID: Lab Blank

Lab ID#: 1710219-04B

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101707	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/17/17 01:53 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: CCV

Lab ID#: 1710219-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101302	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/13/17 10:53 AM

Compound	%Recovery
Freon 12	92
Freon 114	99
Chloromethane	87
Vinyl Chloride	92
Bromomethane	103
Chloroethane	91
Freon 11	92
Freon 113	100
1,1-Dichloroethene	95
Methylene Chloride	87
Methyl tert-butyl ether	87
1,1-Dichloroethane	91
cis-1,2-Dichloroethene	86
Chloroform	90
1,1,1-Trichloroethane	90
Carbon Tetrachloride	92
Benzene	94
1,2-Dichloroethane	90
Trichloroethene	98
1,2-Dichloropropane	92
cis-1,3-Dichloropropene	96
Toluene	95
trans-1,3-Dichloropropene	92
1,1,2-Trichloroethane	98
Tetrachloroethene	98
1,2-Dibromoethane (EDB)	97
Chlorobenzene	95
Ethyl Benzene	96
m,p-Xylene	97
o-Xylene	95
Styrene	110
1,1,2,2-Tetrachloroethane	98
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	104
1,3-Dichlorobenzene	106
1,4-Dichlorobenzene	105
alpha-Chlorotoluene	95
1,2-Dichlorobenzene	106
1,2,4-Trichlorobenzene	109
Hexachlorobutadiene	109

Container Type: NA - Not Applicable

**Client Sample ID: CCV**
**Lab ID#: 1710219-05A**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3101302</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 10/13/17 10:53 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	106	70-130





Air Toxics

Client Sample ID: CCV

Lab ID#: 1710219-05B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/17/17 09:05 AM

Compound	%Recovery
Freon 12	84
Freon 114	94
Chloromethane	83
Vinyl Chloride	83
Bromomethane	93
Chloroethane	82
Freon 11	85
Freon 113	92
1,1-Dichloroethene	83
Methylene Chloride	86
Methyl tert-butyl ether	78
1,1-Dichloroethane	88
cis-1,2-Dichloroethene	81
Chloroform	89
1,1,1-Trichloroethane	88
Carbon Tetrachloride	93
Benzene	95
1,2-Dichloroethane	87
Trichloroethene	100
1,2-Dichloropropane	98
cis-1,3-Dichloropropene	95
Toluene	99
trans-1,3-Dichloropropene	84
1,1,2-Trichloroethane	97
Tetrachloroethene	97
1,2-Dibromoethane (EDB)	96
Chlorobenzene	96
Ethyl Benzene	96
m,p-Xylene	97
o-Xylene	94
Styrene	110
1,1,2,2-Tetrachloroethane	95
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	88
1,2-Dichlorobenzene	104
1,2,4-Trichlorobenzene	107
Hexachlorobutadiene	108

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1710219-05B

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	3101702	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/17/17 09:05 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1710219-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/13/17 11:16 AM

Compound	%Recovery	Method Limits
Freon 12	93	70-130
Freon 114	104	70-130
Chloromethane	83	70-130
Vinyl Chloride	94	70-130
Bromomethane	101	70-130
Chloroethane	93	70-130
Freon 11	95	70-130
Freon 113	98	70-130
1,1-Dichloroethene	94	70-130
Methylene Chloride	84	70-130
Methyl tert-butyl ether	83	70-130
1,1-Dichloroethane	91	70-130
cis-1,2-Dichloroethene	97	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	91	70-130
Carbon Tetrachloride	94	70-130
Benzene	102	70-130
1,2-Dichloroethane	93	70-130
Trichloroethene	102	70-130
1,2-Dichloropropane	94	70-130
cis-1,3-Dichloropropene	91	70-130
Toluene	95	70-130
trans-1,3-Dichloropropene	96	70-130
1,1,2-Trichloroethane	104	70-130
Tetrachloroethene	105	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	99	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	99	70-130
o-Xylene	98	70-130
Styrene	103	70-130
1,1,2,2-Tetrachloroethane	97	70-130
1,3,5-Trimethylbenzene	104	70-130
1,2,4-Trimethylbenzene	99	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	103	70-130
1,2-Dichlorobenzene	106	70-130
1,2,4-Trichlorobenzene	105	70-130
Hexachlorobutadiene	106	70-130

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1710219-06A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	3101303	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/13/17 11:16 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1710219-06AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/13/17 11:39 AM

Compound	%Recovery	Method Limits
Freon 12	97	70-130
Freon 114	110	70-130
Chloromethane	87	70-130
Vinyl Chloride	99	70-130
Bromomethane	106	70-130
Chloroethane	98	70-130
Freon 11	100	70-130
Freon 113	102	70-130
1,1-Dichloroethene	99	70-130
Methylene Chloride	89	70-130
Methyl tert-butyl ether	87	70-130
1,1-Dichloroethane	92	70-130
cis-1,2-Dichloroethene	97	70-130
Chloroform	97	70-130
1,1,1-Trichloroethane	95	70-130
Carbon Tetrachloride	97	70-130
Benzene	103	70-130
1,2-Dichloroethane	94	70-130
Trichloroethene	108	70-130
1,2-Dichloropropane	100	70-130
cis-1,3-Dichloropropene	96	70-130
Toluene	101	70-130
trans-1,3-Dichloropropene	96	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	105	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	101	70-130
m,p-Xylene	101	70-130
o-Xylene	101	70-130
Styrene	105	70-130
1,1,2,2-Tetrachloroethane	95	70-130
1,3,5-Trimethylbenzene	102	70-130
1,2,4-Trimethylbenzene	96	70-130
1,3-Dichlorobenzene	104	70-130
1,4-Dichlorobenzene	103	70-130
alpha-Chlorotoluene	100	70-130
1,2-Dichlorobenzene	104	70-130
1,2,4-Trichlorobenzene	107	70-130
Hexachlorobutadiene	106	70-130

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1710219-06AA

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	3101304	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/13/17 11:39 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	88	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: LCS

Lab ID#: 1710219-06B

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/17/17 09:28 AM

Compound	%Recovery	Method Limits
Freon 12	87	70-130
Freon 114	100	70-130
Chloromethane	84	70-130
Vinyl Chloride	88	70-130
Bromomethane	91	70-130
Chloroethane	84	70-130
Freon 11	90	70-130
Freon 113	94	70-130
1,1-Dichloroethene	88	70-130
Methylene Chloride	84	70-130
Methyl tert-butyl ether	75	70-130
1,1-Dichloroethane	87	70-130
cis-1,2-Dichloroethene	91	70-130
Chloroform	91	70-130
1,1,1-Trichloroethane	90	70-130
Carbon Tetrachloride	93	70-130
Benzene	100	70-130
1,2-Dichloroethane	89	70-130
Trichloroethene	107	70-130
1,2-Dichloropropane	103	70-130
cis-1,3-Dichloropropene	94	70-130
Toluene	103	70-130
trans-1,3-Dichloropropene	90	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	105	70-130
1,2-Dibromoethane (EDB)	103	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	100	70-130
m,p-Xylene	100	70-130
o-Xylene	99	70-130
Styrene	105	70-130
1,1,2,2-Tetrachloroethane	97	70-130
1,3,5-Trimethylbenzene	101	70-130
1,2,4-Trimethylbenzene	95	70-130
1,3-Dichlorobenzene	107	70-130
1,4-Dichlorobenzene	102	70-130
alpha-Chlorotoluene	94	70-130
1,2-Dichlorobenzene	100	70-130
1,2,4-Trichlorobenzene	96	70-130
Hexachlorobutadiene	97	70-130

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCS

Lab ID#: 1710219-06B

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	3101703	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/17/17 09:28 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	104	70-130





Air Toxics

Client Sample ID: LCSD

Lab ID#: 1710219-06BB

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3101704	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/17/17 09:50 AM

Compound	%Recovery	Method Limits
Freon 12	90	70-130
Freon 114	103	70-130
Chloromethane	83	70-130
Vinyl Chloride	91	70-130
Bromomethane	92	70-130
Chloroethane	86	70-130
Freon 11	90	70-130
Freon 113	93	70-130
1,1-Dichloroethene	87	70-130
Methylene Chloride	84	70-130
Methyl tert-butyl ether	74	70-130
1,1-Dichloroethane	87	70-130
cis-1,2-Dichloroethene	92	70-130
Chloroform	91	70-130
1,1,1-Trichloroethane	90	70-130
Carbon Tetrachloride	93	70-130
Benzene	99	70-130
1,2-Dichloroethane	90	70-130
Trichloroethene	106	70-130
1,2-Dichloropropane	102	70-130
cis-1,3-Dichloropropene	95	70-130
Toluene	102	70-130
trans-1,3-Dichloropropene	97	70-130
1,1,2-Trichloroethane	110	70-130
Tetrachloroethene	111	70-130
1,2-Dibromoethane (EDB)	102	70-130
Chlorobenzene	101	70-130
Ethyl Benzene	99	70-130
m,p-Xylene	102	70-130
o-Xylene	105	70-130
Styrene	110	70-130
1,1,2,2-Tetrachloroethane	103	70-130
1,3,5-Trimethylbenzene	107	70-130
1,2,4-Trimethylbenzene	102	70-130
1,3-Dichlorobenzene	114	70-130
1,4-Dichlorobenzene	114	70-130
alpha-Chlorotoluene	107	70-130
1,2-Dichlorobenzene	113	70-130
1,2,4-Trichlorobenzene	116	70-130
Hexachlorobutadiene	118	70-130

Container Type: NA - Not Applicable

**Client Sample ID: LCSD**
**Lab ID#: 1710219-06BB**
**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3101704</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 10/17/17 09:50 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	80	70-130
4-Bromofluorobenzene	110	70-130



Air Toxics

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Alina Satkoski
Collected by: (Print and Sign) Alina Satkoski
Company MEC Email asatkoski@medison-kinc.com
Address 201 Waubesa St. city Madison State WI Zip 53704
Phone 608 242 5200 Fax -

Project Info: P.O. # 107418, Project #, Project Name GETS/SVE
Turn Around Time: [X] Normal, [ ] Rush
Lab Use Only: Pressurized by, Date, Pressurization Gas: N2 He

Table with columns: Lab I.D., Field Sample I.D. (Location), Can #, Date of Collection, Time of Collection, Analyses Requested, Canister Pressure/Vacuum (Initial, Final, Receipt, Final psi)

Relinquished by: (signature) Date/Time
Received by: (signature) Date/Time
Notes:

Lab Use Only: Shipper Name, Air Bill #, Temp (°C), Condition, Custody Seals Intact?, Work Order #

12/8/2017

Ms. Alina Satkoski  
Madison-Kipp Corporation  
201 Waubesa Street

Madison WI 53704

Project Name: GETS/SVE

Project #:

Workorder #: 1711325

Dear Ms. Alina Satkoski

The following report includes the data for the above referenced project for sample(s) received on 11/17/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

**WORK ORDER #: 1711325**

Work Order Summary

<b>CLIENT:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704	<b>BILL TO:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704
<b>PHONE:</b>	608-244-3511	<b>P.O. #</b>	107418
<b>FAX:</b>		<b>PROJECT #</b>	GETS/SVE
<b>DATE RECEIVED:</b>	11/17/2017	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	12/08/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A(cancelled)	Combined Influent	TO-15	22.8 "Hg	15.7 psi
02A(cancelled)	Effluent	TO-15	8.4 "Hg	15.4 psi
03A	GETS Influent	TO-15	7.3 "Hg	15.5 psi
04A	SVE-2	TO-15	3.9 "Hg	15.3 psi
05A	Lab Blank	TO-15	NA	NA
06A	CCV	TO-15	NA	NA
07A	LCS	TO-15	NA	NA
07AA	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 Technical Director

DATE: 12/08/17

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

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**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**Madison-Kipp Corporation**  
**Workorder# 1711325**

Four 1 Liter Summa Canister samples were received on November 17, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

**Receiving Notes**

Sample Combined Influent was received with significant vacuum remaining in the canister. The client was notified and requested the sample be cancelled.

Sample Effluent was cancelled on December 7, 2017 per client's request.

**Analytical Notes**

Dilution was performed on sample GETS Influent due to the presence of high level target species.

**Definition of Data Qualifying Flags**

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: GETS Influent**

**Lab ID#: 1711325-03A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	9.0	13	23	34
cis-1,2-Dichloroethene	9.0	1500	36	5900
Trichloroethene	9.0	940	49	5000
Tetrachloroethene	9.0	2900	61	20000

**Client Sample ID: SVE-2**

**Lab ID#: 1711325-04A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	1.2	2.8	3.0	7.2
cis-1,2-Dichloroethene	1.2	110	4.6	450
Trichloroethene	1.2	43	6.3	230
Tetrachloroethene	1.2	92	7.9	620



Air Toxics

Client Sample ID: GETS Influent

Lab ID#: 1711325-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p111927	Date of Collection:	11/13/17 9:45:00 AM
Dil. Factor:	18.1	Date of Analysis:	11/19/17 09:30 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	9.0	Not Detected	45	Not Detected
Freon 114	9.0	Not Detected	63	Not Detected
Chloromethane	90	Not Detected	190	Not Detected
Vinyl Chloride	9.0	13	23	34
Bromomethane	90	Not Detected	350	Not Detected
Chloroethane	36	Not Detected	96	Not Detected
Freon 11	9.0	Not Detected	51	Not Detected
Freon 113	9.0	Not Detected	69	Not Detected
1,1-Dichloroethene	9.0	Not Detected	36	Not Detected
Methylene Chloride	90	Not Detected	310	Not Detected
Methyl tert-butyl ether	36	Not Detected	130	Not Detected
1,1-Dichloroethane	9.0	Not Detected	37	Not Detected
cis-1,2-Dichloroethene	9.0	1500	36	5900
Chloroform	9.0	Not Detected	44	Not Detected
1,1,1-Trichloroethane	9.0	Not Detected	49	Not Detected
Carbon Tetrachloride	9.0	Not Detected	57	Not Detected
Benzene	9.0	Not Detected	29	Not Detected
1,2-Dichloroethane	9.0	Not Detected	37	Not Detected
Trichloroethene	9.0	940	49	5000
1,2-Dichloropropane	9.0	Not Detected	42	Not Detected
cis-1,3-Dichloropropene	9.0	Not Detected	41	Not Detected
Toluene	9.0	Not Detected	34	Not Detected
trans-1,3-Dichloropropene	9.0	Not Detected	41	Not Detected
1,1,2-Trichloroethane	9.0	Not Detected	49	Not Detected
Tetrachloroethene	9.0	2900	61	20000
1,2-Dibromoethane (EDB)	9.0	Not Detected	70	Not Detected
Chlorobenzene	9.0	Not Detected	42	Not Detected
Ethyl Benzene	9.0	Not Detected	39	Not Detected
m,p-Xylene	9.0	Not Detected	39	Not Detected
o-Xylene	9.0	Not Detected	39	Not Detected
Styrene	9.0	Not Detected	38	Not Detected
1,1,2,2-Tetrachloroethane	9.0	Not Detected	62	Not Detected
1,3,5-Trimethylbenzene	9.0	Not Detected	44	Not Detected
1,2,4-Trimethylbenzene	9.0	Not Detected	44	Not Detected
1,3-Dichlorobenzene	9.0	Not Detected	54	Not Detected
1,4-Dichlorobenzene	9.0	Not Detected	54	Not Detected
alpha-Chlorotoluene	9.0	Not Detected	47	Not Detected
1,2-Dichlorobenzene	9.0	Not Detected	54	Not Detected
1,2,4-Trichlorobenzene	36	Not Detected	270	Not Detected
Hexachlorobutadiene	36	Not Detected	390	Not Detected

Container Type: 1 Liter Summa Canister





Air Toxics

Client Sample ID: GETS Influent

Lab ID#: 1711325-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p111927	Date of Collection:	11/13/17 9:45:00 AM
Dil. Factor:	18.1	Date of Analysis:	11/19/17 09:30 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: SVE-2

Lab ID#: 1711325-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p111926	Date of Collection:	11/13/17 10:30:00 A
Dil. Factor:	2.34	Date of Analysis:	11/19/17 08:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.2	Not Detected
Chloromethane	12	Not Detected	24	Not Detected
Vinyl Chloride	1.2	2.8	3.0	7.2
Bromomethane	12	Not Detected	45	Not Detected
Chloroethane	4.7	Not Detected	12	Not Detected
Freon 11	1.2	Not Detected	6.6	Not Detected
Freon 113	1.2	Not Detected	9.0	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Methylene Chloride	12	Not Detected	41	Not Detected
Methyl tert-butyl ether	4.7	Not Detected	17	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	110	4.6	450
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.4	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	43	6.3	230
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	92	7.9	620
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.1	Not Detected
m,p-Xylene	1.2	Not Detected	5.1	Not Detected
o-Xylene	1.2	Not Detected	5.1	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	35	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: SVE-2

Lab ID#: 1711325-04A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	p111926	Date of Collection: 11/13/17 10:30:00 A
Dil. Factor:	2.34	Date of Analysis: 11/19/17 08:52 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1711325-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p111906	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/19/17 10:36 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1711325-05A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	p111906	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/19/17 10:36 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1711325-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p111902	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/19/17 08:28 AM

Compound	%Recovery
Freon 12	102
Freon 114	102
Chloromethane	102
Vinyl Chloride	111
Bromomethane	86
Chloroethane	95
Freon 11	99
Freon 113	98
1,1-Dichloroethene	99
Methylene Chloride	96
Methyl tert-butyl ether	98
1,1-Dichloroethane	98
cis-1,2-Dichloroethene	104
Chloroform	99
1,1,1-Trichloroethane	94
Carbon Tetrachloride	92
Benzene	91
1,2-Dichloroethane	96
Trichloroethene	98
1,2-Dichloropropane	96
cis-1,3-Dichloropropene	98
Toluene	98
trans-1,3-Dichloropropene	98
1,1,2-Trichloroethane	95
Tetrachloroethene	103
1,2-Dibromoethane (EDB)	101
Chlorobenzene	100
Ethyl Benzene	109
m,p-Xylene	113
o-Xylene	112
Styrene	114
1,1,2,2-Tetrachloroethane	95
1,3,5-Trimethylbenzene	116
1,2,4-Trimethylbenzene	115
1,3-Dichlorobenzene	104
1,4-Dichlorobenzene	108
alpha-Chlorotoluene	100
1,2-Dichlorobenzene	103
1,2,4-Trichlorobenzene	100
Hexachlorobutadiene	100

Container Type: NA - Not Applicable

**Client Sample ID: CCV**

**Lab ID#: 1711325-06A**

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>p111902</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 11/19/17 08:28 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1711325-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p111903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/19/17 08:53 AM

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	106	70-130
Chloromethane	101	70-130
Vinyl Chloride	115	70-130
Bromomethane	84	70-130
Chloroethane	99	70-130
Freon 11	100	70-130
Freon 113	95	70-130
1,1-Dichloroethene	99	70-130
Methylene Chloride	95	70-130
Methyl tert-butyl ether	94	70-130
1,1-Dichloroethane	96	70-130
cis-1,2-Dichloroethene	115	70-130
Chloroform	101	70-130
1,1,1-Trichloroethane	93	70-130
Carbon Tetrachloride	84	70-130
Benzene	90	70-130
1,2-Dichloroethane	93	70-130
Trichloroethene	97	70-130
1,2-Dichloropropane	95	70-130
cis-1,3-Dichloropropene	91	70-130
Toluene	96	70-130
trans-1,3-Dichloropropene	93	70-130
1,1,2-Trichloroethane	90	70-130
Tetrachloroethene	99	70-130
1,2-Dibromoethane (EDB)	97	70-130
Chlorobenzene	97	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	110	70-130
o-Xylene	112	70-130
Styrene	111	70-130
1,1,2,2-Tetrachloroethane	92	70-130
1,3,5-Trimethylbenzene	111	70-130
1,2,4-Trimethylbenzene	114	70-130
1,3-Dichlorobenzene	102	70-130
1,4-Dichlorobenzene	105	70-130
alpha-Chlorotoluene	100	70-130
1,2-Dichlorobenzene	102	70-130
1,2,4-Trichlorobenzene	113	70-130
Hexachlorobutadiene	112	70-130

Container Type: NA - Not Applicable





Air Toxics

Client Sample ID: LCS

Lab ID#: 1711325-07A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	p111903	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/19/17 08:53 AM

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	97	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: LCS D

Lab ID#: 1711325-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	p111904	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	11/19/17 09:17 AM

Compound	%Recovery	Method Limits
Freon 12	102	70-130
Freon 114	107	70-130
Chloromethane	96	70-130
Vinyl Chloride	111	70-130
Bromomethane	91	70-130
Chloroethane	97	70-130
Freon 11	101	70-130
Freon 113	96	70-130
1,1-Dichloroethene	101	70-130
Methylene Chloride	92	70-130
Methyl tert-butyl ether	97	70-130
1,1-Dichloroethane	97	70-130
cis-1,2-Dichloroethene	113	70-130
Chloroform	100	70-130
1,1,1-Trichloroethane	93	70-130
Carbon Tetrachloride	95	70-130
Benzene	90	70-130
1,2-Dichloroethane	93	70-130
Trichloroethene	98	70-130
1,2-Dichloropropane	94	70-130
cis-1,3-Dichloropropene	92	70-130
Toluene	97	70-130
trans-1,3-Dichloropropene	95	70-130
1,1,2-Trichloroethane	92	70-130
Tetrachloroethene	102	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	98	70-130
Ethyl Benzene	106	70-130
m,p-Xylene	111	70-130
o-Xylene	113	70-130
Styrene	113	70-130
1,1,2,2-Tetrachloroethane	93	70-130
1,3,5-Trimethylbenzene	113	70-130
1,2,4-Trimethylbenzene	115	70-130
1,3-Dichlorobenzene	104	70-130
1,4-Dichlorobenzene	106	70-130
alpha-Chlorotoluene	102	70-130
1,2-Dichlorobenzene	104	70-130
1,2,4-Trichlorobenzene	121	70-130
Hexachlorobutadiene	119	70-130

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1711325-07AA

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	p111904	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 11/19/17 09:17 AM

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Alina Satkasi
Collected by: (Print and Sign) Alina Satkasi @AlinaSatkasi
Company MCE Email
Address 201 Waukena St. City Madison State WI Zip 53704
Phone 608 242 5200 Fax

Project Info:
P.O. # 107418
Project #
Project Name GETS/SVE

Turn Around Time:
Normal (checked)
Rush
specify
Lab Use Only
Pressurized by:
Date:
Pressurization Gas:
N2 He

Table with columns: Lab I.D., Field Sample I.D. (Location), Can #, Date of Collection, Time of Collection, Analyses Requested, Canister Pressure/Vacuum (Initial, Final, Receipt, Final (psi)). Rows include 01A Combined Influent, 02A Effluent, 03A GETS Influent, 04A SVE-2.

Relinquished by: (signature) Date/Time
Alina Satkasi 11/13/17 14:00
Received by: (signature) Date/Time
John J. EATL 11/17/17 10:05

Notes:

Lab Use Only
Shipper Name UPS
Air Bill #
Temp (°C) N/A
Condition good
Custody Seals Intact? Yes No None
Work Order # 1711325

12/20/2017

Ms. Alina Satkoski  
Madison-Kipp Corporation  
201 Waubesa Street

Madison WI 53704

Project Name: GETS/SVE

Project #:

Workorder #: 1712124

Dear Ms. Alina Satkoski

The following report includes the data for the above referenced project for sample(s) received on 12/7/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

**WORK ORDER #: 1712124**

Work Order Summary

<b>CLIENT:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704	<b>BILL TO:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704
<b>PHONE:</b>	608-244-3511	<b>P.O. #</b>	107418
<b>FAX:</b>		<b>PROJECT #</b>	GETS/SVE
<b>DATE RECEIVED:</b>	12/07/2017	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	12/20/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	Combined Influent	TO-15	2.2 "Hg	14.9 psi
02A	Effluent	TO-15	4.9 "Hg	14.7 psi
03A	Lab Blank	TO-15	NA	NA
04A	CCV	TO-15	NA	NA
05A	LCS	TO-15	NA	NA
05AA	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 12/20/17

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

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**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**Madison-Kipp Corporation**  
**Workorder# 1712124**

Two 1 Liter Summa Canister samples were received on December 07, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

All Quality Control Limit exceedances and affected sample results are noted by flags. Each flag is defined at the bottom of this Case Narrative and on each Sample Result Summary page.

Dilution was performed on sample Combined Influent due to the presence of high level target species.

**Definition of Data Qualifying Flags**

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: Combined Influent**

**Lab ID#: 1712124-01A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	5.4	7.0	14	18
cis-1,2-Dichloroethene	5.4	430	22	1700
Trichloroethene	5.4	380	29	2100
Toluene	5.4	17	20	64
Tetrachloroethene	5.4	1600	37	11000

**Client Sample ID: Effluent**

**Lab ID#: 1712124-02A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	1.2	3.9	3.0	10
cis-1,2-Dichloroethene	1.2	110	4.7	420
Trichloroethene	1.2	360	6.4	2000
Tetrachloroethene	1.2	360	8.1	2400





Air Toxics

Client Sample ID: Combined Influent

Lab ID#: 1712124-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121109	Date of Collection:	11/30/17 7:30:00 AM
Dil. Factor:	10.9	Date of Analysis:	12/11/17 04:49 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	5.4	Not Detected	27	Not Detected
Freon 114	5.4	Not Detected	38	Not Detected
Chloromethane	54	Not Detected	110	Not Detected
Vinyl Chloride	5.4	7.0	14	18
Bromomethane	54	Not Detected	210	Not Detected
Chloroethane	22	Not Detected	58	Not Detected
Freon 11	5.4	Not Detected	31	Not Detected
Freon 113	5.4	Not Detected	42	Not Detected
1,1-Dichloroethene	5.4	Not Detected	22	Not Detected
Methylene Chloride	54	Not Detected	190	Not Detected
Methyl tert-butyl ether	22	Not Detected UJ	78	Not Detected UJ
1,1-Dichloroethane	5.4	Not Detected	22	Not Detected
cis-1,2-Dichloroethene	5.4	430	22	1700
Chloroform	5.4	Not Detected	27	Not Detected
1,1,1-Trichloroethane	5.4	Not Detected	30	Not Detected
Carbon Tetrachloride	5.4	Not Detected	34	Not Detected
Benzene	5.4	Not Detected	17	Not Detected
1,2-Dichloroethane	5.4	Not Detected	22	Not Detected
Trichloroethene	5.4	380	29	2100
1,2-Dichloropropane	5.4	Not Detected	25	Not Detected
cis-1,3-Dichloropropene	5.4	Not Detected	25	Not Detected
Toluene	5.4	17	20	64
trans-1,3-Dichloropropene	5.4	Not Detected	25	Not Detected
1,1,2-Trichloroethane	5.4	Not Detected	30	Not Detected
Tetrachloroethene	5.4	1600	37	11000
1,2-Dibromoethane (EDB)	5.4	Not Detected	42	Not Detected
Chlorobenzene	5.4	Not Detected	25	Not Detected
Ethyl Benzene	5.4	Not Detected	24	Not Detected
m,p-Xylene	5.4	Not Detected	24	Not Detected
o-Xylene	5.4	Not Detected	24	Not Detected
Styrene	5.4	Not Detected	23	Not Detected
1,1,2,2-Tetrachloroethane	5.4	Not Detected	37	Not Detected
1,3,5-Trimethylbenzene	5.4	Not Detected	27	Not Detected
1,2,4-Trimethylbenzene	5.4	Not Detected	27	Not Detected
1,3-Dichlorobenzene	5.4	Not Detected	33	Not Detected
1,4-Dichlorobenzene	5.4	Not Detected	33	Not Detected
alpha-Chlorotoluene	5.4	Not Detected	28	Not Detected
1,2-Dichlorobenzene	5.4	Not Detected	33	Not Detected
1,2,4-Trichlorobenzene	22	Not Detected	160	Not Detected
Hexachlorobutadiene	22	Not Detected	230	Not Detected



Air Toxics

Client Sample ID: Combined Influent

Lab ID#: 1712124-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121109	Date of Collection:	11/30/17 7:30:00 AM
Dil. Factor:	10.9	Date of Analysis:	12/11/17 04:49 PM

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: Effluent

Lab ID#: 1712124-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121108	Date of Collection:	11/30/17 7:45:00 AM
Dil. Factor:	2.39	Date of Analysis:	12/11/17 04:24 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Chloromethane	12	Not Detected	25	Not Detected
Vinyl Chloride	1.2	3.9	3.0	10
Bromomethane	12	Not Detected	46	Not Detected
Chloroethane	4.8	Not Detected	13	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
Freon 113	1.2	Not Detected	9.2	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Methylene Chloride	12	Not Detected	42	Not Detected
Methyl tert-butyl ether	4.8	Not Detected UJ	17	Not Detected UJ
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
cis-1,2-Dichloroethene	1.2	110	4.7	420
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	360	6.4	2000
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
Toluene	1.2	Not Detected	4.5	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	360	8.1	2400
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.2	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	Not Detected	5.2	Not Detected
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected



Air Toxics

Client Sample ID: Effluent

Lab ID#: 1712124-02A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	3121108	Date of Collection:	11/30/17 7:45:00 AM
Dil. Factor:	2.39	Date of Analysis:	12/11/17 04:24 PM

UJ = Analyte associated with low bias in the CCV.

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	86	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1712124-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121107	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/11/17 11:38 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected UJ	7.2	Not Detected UJ
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1712124-03A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	3121107	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/11/17 11:38 AM

UJ = Analyte associated with low bias in the CCV.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: CCV

Lab ID#: 1712124-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/11/17 09:57 AM

Compound	%Recovery
Freon 12	84
Freon 114	93
Chloromethane	86
Vinyl Chloride	76
Bromomethane	85
Chloroethane	75
Freon 11	87
Freon 113	91
1,1-Dichloroethene	76
Methylene Chloride	79
Methyl tert-butyl ether	69 Q
1,1-Dichloroethane	83
cis-1,2-Dichloroethene	80
Chloroform	88
1,1,1-Trichloroethane	89
Carbon Tetrachloride	96
Benzene	94
1,2-Dichloroethane	91
Trichloroethene	96
1,2-Dichloropropane	97
cis-1,3-Dichloropropene	93
Toluene	102
trans-1,3-Dichloropropene	84
1,1,2-Trichloroethane	101
Tetrachloroethene	103
1,2-Dibromoethane (EDB)	100
Chlorobenzene	102
Ethyl Benzene	99
m,p-Xylene	99
o-Xylene	96
Styrene	105
1,1,1,2-Tetrachloroethane	99
1,3,5-Trimethylbenzene	109
1,2,4-Trimethylbenzene	98
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	110
alpha-Chlorotoluene	98
1,2-Dichlorobenzene	111
1,2,4-Trichlorobenzene	117
Hexachlorobutadiene	117



Air Toxics

Client Sample ID: CCV

Lab ID#: 1712124-04A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	3121103	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/11/17 09:57 AM

Q = Exceeds Quality Control limits.

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	85	70-130
4-Bromofluorobenzene	102	70-130





Air Toxics

Client Sample ID: LCS

Lab ID#: 1712124-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/11/17 10:23 AM

Compound	%Recovery	Method Limits
Freon 12	90	70-130
Freon 114	103	70-130
Chloromethane	90	70-130
Vinyl Chloride	84	70-130
Bromomethane	91	70-130
Chloroethane	85	70-130
Freon 11	96	70-130
Freon 113	95	70-130
1,1-Dichloroethene	83	70-130
Methylene Chloride	83	70-130
Methyl tert-butyl ether	72	70-130
1,1-Dichloroethane	87	70-130
cis-1,2-Dichloroethene	93	70-130
Chloroform	94	70-130
1,1,1-Trichloroethane	95	70-130
Carbon Tetrachloride	101	70-130
Benzene	99	70-130
1,2-Dichloroethane	95	70-130
Trichloroethene	104	70-130
1,2-Dichloropropane	103	70-130
cis-1,3-Dichloropropene	94	70-130
Toluene	107	70-130
trans-1,3-Dichloropropene	88	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	109	70-130
1,2-Dibromoethane (EDB)	106	70-130
Chlorobenzene	106	70-130
Ethyl Benzene	104	70-130
m,p-Xylene	105	70-130
o-Xylene	103	70-130
Styrene	112	70-130
1,1,2,2-Tetrachloroethane	103	70-130
1,3,5-Trimethylbenzene	116	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	117	70-130
1,4-Dichlorobenzene	117	70-130
alpha-Chlorotoluene	106	70-130
1,2-Dichlorobenzene	117	70-130
1,2,4-Trichlorobenzene	129	70-130
Hexachlorobutadiene	128	70-130

Container Type: NA - Not Applicable

Client Sample ID: LCS

Lab ID#: 1712124-05A

## EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121104	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/11/17 10:23 AM

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	84	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1712124-05AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	3121105	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/11/17 10:49 AM

Compound	%Recovery	Method Limits
Freon 12	88	70-130
Freon 114	103	70-130
Chloromethane	96	70-130
Vinyl Chloride	102	70-130
Bromomethane	88	70-130
Chloroethane	83	70-130
Freon 11	94	70-130
Freon 113	94	70-130
1,1-Dichloroethene	83	70-130
Methylene Chloride	82	70-130
Methyl tert-butyl ether	73	70-130
1,1-Dichloroethane	86	70-130
cis-1,2-Dichloroethene	90	70-130
Chloroform	92	70-130
1,1,1-Trichloroethane	92	70-130
Carbon Tetrachloride	100	70-130
Benzene	99	70-130
1,2-Dichloroethane	94	70-130
Trichloroethene	103	70-130
1,2-Dichloropropane	103	70-130
cis-1,3-Dichloropropene	94	70-130
Toluene	105	70-130
trans-1,3-Dichloropropene	89	70-130
1,1,2-Trichloroethane	105	70-130
Tetrachloroethene	107	70-130
1,2-Dibromoethane (EDB)	105	70-130
Chlorobenzene	105	70-130
Ethyl Benzene	103	70-130
m,p-Xylene	103	70-130
o-Xylene	103	70-130
Styrene	110	70-130
1,1,2,2-Tetrachloroethane	103	70-130
1,3,5-Trimethylbenzene	115	70-130
1,2,4-Trimethylbenzene	104	70-130
1,3-Dichlorobenzene	116	70-130
1,4-Dichlorobenzene	117	70-130
alpha-Chlorotoluene	105	70-130
1,2-Dichlorobenzene	116	70-130
1,2,4-Trichlorobenzene	129	70-130
Hexachlorobutadiene	127	70-130

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1712124-05AA

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	3121105	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/11/17 10:49 AM

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	82	70-130
4-Bromofluorobenzene	104	70-130

### Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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FOLSOM, CA 95630-4719  
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Aina Satkoski  
 Collected by: (Print and Sign) Aina Satkoski Aina Satkoski  
 Company mke Email asatkoski@madson-kipp.com  
 Address 201 W. Huber St. City Madison State WI Zip 53704  
 Phone 608 242 5200 Fax -

<b>Project Info:</b> P.O. # <u>107418</u> Project # <u>-</u> Project Name <u>GETS/SVE</u>	<b>Turn Around Time:</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush specify _____	Lab Use Only Pressurized by: Date: Pressurization Gas: N <sub>2</sub> He
--	--	--

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
<u>01A</u>	<u>Combined Influent</u>	<u>1L3012</u>	<u>11/30/17</u>	<u>7:30</u>	<u>TD-15</u>	<u>-30</u>	<u>-7</u>		
<u>02A</u>	<u>Effluent</u>	<u>14810</u>	<u>11/30/17</u>	<u>7:45</u>	<u>TD-15</u>	<u>-29.5</u>	<u>-5</u>		

Relinquished by: (signature) <u>Aina Satkoski</u> Date/Time <u>11/30/17 12:00</u>	Received by: (signature) <u>Alyx Ben GAR</u> Date/Time <u>12/07/17 0940</u>	Notes:
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>UPS</u>		<u>NA</u>	<u>Good</u>	Yes No <u>(None)</u>	<u>1712124</u>

12/28/2017

Ms. Alina Satkoski  
Madison-Kipp Corporation  
201 Waubesa Street

Madison WI 53704

Project Name: GETS/SVE

Project #:

Workorder #: 1712274

Dear Ms. Alina Satkoski

The following report includes the data for the above referenced project for sample(s) received on 12/14/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott

Project Manager

**WORK ORDER #: 1712274**

Work Order Summary

<b>CLIENT:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704	<b>BILL TO:</b>	Ms. Alina Satkoski Madison-Kipp Corporation 201 Waubesa Street Madison, WI 53704
<b>PHONE:</b>	608-244-3511	<b>P.O. #</b>	107418
<b>FAX:</b>		<b>PROJECT #</b>	GETS/SVE
<b>DATE RECEIVED:</b>	12/14/2017	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	12/28/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	Effluent	TO-15	6.9 "Hg	15 psi
02A	Combined Influent	TO-15	6.5 "Hg	15 psi
03A	GETS Influent	TO-15	7.3 "Hg	15 psi
04A	SVE-2	TO-15	1.6 "Hg	15.2 psi
05A	Lab Blank	TO-15	NA	NA
06A	CCV	TO-15	NA	NA
07A	LCS	TO-15	NA	NA
07AA	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 12/28/17

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

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 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**Madison-Kipp Corporation**  
**Workorder# 1712274**

Four 1 Liter Summa Canister samples were received on December 14, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

Dilution was performed on samples Effluent, Combined Influent, and GETS Influent due to the presence of high level target species.

**Definition of Data Qualifying Flags**

Ten qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

M - Reported value may be biased due to apparent matrix interferences.

CN - See Case Narrative.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



## Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

**Client Sample ID: Effluent**

**Lab ID#: 1712274-01A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	2.6	8.5	6.7	22
cis-1,2-Dichloroethene	2.6	270	10	1100
Trichloroethene	2.6	750	14	4000
Tetrachloroethene	2.6	730	18	5000

**Client Sample ID: Combined Influent**

**Lab ID#: 1712274-02A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	6.4	10	16	26
cis-1,2-Dichloroethene	6.4	720	26	2900
Trichloroethene	6.4	540	35	2900
Tetrachloroethene	6.4	2400	44	16000

**Client Sample ID: GETS Influent**

**Lab ID#: 1712274-03A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	13	14	34	35
cis-1,2-Dichloroethene	13	1200	53	4600
Trichloroethene	13	870	72	4700
Tetrachloroethene	13	4000	90	27000

**Client Sample ID: SVE-2**

**Lab ID#: 1712274-04A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Vinyl Chloride	1.1	5.1	2.7	13
cis-1,2-Dichloroethene	1.1	93	4.3	370
Trichloroethene	1.1	20	5.8	110
Tetrachloroethene	1.1	50	7.3	340



Air Toxics

Client Sample ID: Effluent

Lab ID#: 1712274-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121506	Date of Collection:	12/8/17 11:15:00 AM
Dil. Factor:	5.25	Date of Analysis:	12/15/17 02:48 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2.6	Not Detected	13	Not Detected
Freon 114	2.6	Not Detected	18	Not Detected
Chloromethane	26	Not Detected	54	Not Detected
Vinyl Chloride	2.6	8.5	6.7	22
Bromomethane	26	Not Detected	100	Not Detected
Chloroethane	10	Not Detected	28	Not Detected
Freon 11	2.6	Not Detected	15	Not Detected
Freon 113	2.6	Not Detected	20	Not Detected
1,1-Dichloroethene	2.6	Not Detected	10	Not Detected
Methylene Chloride	26	Not Detected	91	Not Detected
Methyl tert-butyl ether	10	Not Detected	38	Not Detected
1,1-Dichloroethane	2.6	Not Detected	11	Not Detected
cis-1,2-Dichloroethene	2.6	270	10	1100
Chloroform	2.6	Not Detected	13	Not Detected
1,1,1-Trichloroethane	2.6	Not Detected	14	Not Detected
Carbon Tetrachloride	2.6	Not Detected	16	Not Detected
Benzene	2.6	Not Detected	8.4	Not Detected
1,2-Dichloroethane	2.6	Not Detected	11	Not Detected
Trichloroethene	2.6	750	14	4000
1,2-Dichloropropane	2.6	Not Detected	12	Not Detected
cis-1,3-Dichloropropene	2.6	Not Detected	12	Not Detected
Toluene	2.6	Not Detected	9.9	Not Detected
trans-1,3-Dichloropropene	2.6	Not Detected	12	Not Detected
1,1,2-Trichloroethane	2.6	Not Detected	14	Not Detected
Tetrachloroethene	2.6	730	18	5000
1,2-Dibromoethane (EDB)	2.6	Not Detected	20	Not Detected
Chlorobenzene	2.6	Not Detected	12	Not Detected
Ethyl Benzene	2.6	Not Detected	11	Not Detected
m,p-Xylene	2.6	Not Detected	11	Not Detected
o-Xylene	2.6	Not Detected	11	Not Detected
Styrene	2.6	Not Detected	11	Not Detected
1,1,2,2-Tetrachloroethane	2.6	Not Detected	18	Not Detected
1,3,5-Trimethylbenzene	2.6	Not Detected	13	Not Detected
1,2,4-Trimethylbenzene	2.6	Not Detected	13	Not Detected
1,3-Dichlorobenzene	2.6	Not Detected	16	Not Detected
1,4-Dichlorobenzene	2.6	Not Detected	16	Not Detected
alpha-Chlorotoluene	2.6	Not Detected	14	Not Detected
1,2-Dichlorobenzene	2.6	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	10	Not Detected	78	Not Detected
Hexachlorobutadiene	10	Not Detected	110	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: Effluent

Lab ID#: 1712274-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121506	Date of Collection: 12/8/17 11:15:00 AM
Dil. Factor:	5.25	Date of Analysis: 12/15/17 02:48 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: Combined Influent

Lab ID#: 1712274-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121507	Date of Collection:	12/8/17 11:25:00 AM
Dil. Factor:	12.9	Date of Analysis:	12/15/17 03:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	6.4	Not Detected	32	Not Detected
Freon 114	6.4	Not Detected	45	Not Detected
Chloromethane	64	Not Detected	130	Not Detected
Vinyl Chloride	6.4	10	16	26
Bromomethane	64	Not Detected	250	Not Detected
Chloroethane	26	Not Detected	68	Not Detected
Freon 11	6.4	Not Detected	36	Not Detected
Freon 113	6.4	Not Detected	49	Not Detected
1,1-Dichloroethene	6.4	Not Detected	26	Not Detected
Methylene Chloride	64	Not Detected	220	Not Detected
Methyl tert-butyl ether	26	Not Detected	93	Not Detected
1,1-Dichloroethane	6.4	Not Detected	26	Not Detected
cis-1,2-Dichloroethene	6.4	720	26	2900
Chloroform	6.4	Not Detected	31	Not Detected
1,1,1-Trichloroethane	6.4	Not Detected	35	Not Detected
Carbon Tetrachloride	6.4	Not Detected	40	Not Detected
Benzene	6.4	Not Detected	21	Not Detected
1,2-Dichloroethane	6.4	Not Detected	26	Not Detected
Trichloroethene	6.4	540	35	2900
1,2-Dichloropropane	6.4	Not Detected	30	Not Detected
cis-1,3-Dichloropropene	6.4	Not Detected	29	Not Detected
Toluene	6.4	Not Detected	24	Not Detected
trans-1,3-Dichloropropene	6.4	Not Detected	29	Not Detected
1,1,2-Trichloroethane	6.4	Not Detected	35	Not Detected
Tetrachloroethene	6.4	2400	44	16000
1,2-Dibromoethane (EDB)	6.4	Not Detected	50	Not Detected
Chlorobenzene	6.4	Not Detected	30	Not Detected
Ethyl Benzene	6.4	Not Detected	28	Not Detected
m,p-Xylene	6.4	Not Detected	28	Not Detected
o-Xylene	6.4	Not Detected	28	Not Detected
Styrene	6.4	Not Detected	27	Not Detected
1,1,2,2-Tetrachloroethane	6.4	Not Detected	44	Not Detected
1,3,5-Trimethylbenzene	6.4	Not Detected	32	Not Detected
1,2,4-Trimethylbenzene	6.4	Not Detected	32	Not Detected
1,3-Dichlorobenzene	6.4	Not Detected	39	Not Detected
1,4-Dichlorobenzene	6.4	Not Detected	39	Not Detected
alpha-Chlorotoluene	6.4	Not Detected	33	Not Detected
1,2-Dichlorobenzene	6.4	Not Detected	39	Not Detected
1,2,4-Trichlorobenzene	26	Not Detected	190	Not Detected
Hexachlorobutadiene	26	Not Detected	280	Not Detected

Container Type: 1 Liter Summa Canister

Client Sample ID: Combined Influent

Lab ID#: 1712274-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121507	Date of Collection: 12/8/17 11:25:00 AM
Dil. Factor:	12.9	Date of Analysis: 12/15/17 03:12 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: GETS Influent

Lab ID#: 1712274-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121508	Date of Collection:	12/8/17 11:30:00 AM
Dil. Factor:	26.7	Date of Analysis:	12/15/17 03:35 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	13	Not Detected	66	Not Detected
Freon 114	13	Not Detected	93	Not Detected
Chloromethane	130	Not Detected	280	Not Detected
Vinyl Chloride	13	14	34	35
Bromomethane	130	Not Detected	520	Not Detected
Chloroethane	53	Not Detected	140	Not Detected
Freon 11	13	Not Detected	75	Not Detected
Freon 113	13	Not Detected	100	Not Detected
1,1-Dichloroethene	13	Not Detected	53	Not Detected
Methylene Chloride	130	Not Detected	460	Not Detected
Methyl tert-butyl ether	53	Not Detected	190	Not Detected
1,1-Dichloroethane	13	Not Detected	54	Not Detected
cis-1,2-Dichloroethene	13	1200	53	4600
Chloroform	13	Not Detected	65	Not Detected
1,1,1-Trichloroethane	13	Not Detected	73	Not Detected
Carbon Tetrachloride	13	Not Detected	84	Not Detected
Benzene	13	Not Detected	43	Not Detected
1,2-Dichloroethane	13	Not Detected	54	Not Detected
Trichloroethene	13	870	72	4700
1,2-Dichloropropane	13	Not Detected	62	Not Detected
cis-1,3-Dichloropropene	13	Not Detected	60	Not Detected
Toluene	13	Not Detected	50	Not Detected
trans-1,3-Dichloropropene	13	Not Detected	60	Not Detected
1,1,2-Trichloroethane	13	Not Detected	73	Not Detected
Tetrachloroethene	13	4000	90	27000
1,2-Dibromoethane (EDB)	13	Not Detected	100	Not Detected
Chlorobenzene	13	Not Detected	61	Not Detected
Ethyl Benzene	13	Not Detected	58	Not Detected
m,p-Xylene	13	Not Detected	58	Not Detected
o-Xylene	13	Not Detected	58	Not Detected
Styrene	13	Not Detected	57	Not Detected
1,1,2,2-Tetrachloroethane	13	Not Detected	92	Not Detected
1,3,5-Trimethylbenzene	13	Not Detected	66	Not Detected
1,2,4-Trimethylbenzene	13	Not Detected	66	Not Detected
1,3-Dichlorobenzene	13	Not Detected	80	Not Detected
1,4-Dichlorobenzene	13	Not Detected	80	Not Detected
alpha-Chlorotoluene	13	Not Detected	69	Not Detected
1,2-Dichlorobenzene	13	Not Detected	80	Not Detected
1,2,4-Trichlorobenzene	53	Not Detected	400	Not Detected
Hexachlorobutadiene	53	Not Detected	570	Not Detected

Container Type: 1 Liter Summa Canister



Air Toxics

Client Sample ID: GETS Influent

Lab ID#: 1712274-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121508	Date of Collection: 12/8/17 11:30:00 AM
Dil. Factor:	26.7	Date of Analysis: 12/15/17 03:35 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	91	70-130



Air Toxics

Client Sample ID: SVE-2

Lab ID#: 1712274-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121509	Date of Collection:	12/8/17 12:00:00 PM
Dil. Factor:	2.15	Date of Analysis:	12/15/17 04:01 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.3	Not Detected
Freon 114	1.1	Not Detected	7.5	Not Detected
Chloromethane	11	Not Detected	22	Not Detected
Vinyl Chloride	1.1	5.1	2.7	13
Bromomethane	11	Not Detected	42	Not Detected
Chloroethane	4.3	Not Detected	11	Not Detected
Freon 11	1.1	Not Detected	6.0	Not Detected
Freon 113	1.1	Not Detected	8.2	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.3	Not Detected
Methylene Chloride	11	Not Detected	37	Not Detected
Methyl tert-butyl ether	4.3	Not Detected	16	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	93	4.3	370
Chloroform	1.1	Not Detected	5.2	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.8	Not Detected
Benzene	1.1	Not Detected	3.4	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	20	5.8	110
1,2-Dichloropropane	1.1	Not Detected	5.0	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
Toluene	1.1	Not Detected	4.0	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	4.9	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	5.9	Not Detected
Tetrachloroethene	1.1	50	7.3	340
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.3	Not Detected
Chlorobenzene	1.1	Not Detected	4.9	Not Detected
Ethyl Benzene	1.1	Not Detected	4.7	Not Detected
m,p-Xylene	1.1	Not Detected	4.7	Not Detected
o-Xylene	1.1	Not Detected	4.7	Not Detected
Styrene	1.1	Not Detected	4.6	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.4	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.3	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.6	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.5	Not Detected
1,2,4-Trichlorobenzene	4.3	Not Detected	32	Not Detected
Hexachlorobutadiene	4.3	Not Detected	46	Not Detected

Container Type: 1 Liter Summa Canister





Air Toxics

Client Sample ID: SVE-2

Lab ID#: 1712274-04A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	a121509	Date of Collection: 12/8/17 12:00:00 PM
Dil. Factor:	2.15	Date of Analysis: 12/15/17 04:01 PM

Surrogates	%Recovery	Method Limits
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	90	70-130
4-Bromofluorobenzene	89	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1712274-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121505	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/15/17 12:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
Methyl tert-butyl ether	2.0	Not Detected	7.2	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected

Container Type: NA - Not Applicable

**Client Sample ID: Lab Blank**

**Lab ID#: 1712274-05A**

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>a121505</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 12/15/17 12:33 PM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	90	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1712274-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/17 10:47 AM

Compound	%Recovery
Freon 12	90
Freon 114	98
Chloromethane	98
Vinyl Chloride	90
Bromomethane	96
Chloroethane	89
Freon 11	92
Freon 113	93
1,1-Dichloroethene	92
Methylene Chloride	96
Methyl tert-butyl ether	83
1,1-Dichloroethane	90
cis-1,2-Dichloroethene	95
Chloroform	92
1,1,1-Trichloroethane	91
Carbon Tetrachloride	100
Benzene	88
1,2-Dichloroethane	98
Trichloroethene	100
1,2-Dichloropropane	91
cis-1,3-Dichloropropene	85
Toluene	95
trans-1,3-Dichloropropene	91
1,1,2-Trichloroethane	102
Tetrachloroethene	102
1,2-Dibromoethane (EDB)	104
Chlorobenzene	104
Ethyl Benzene	92
m,p-Xylene	96
o-Xylene	98
Styrene	100
1,1,2,2-Tetrachloroethane	88
1,3,5-Trimethylbenzene	101
1,2,4-Trimethylbenzene	101
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	101
alpha-Chlorotoluene	94
1,2-Dichlorobenzene	99
1,2,4-Trichlorobenzene	88
Hexachlorobutadiene	86

Container Type: NA - Not Applicable



Air Toxics

Client Sample ID: CCV

Lab ID#: 1712274-06A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	a121502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/17 10:47 AM

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	96	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	80	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1712274-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/17 11:12 AM

Compound	%Recovery	Method Limits
Freon 12	89	70-130
Freon 114	100	70-130
Chloromethane	95	70-130
Vinyl Chloride	90	70-130
Bromomethane	94	70-130
Chloroethane	91	70-130
Freon 11	93	70-130
Freon 113	90	70-130
1,1-Dichloroethene	92	70-130
Methylene Chloride	94	70-130
Methyl tert-butyl ether	80	70-130
1,1-Dichloroethane	88	70-130
cis-1,2-Dichloroethene	99	70-130
Chloroform	88	70-130
1,1,1-Trichloroethane	88	70-130
Carbon Tetrachloride	94	70-130
Benzene	84	70-130
1,2-Dichloroethane	95	70-130
Trichloroethene	96	70-130
1,2-Dichloropropane	90	70-130
cis-1,3-Dichloropropene	78	70-130
Toluene	91	70-130
trans-1,3-Dichloropropene	85	70-130
1,1,2-Trichloroethane	96	70-130
Tetrachloroethene	97	70-130
1,2-Dibromoethane (EDB)	98	70-130
Chlorobenzene	97	70-130
Ethyl Benzene	87	70-130
m,p-Xylene	90	70-130
o-Xylene	94	70-130
Styrene	93	70-130
1,1,2,2-Tetrachloroethane	87	70-130
1,3,5-Trimethylbenzene	91	70-130
1,2,4-Trimethylbenzene	90	70-130
1,3-Dichlorobenzene	91	70-130
1,4-Dichlorobenzene	90	70-130
alpha-Chlorotoluene	86	70-130
1,2-Dichlorobenzene	88	70-130
1,2,4-Trichlorobenzene	72	70-130
Hexachlorobutadiene	75	70-130

Container Type: NA - Not Applicable

**Client Sample ID: LCS**

**Lab ID#: 1712274-07A**

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>a121503</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 12/15/17 11:12 AM</b>

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	94	70-130
1,2-Dichloroethane-d4	89	70-130
4-Bromofluorobenzene	87	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1712274-07AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	a121504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/17 11:37 AM

Compound	%Recovery	Method Limits
Freon 12	85	70-130
Freon 114	97	70-130
Chloromethane	93	70-130
Vinyl Chloride	87	70-130
Bromomethane	93	70-130
Chloroethane	88	70-130
Freon 11	88	70-130
Freon 113	87	70-130
1,1-Dichloroethene	89	70-130
Methylene Chloride	89	70-130
Methyl tert-butyl ether	76	70-130
1,1-Dichloroethane	84	70-130
cis-1,2-Dichloroethene	96	70-130
Chloroform	86	70-130
1,1,1-Trichloroethane	85	70-130
Carbon Tetrachloride	92	70-130
Benzene	81	70-130
1,2-Dichloroethane	91	70-130
Trichloroethene	92	70-130
1,2-Dichloropropane	86	70-130
cis-1,3-Dichloropropene	76	70-130
Toluene	88	70-130
trans-1,3-Dichloropropene	82	70-130
1,1,2-Trichloroethane	90	70-130
Tetrachloroethene	92	70-130
1,2-Dibromoethane (EDB)	92	70-130
Chlorobenzene	92	70-130
Ethyl Benzene	82	70-130
m,p-Xylene	85	70-130
o-Xylene	87	70-130
Styrene	86	70-130
1,1,2,2-Tetrachloroethane	79	70-130
1,3,5-Trimethylbenzene	87	70-130
1,2,4-Trimethylbenzene	86	70-130
1,3-Dichlorobenzene	85	70-130
1,4-Dichlorobenzene	85	70-130
alpha-Chlorotoluene	81	70-130
1,2-Dichlorobenzene	83	70-130
1,2,4-Trichlorobenzene	70	70-130
Hexachlorobutadiene	70	70-130

Container Type: NA - Not Applicable





Air Toxics

Client Sample ID: LCSD

Lab ID#: 1712274-07AA

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	a121504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/17 11:37 AM

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
Toluene-d8	95	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	89	70-130



**Sample Transportation Notice**

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B  
FOLSOM, CA 95630-4719  
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Alina Satkoski  
 Collected by: (Print and Sign) Alina Satkoski alinasatkoski  
 Company MCC Email \_\_\_\_\_  
 Address 201 Waukena City Madison State WI Zip 53718  
 Phone 608 242 5200 Fax \_\_\_\_\_

<b>Project Info:</b> P.O. # <u>107418</u> Project # _____ Project Name <u>GETS SVE</u>	<b>Turn Around Time:</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	<small>Lab Use Only</small> Pressurized by: Date: Pressurization Gas: N <sub>2</sub> He
---	---	---

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
<u>01A</u>	<u>Effluent</u>	<u>40865</u>	<u>12/8/17</u>	<u>1115</u>	<u>TD-15</u>	<u>-28.5</u>	<u>-8.5</u>		
<u>02A</u>	<u>Combined Influent</u>	<u>123038</u>	<u>12/8/17</u>	<u>1125</u>	<u>TD-15</u>	<u>-29</u>	<u>-7.5</u>		
<u>03A</u>	<u>GETS Influent</u>	<u>3038</u>	<u>12/8/17</u>	<u>1130</u>	<u>TD-15</u>	<u>-28</u>	<u>-8</u>		
<u>04A</u>	<u>SVE-2</u>	<u>12451</u>	<u>12/8/17</u>	<u>1200</u>	<u>TO-15</u>	<u>-28</u>	<u>-2</u>		

Relinquished by: (signature) <u>[Signature]</u> Date/Time <u>12/8/17 12:00</u>	Received by: (signature) <u>[Signature]</u> Date/Time <u>12/14/17 1050</u>	<b>Notes:</b> ANALYZE SVE-2 IF POSSIBLE VAC (FINAL) at -2 in Hg.
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>WPS</u>		<u>NA</u>	<u>Good</u>	Yes No <u>None</u>	<u>1712213</u> ✓ <u>12/14/17</u> <u>1712274</u>

# Appendix E

## Soil Vapor Extraction Influent Summary Data

---

Table E-1  
 Estimate of SVE System Removal - Total Volatile Organic Compounds  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

DATE	TOTAL VOC CONCENTRATION <sup>(1)</sup>	SYSTEM FLOW RATE	REMOVAL RATE
	µg/m <sup>3</sup>	CFM	lb/year
9/9/2016	3368	188.4	21
12/7/2016	652	195.9	4.2
3/7/2017	296	189.7	1.8
5/5/2017	486	182.6	2.9
9/14/2017	775	189.4	4.8
Average			6.9

**Notes:**

VOCs = Volatile Organic Compounds  
 SVE = Soil Vapor Extraction  
 GETS = Groundwater extraction and treatment system.  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour

Updated By: B. Wachholz 1/30/2018  
 Checked By: T. Perkins 1/31/2018

**Footnotes:**

1. Total VOC concentrations were calculated based on analytes reported above and below the method reporting limit. For detected analytes, the reported concentrations were used. For all other analytes detected below the method reporting limit, half of the reporting limit was used.

Table E-2  
 Estimate of Extraction Well SVE - 2 Removal Rates  
 Madison-Kipp Corporation  
 201 Waubesa Street  
 Madison, Wisconsin

PARAMETER	DATE	CONCENTRATION (ug/m <sup>3</sup> )	SYSTEM FLOW RATE (CFM)	REMOVAL RATE (lb/yr)
PCE				
PCE	9/14/2017	870	28.1	0.80
	11/13/2017	620	28.7	0.58
	12/8/2017	340	34.3	0.38
TCE				
TCE	9/14/2017	310	28.1	0.29
	11/13/2017	230	28.7	0.22
	12/8/2017	110	34.3	0.12
cis-1,2-DCE				
cis-1,2-DCE	9/14/2017	430	28.1	0.40
	11/13/2017	450	28.7	0.42
	12/8/2017	370	34.3	0.42
Vinyl Chloride				
VC	9/14/2017	4	28.1	0.0037
	11/13/2017	7.2	28.7	0.0068
	12/8/2017	13	34.3	0.015
Total VOCs Detected				
Total VOCs Detected	9/14/2017	1614	28.1	1.5
	11/13/2017	1307	28.7	1.2
	12/8/2017	833	34.3	0.94

**Notes:**

VOCs = Volatile Organic Compounds  
 SVE = Soil Vapor Extraction  
 CFM = cubic feet per minute  
 µg/m<sup>3</sup> = micrograms per cubic meters  
 lb/hr = pounds per hour

Created By: A. Stehn (1/24/18)

Checked By: B. Wachholz (1/30/18)

**Footnotes:**

- Total VOC concentrations were calculated based on analytes reported above and below the method reporting limit. For detected analytes, the reported concentrations were used. For all other analytes detected below the method reporting limit, half of the reporting limit was used.

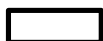





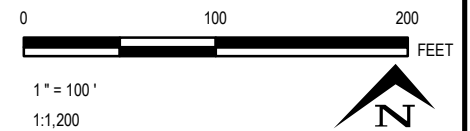




BASE MAP FROM ESRI, "WORLD IMAGERY" WEB BASEMAP SERVICE LAYER.  
 PARCELS FROM WI SCO.

**LEGEND**

-  SITE PROPERTY BOUNDARY
-  SOIL EXTRACTION WELL
-  VAPOR MONITORING POINT
-  VAPOR MONITORING POINT (LOST)




708 Heartland Trail  
 Suite 3000  
 Madison, WI 53717  
 Phone: 608.826.3600

PROJECT:	<b>MADISON-KIPP CORPORATION</b> 201 WAUBESA STREET MADISON, WISCONSIN
TITLE:	<b>SOIL VAPOR EXTRACTION WELL AND VAPOR MONITORING POINT LOCATION MAP</b>

DRAWN BY:	B DEEGAN
CHECKED BY:	A STEHN
APPROVED BY:	K VATER
DATE:	AUGUST 2017
PROJ. NO.:	266431
FILE:	266431-010.mxd

**FIGURE E-1**



# Appendix F Groundwater Monitoring Laboratory Analytical Reports (on CD)

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2525 Advance Road  
Madison, WI 53718  
608.221.8700 Phone  
608.221.4889 Fax

October 19, 2017

Andrew Stehn  
TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison, WI 53717  
RE: Madison Kipp Corp. Semi-Annual Sampling

Enclosed are the analytical results for the samples received by the laboratory on 10/05/2017.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the 2009 NELAC Standards and the appropriate agencies listed below, unless otherwise noted in the case narrative. This analytical report should be reproduced in its entirety.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica Esser  
Project Manager

**Certification List**

Certification List			Expires
ADEQ	Arkansas Department of Environmental Quality	17-065-0	09/26/2018
DODELAP	DOD ELAP Accreditation (A2LA)	3269.01	03/31/2018
ILEPA	Illinois Secondary NELAP Accreditation	003174	04/30/2018
KDHE	Kansas Secondary NELAP Accreditation	E-10384	04/30/2018
LELAP	Louisiana Primary NELAP Accreditation	04165	06/30/2018
NCDEQ	North Carolina Dept. of Environmental Quality Accreditation	688	12/31/2017
NJDEP	New Jersey Secondary NELAP Accreditation	WI004	06/30/2018
ODEQ	Oklahoma Department of Environmental Quality Accreditation	2017-154	08/31/2018
TCEQ	Texas Secondary NELAP Accreditation	T104704504-16-7	11/30/2017
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2018



2525 Advance Road  
 Madison, WI 53718  
 608.221.8700 Phone  
 608.221.4889 Fax

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MP-14 Port 1 (170-178)	A174009-01	Water	10/02/2017	10/05/2017
MP-14 Port 2 (135-140)	A174009-02	Water	10/02/2017	10/05/2017
MP-14 Port 3 (100-105)	A174009-03	Water	10/02/2017	10/05/2017
MP-16 Port 1 (175-179)	A174009-04	Water	10/02/2017	10/05/2017
MP-16 Port 2 (140-144)	A174009-05	Water	10/02/2017	10/05/2017
MP-16 Port 3 (106-116)	A174009-06	Water	10/02/2017	10/05/2017
MP-15 Port 1 (177-187)	A174009-07	Water	10/03/2017	10/05/2017
MP-15 Port 2 (142-146)	A174009-08	Water	10/03/2017	10/05/2017
MP-15 Port 3 (120-125)	A174009-09	Water	10/03/2017	10/05/2017
MP-15 Port 4 (100-105)	A174009-10	Water	10/03/2017	10/05/2017
MP-15 Port 5 (88-92)	A174009-11	Water	10/03/2017	10/05/2017
MP-13 Port 1 (163-167)	A174009-12	Water	10/03/2017	10/05/2017
MP-13 Port 2 (135-139)	A174009-13	Water	10/03/2017	10/05/2017
MP-13 Port 3 (121-125)	A174009-14	Water	10/03/2017	10/05/2017
MP-13 Port 4 (102-106)	A174009-15	Water	10/03/2017	10/05/2017
MP-13 Port 5 (81-85)	A174009-16	Water	10/03/2017	10/05/2017
MP-13 Port 6 (67-71)	A174009-17	Water	10/03/2017	10/05/2017
MP-13 Port 7 (44-48)	A174009-18	Water	10/03/2017	10/05/2017
MW-25D2	A174009-19	Water	10/03/2017	10/05/2017
MW-25D	A174009-20	Water	10/03/2017	10/05/2017
MW-27D2	A174009-21	Water	10/04/2017	10/05/2017
MW-27D	A174009-22	Water	10/04/2017	10/05/2017
MW-5D3	A174009-23	Water	10/04/2017	10/05/2017
MW-5S	A174009-24	Water	10/04/2017	10/05/2017
MW-5D	A174009-25	Water	10/04/2017	10/05/2017
MW-5D2	A174009-26	Water	10/04/2017	10/05/2017
MW-9D2	A174009-27	Water	10/04/2017	10/05/2017
MW-1	A174009-28	Water	10/04/2017	10/05/2017
MW-9D	A174009-29	Water	10/04/2017	10/05/2017
MW-2D	A174009-30	Water	10/04/2017	10/05/2017



2525 Advance Road  
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608.221.8700 Phone  
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TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**CASE NARRATIVE**

**Sample Receipt Information:**

30 samples were received on 10/05/2017. Samples were received at 2.3 degrees Celsius. Samples were received in acceptable condition with the exception of one label discrepancy.

Sample A174009-06 had a discrepancy between the sample description on the chain of custody (COC) and the sample description on the container. Per the client, the container sample description is correct.

Please see the COC document at the end of this report for additional information.

**Continuing Calibration Verification (CCV):**

CCV indicates a potential high bias for chloromethane and vinyl chloride for samples A174009-01, A174009-02, A174009-07, A174009-08, A174009-11 through A174009-14, A174009-16, A174009-19, A174009-20, A174009-22, A174009-23 and A174009-26 through A174009-29. The upper control limits are 130% and 120%. The highest recoveries were 132% and 127%, respectively. Any detections are footnoted with an HC. For the samples where results were less than the reporting limit no further action is required.

CCV also indicates a potential high bias for 1,1-dichloroethene and bromomethane for the samples listed above. All samples were less than the reporting limit for these analytes so no further action is required.

CCV indicates a potential high bias for acetone for samples A174009-04 and A174009-05. Samples were less than the reporting limit for this analyte so no further action is required.



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-14 Port 1 (170-178)**

**Date Sampled**

**A174009-01 (Water)**

**10/02/2017 13:35**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

1,1,1,2-Tetrachloroethane	ND	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,1,1-Trichloroethane	ND	2.0	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	2.0	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,1,2-Trichloroethane	ND	2.0	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	2.6	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,1-Dichloroethane	ND	2.4	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,1-Dichloroethene	ND	2.8	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,1-Dichloropropene	ND	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.90	40	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,2,3-Trichloropropane	ND	3.0	20	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,2,4-Trichlorobenzene	ND	1.5	40	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,2,4-Trimethylbenzene	ND	1.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	5.0	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	2.6	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,2-Dichlorobenzene	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,2-Dichloroethane	ND	1.6	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,2-Dichloropropane	ND	2.0	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,3,5-Trimethylbenzene	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,3-Dichlorobenzene	ND	1.9	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,3-Dichloropropane	ND	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
1,4-Dichlorobenzene	ND	1.4	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
2,2-Dichloropropane	ND	2.8	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
2-Butanone	ND	60	400	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
2-Chlorotoluene	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
2-Hexanone	ND	19	400	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
4-Chlorotoluene	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
4-Methyl-2-pentanone	ND	15	400	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Acetone	ND	68	400	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Benzene	ND	1.8	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Bromobenzene	ND	1.7	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Bromochloromethane	ND	6.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Bromodichloromethane	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Bromoform	ND	1.8	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Bromomethane	ND	12	100	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Carbon disulfide	ND	1.1	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Carbon tetrachloride	ND	0.76	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Chlorobenzene	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Chloroethane	ND	5.0	100	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
<b>Chloroform</b>	<b>1.2</b>	1.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	J, D
<b>Chloromethane</b>	<b>5.2</b>	3.2	40	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	HC, J, D



2525 Advance Road  
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 608.221.4889 Fax

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-14 Port 1 (170-178)**  
**A174009-01 (Water)**

**Date Sampled**  
**10/02/2017 13:35**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

<b>cis-1,2-Dichloroethene</b>	<b>32</b>	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	D
cis-1,3-Dichloropropene	ND	1.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Dibromochloromethane	ND	1.8	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Dibromomethane	ND	2.8	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Dichlorodifluoromethane	ND	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Diisopropyl Ether	ND	3.0	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Ethylbenzene	ND	1.1	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Hexachlorobutadiene	ND	2.6	40	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Isopropylbenzene	ND	1.6	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
<b>m,p-Xylene</b>	<b>1.2</b>	1.1	20	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	B, J, D
Methyl t-Butyl Ether	ND	2.8	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Methylene chloride	ND	2.8	40	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Naphthalene	ND	1.8	100	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
n-Butyl Benzene	ND	2.8	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
n-Hexane	ND	4.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
n-Propyl Benzene	ND	2.0	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
o-Xylene	ND	1.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
p-Isopropyltoluene	ND	1.7	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
sec-Butyl Benzene	ND	2.6	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
<b>Styrene</b>	<b>1.6</b>	1.3	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	B, J, D
tert-Butylbenzene	ND	2.4	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
<b>Tetrachloroethene</b>	<b>840</b>	1.6	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	D
Tetrahydrofuran	ND	24	200	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Toluene	ND	1.1	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
trans-1,2-Dichloroethene	ND	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
trans-1,3-Dichloropropene	ND	1.9	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
<b>Trichloroethene</b>	<b>60</b>	1.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	D
Trichlorofluoromethane	ND	2.6	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Vinyl chloride	ND	3.2	10	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
Xylenes, total	ND	2.3	30	ug/L	20	10/10/2017	10/10/2017 19:19	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			107 %	68.9-141		10/10/2017	10/10/2017 19:19	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			97.8 %	73.3-114		10/10/2017	10/10/2017 19:19	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			91.9 %	72.2-114		10/10/2017	10/10/2017 19:19	EPA 8260B	



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-14 Port 2 (135-140)**  
**A174009-02 (Water)**

**Date Sampled**  
**10/02/2017 14:34**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	1.1	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,1,1-Trichloroethane	ND	1.0	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.99	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,1,2-Trichloroethane	ND	1.0	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	1.3	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,1-Dichloroethane	ND	1.2	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,1-Dichloroethene	ND	1.4	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,1-Dichloropropene	ND	1.1	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.45	20	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,2,3-Trichloropropane	ND	1.5	10	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.77	20	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.60	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	2.5	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	1.3	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,2-Dichlorobenzene	ND	0.76	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,2-Dichloroethane	ND	0.78	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,2-Dichloropropane	ND	1.0	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.75	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,3-Dichlorobenzene	ND	0.96	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,3-Dichloropropane	ND	1.1	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
1,4-Dichlorobenzene	ND	0.70	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
2,2-Dichloropropane	ND	1.4	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
2-Butanone	ND	30	200	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
2-Chlorotoluene	ND	0.75	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
2-Hexanone	ND	9.5	200	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
4-Chlorotoluene	ND	0.73	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
4-Methyl-2-pentanone	ND	7.7	200	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Acetone	ND	34	200	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Benzene	ND	0.89	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Bromobenzene	ND	0.84	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Bromochloromethane	ND	3.1	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Bromodichloromethane	ND	0.77	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Bromoform	ND	0.88	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Bromomethane	ND	5.9	50	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Carbon disulfide	ND	0.53	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Carbon tetrachloride	ND	0.38	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Chlorobenzene	ND	0.73	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Chloroethane	ND	2.5	50	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Chloroform	ND	0.62	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
<b>Chloromethane</b>	<b>3.4</b>	<b>1.6</b>	<b>20</b>	<b>ug/L</b>	<b>10</b>	<b>10/10/2017</b>	<b>10/10/2017 17:54</b>	<b>EPA 8260B</b>	<b>HC, J, D</b>



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-14 Port 2 (135-140)**  
**A174009-02 (Water)**

**Date Sampled**  
**10/02/2017 14:34**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

<b>cis-1,2-Dichloroethene</b>	<b>11</b>	1.1	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	D
cis-1,3-Dichloropropene	ND	0.61	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Dibromochloromethane	ND	0.91	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Dibromomethane	ND	1.4	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Dichlorodifluoromethane	ND	1.1	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Diisopropyl Ether	ND	1.5	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Ethylbenzene	ND	0.54	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Hexachlorobutadiene	ND	1.3	20	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Isopropylbenzene	ND	0.81	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
m,p-Xylene	ND	0.57	10	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Methyl t-Butyl Ether	ND	1.4	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Methylene chloride	ND	1.4	20	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Naphthalene	ND	0.88	50	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
n-Butyl Benzene	ND	1.4	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
n-Hexane	ND	2.1	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
n-Propyl Benzene	ND	1.0	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
o-Xylene	ND	0.58	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
p-Isopropyltoluene	ND	0.85	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
sec-Butyl Benzene	ND	1.3	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Styrene	ND	0.65	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
tert-Butylbenzene	ND	1.2	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
<b>Tetrachloroethene</b>	<b>250</b>	0.81	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	D
Tetrahydrofuran	ND	12	100	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Toluene	ND	0.53	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
trans-1,2-Dichloroethene	ND	1.1	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.96	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
<b>Trichloroethene</b>	<b>20</b>	0.62	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	D
Trichlorofluoromethane	ND	1.3	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Vinyl chloride	ND	1.6	5.0	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Xylenes, total	ND	1.2	15	ug/L	10	10/10/2017	10/10/2017 17:54	EPA 8260B	
Surrogate: Dibromofluoromethane			108 %	68.9-141		10/10/2017	10/10/2017 17:54	EPA 8260B	
Surrogate: Toluene-d8			96.2 %	73.3-114		10/10/2017	10/10/2017 17:54	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			92.1 %	72.2-114		10/10/2017	10/10/2017 17:54	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-14 Port 3 (100-105)**  
**A174009-03 (Water)**

**Date Sampled**  
**10/02/2017 14:55**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
<b>Acetone</b>	<b>8.4</b>	3.4	20	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	B, J
Benzene	ND	0.089	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
<b>Chloromethane</b>	<b>1.3</b>	0.16	2.0	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	J





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 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-14 Port 3 (100-105)**

**A174009-03 (Water)**

**Date Sampled**  
**10/02/2017 14:55**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
<b>Styrene</b>	<b>0.070</b>	0.065	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	B, J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
<b>Tetrachloroethene</b>	<b>0.45</b>	0.081	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	J
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Trichloroethene	ND	0.062	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/09/2017	10/09/2017 17:58	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			94.5 %	68.9-141		10/09/2017	10/09/2017 17:58	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			95.0 %	73.3-114		10/09/2017	10/09/2017 17:58	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			88.5 %	72.2-114		10/09/2017	10/09/2017 17:58	EPA 8260B	



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-16 Port 1 (175-179)**  
**A174009-04 (Water)**

**Date Sampled**  
**10/02/2017 15:39**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Benzene	ND	0.089	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
<b>Chloromethane</b>	<b>0.81</b>	0.16	2.0	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	J



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-16 Port 1 (175-179)**  
**A174009-04 (Water)**

**Date Sampled**  
**10/02/2017 15:39**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
<b>Methylene chloride</b>	<b>0.16</b>	0.14	2.0	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	B, J
Naphthalene	ND	0.088	5.0	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
<b>Styrene</b>	<b>0.070</b>	0.065	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	B, J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
<b>Tetrachloroethene</b>	<b>4.2</b>	0.081	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
<b>Trichloroethene</b>	<b>0.64</b>	0.062	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/12/2017	10/12/2017 15:32	EPA 8260B	

Surrogate: Dibromofluoromethane

98.4 % 68.9-141

10/12/2017

10/12/2017 15:32

EPA 8260B

Surrogate: Toluene-d8

94.7 % 73.3-114

10/12/2017

10/12/2017 15:32

EPA 8260B

Surrogate: 4-Bromofluorobenzene

95.3 % 72.2-114

10/12/2017

10/12/2017 15:32

EPA 8260B



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TRC Environmental Corporation, Inc.  
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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-16 Port 2 (140-144)**  
**A174009-05 (Water)**

**Date Sampled**  
**10/02/2017 16:00**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Benzene	ND	0.089	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
<b>Chloromethane</b>	<b>0.40</b>	<b>0.16</b>	<b>2.0</b>	<b>ug/L</b>	<b>1</b>	<b>10/12/2017</b>	<b>10/12/2017 16:01</b>	<b>EPA 8260B</b>	<b>J</b>



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-16 Port 2 (140-144)**  
**A174009-05 (Water)**

**Date Sampled**  
**10/02/2017 16:00**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

cis-1,2-Dichloroethene	1.8	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
<b>Tetrachloroethene</b>	<b>30</b>	0.081	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	M, X
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
<b>Trichloroethene</b>	<b>6.3</b>	0.062	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/12/2017	10/12/2017 16:01	EPA 8260B	
Surrogate: Dibromofluoromethane			98.9 %	68.9-141		10/12/2017	10/12/2017 16:01	EPA 8260B	
Surrogate: Toluene-d8			96.2 %	73.3-114		10/12/2017	10/12/2017 16:01	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			95.5 %	72.2-114		10/12/2017	10/12/2017 16:01	EPA 8260B	



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-16 Port 3 (106-116)**

**A174009-06 (Water)**

**Date Sampled**  
**10/02/2017 16:20**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
<b>Acetone</b>	<b>6.2</b>	3.4	20	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	J
Benzene	ND	0.089	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
<b>Chloromethane</b>	<b>1.6</b>	0.16	2.0	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	J



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-16 Port 3 (106-116)**

Date Sampled  
 10/02/2017 16:20

**A174009-06 (Water)**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

<b>cis-1,2-Dichloroethene</b>	<b>4.5</b>	0.11	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
<b>m,p-Xylene</b>	<b>0.060</b>	0.057	1.0	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	B, J
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
<b>Tetrachloroethene</b>	<b>45</b>	0.16	1.0	ug/L	2	10/10/2017	10/10/2017 16:01	EPA 8260B	D
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
<b>Trichloroethene</b>	<b>7.1</b>	0.062	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/10/2017	10/11/2017 16:02	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			95.1 %	68.9-141		10/10/2017	10/11/2017 16:02	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			90.2 %	73.3-114		10/10/2017	10/11/2017 16:02	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			88.0 %	72.2-114		10/10/2017	10/11/2017 16:02	EPA 8260B	





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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-15 Port 1 (177-187)**  
**A174009-07 (Water)**

**Date Sampled**  
**10/03/2017 07:55**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Benzene	ND	0.089	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
<b>Chloromethane</b>	<b>0.37</b>	<b>0.16</b>	<b>2.0</b>	<b>ug/L</b>	<b>1</b>	<b>10/10/2017</b>	<b>10/10/2017 11:17</b>	<b>EPA 8260B</b>	<b>HC, J</b>





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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-15 Port 1 (177-187)**  
**A174009-07 (Water)**

**Date Sampled**  
**10/03/2017 07:55**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

<b>cis-1,2-Dichloroethene</b>	<b>0.48</b>	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	J
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
<b>Styrene</b>	<b>0.070</b>	0.065	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	B, J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
<b>Tetrachloroethene</b>	<b>8.9</b>	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
<b>Trichloroethene</b>	<b>0.95</b>	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/10/2017	10/10/2017 11:17	EPA 8260B	

Surrogate: Dibromofluoromethane		95.9 %	68.9-141		10/10/2017	10/10/2017 11:17	EPA 8260B
Surrogate: Toluene-d8		92.5 %	73.3-114		10/10/2017	10/10/2017 11:17	EPA 8260B
Surrogate: 4-Bromofluorobenzene		88.2 %	72.2-114		10/10/2017	10/10/2017 11:17	EPA 8260B



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-15 Port 2 (142-146)**  
**A174009-08 (Water)**

**Date Sampled**  
**10/03/2017 08:35**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

1,1,1,2-Tetrachloroethane	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,1,1-Trichloroethane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,1,2-Trichloroethane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,1-Dichloroethane	ND	6.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,1-Dichloroethene	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,1-Dichloropropene	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,2,3-Trichlorobenzene	ND	2.3	100	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,2,3-Trichloropropane	ND	7.5	50	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,2,4-Trichlorobenzene	ND	3.9	100	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,2,4-Trimethylbenzene	ND	3.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	13	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,2-Dichlorobenzene	ND	3.8	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,2-Dichloroethane	ND	3.9	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,2-Dichloropropane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,3,5-Trimethylbenzene	ND	3.8	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,3-Dichlorobenzene	ND	4.8	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,3-Dichloropropane	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
1,4-Dichlorobenzene	ND	3.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
2,2-Dichloropropane	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
2-Butanone	ND	150	1000	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
2-Chlorotoluene	ND	3.8	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
2-Hexanone	ND	48	1000	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
4-Chlorotoluene	ND	3.7	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
4-Methyl-2-pentanone	ND	39	1000	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
<b>Acetone</b>	<b>230</b>	170	1000	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	J, D
Benzene	ND	4.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Bromobenzene	ND	4.2	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Bromochloromethane	ND	16	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Bromodichloromethane	ND	3.9	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Bromoform	ND	4.4	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Bromomethane	ND	30	250	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Carbon disulfide	ND	2.7	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Carbon tetrachloride	ND	1.9	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Chlorobenzene	ND	3.7	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Chloroethane	ND	13	250	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Chloroform	ND	3.1	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
<b>Chloromethane</b>	<b>9.5</b>	8.0	100	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	HC, J, D



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-15 Port 2 (142-146)**  
**A174009-08 (Water)**

**Date Sampled**  
**10/03/2017 08:35**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

<b>cis-1,2-Dichloroethene</b>	<b>180</b>	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	D
cis-1,3-Dichloropropene	ND	3.1	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Dibromochloromethane	ND	4.6	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Dibromomethane	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Dichlorodifluoromethane	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Diisopropyl Ether	ND	7.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Ethylbenzene	ND	2.7	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Hexachlorobutadiene	ND	6.5	100	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Isopropylbenzene	ND	4.1	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
<b>m,p-Xylene</b>	<b>3.0</b>	2.9	50	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	B, J, D
Methyl t-Butyl Ether	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Methylene chloride	ND	7.0	100	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Naphthalene	ND	4.4	250	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
n-Butyl Benzene	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
n-Hexane	ND	11	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
n-Propyl Benzene	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
o-Xylene	ND	2.9	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
p-Isopropyltoluene	ND	4.3	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
sec-Butyl Benzene	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
<b>Styrene</b>	<b>3.5</b>	3.3	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	B, J, D
tert-Butylbenzene	ND	6.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
<b>Tetrachloroethene</b>	<b>1800</b>	4.1	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	D
Tetrahydrofuran	ND	60	500	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
<b>Toluene</b>	<b>3.0</b>	2.7	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	J, D
trans-1,2-Dichloroethene	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
trans-1,3-Dichloropropene	ND	4.8	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
<b>Trichloroethene</b>	<b>180</b>	3.1	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	D
Trichlorofluoromethane	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Vinyl chloride	ND	8.0	25	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
Xylenes, total	ND	5.8	75	ug/L	50	10/10/2017	10/11/2017 00:29	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			<i>106 %</i>	<i>68.9-141</i>		<i>10/10/2017</i>	<i>10/11/2017 00:29</i>	<i>EPA 8260B</i>	
<i>Surrogate: Toluene-d8</i>			<i>95.1 %</i>	<i>73.3-114</i>		<i>10/10/2017</i>	<i>10/11/2017 00:29</i>	<i>EPA 8260B</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>90.4 %</i>	<i>72.2-114</i>		<i>10/10/2017</i>	<i>10/11/2017 00:29</i>	<i>EPA 8260B</i>	



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-15 Port 3 (120-125)**  
**A174009-09 (Water)**

**Date Sampled**  
**10/03/2017 08:55**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

1,1,1,2-Tetrachloroethane	ND	5.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,1,1-Trichloroethane	ND	5.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	5.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,1,2-Trichloroethane	ND	5.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	6.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,1-Dichloroethane	ND	6.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,1-Dichloroethene	ND	7.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,1-Dichloropropene	ND	5.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,2,3-Trichlorobenzene	ND	2.3	100	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,2,3-Trichloropropane	ND	7.5	50	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,2,4-Trichlorobenzene	ND	3.9	100	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,2,4-Trimethylbenzene	ND	3.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	13	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	6.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,2-Dichlorobenzene	ND	3.8	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,2-Dichloroethane	ND	3.9	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,2-Dichloropropane	ND	5.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,3,5-Trimethylbenzene	ND	3.8	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,3-Dichlorobenzene	ND	4.8	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,3-Dichloropropane	ND	5.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
1,4-Dichlorobenzene	ND	3.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
2,2-Dichloropropane	ND	7.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
2-Butanone	ND	150	1000	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
2-Chlorotoluene	ND	3.8	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
2-Hexanone	ND	48	1000	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
4-Chlorotoluene	ND	3.7	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
4-Methyl-2-pentanone	ND	39	1000	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Acetone	ND	170	1000	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Benzene	ND	4.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Bromobenzene	ND	4.2	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Bromochloromethane	ND	16	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Bromodichloromethane	ND	3.9	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Bromoform	ND	4.4	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Bromomethane	ND	30	250	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Carbon disulfide	ND	2.7	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Carbon tetrachloride	ND	1.9	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Chlorobenzene	ND	3.7	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Chloroethane	ND	13	250	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Chloroform	ND	3.1	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Chloromethane	ND	8.0	100	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	



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**MP-15 Port 3 (120-125)**  
**A174009-09 (Water)**

**Date Sampled**  
**10/03/2017 08:55**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

cis-1,2-Dichloroethene	140	5.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	D
cis-1,3-Dichloropropene	ND	3.1	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Dibromochloromethane	ND	4.6	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Dibromomethane	ND	7.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Dichlorodifluoromethane	ND	5.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Diisopropyl Ether	ND	7.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Ethylbenzene	ND	2.7	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Hexachlorobutadiene	ND	6.5	100	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Isopropylbenzene	ND	4.1	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
m,p-Xylene	ND	2.9	50	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Methyl t-Butyl Ether	ND	7.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Methylene chloride	ND	7.0	100	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Naphthalene	ND	4.4	250	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
n-Butyl Benzene	ND	7.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
n-Hexane	ND	11	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
n-Propyl Benzene	ND	5.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
o-Xylene	ND	2.9	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
p-Isopropyltoluene	ND	4.3	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
sec-Butyl Benzene	ND	6.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
<b>Styrene</b>	<b>4.0</b>	3.3	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	B, J, D
tert-Butylbenzene	ND	6.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
<b>Tetrachloroethene</b>	<b>2300</b>	8.1	50	ug/L	100	10/11/2017	10/12/2017 09:36	EPA 8260B	D
Tetrahydrofuran	ND	60	500	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Toluene	ND	2.7	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
trans-1,2-Dichloroethene	ND	5.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
trans-1,3-Dichloropropene	ND	4.8	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
<b>Trichloroethene</b>	<b>190</b>	3.1	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	D
Trichlorofluoromethane	ND	6.5	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Vinyl chloride	ND	8.0	25	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Xylenes, total	ND	5.8	75	ug/L	50	10/11/2017	10/11/2017 21:21	EPA 8260B	
Surrogate: Dibromofluoromethane			103 %	68.9-141		10/11/2017	10/11/2017 21:21	EPA 8260B	
Surrogate: Toluene-d8			97.2 %	73.3-114		10/11/2017	10/11/2017 21:21	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			95.5 %	72.2-114		10/11/2017	10/11/2017 21:21	EPA 8260B	



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-15 Port 4 (100-105)**  
**A174009-10 (Water)**

**Date Sampled**  
**10/03/2017 09:20**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	2.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,1,1-Trichloroethane	ND	2.0	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	2.0	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,1,2-Trichloroethane	ND	2.0	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	2.6	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,1-Dichloroethane	ND	2.4	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,1-Dichloroethene	ND	2.8	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,1-Dichloropropene	ND	2.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.90	40	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,2,3-Trichloropropane	ND	3.0	20	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,2,4-Trichlorobenzene	ND	1.5	40	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,2,4-Trimethylbenzene	ND	1.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	5.0	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	2.6	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,2-Dichlorobenzene	ND	1.5	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,2-Dichloroethane	ND	1.6	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,2-Dichloropropane	ND	2.0	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,3,5-Trimethylbenzene	ND	1.5	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,3-Dichlorobenzene	ND	1.9	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,3-Dichloropropane	ND	2.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
1,4-Dichlorobenzene	ND	1.4	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
2,2-Dichloropropane	ND	2.8	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
2-Butanone	ND	60	400	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
2-Chlorotoluene	ND	1.5	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
2-Hexanone	ND	19	400	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
4-Chlorotoluene	ND	1.5	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
4-Methyl-2-pentanone	ND	15	400	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Acetone	ND	68	400	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Benzene	ND	1.8	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Bromobenzene	ND	1.7	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Bromochloromethane	ND	6.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Bromodichloromethane	ND	1.5	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Bromoform	ND	1.8	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Bromomethane	ND	12	100	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Carbon disulfide	ND	1.1	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Carbon tetrachloride	ND	0.76	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Chlorobenzene	ND	1.5	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Chloroethane	ND	5.0	100	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Chloroform	ND	1.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Chloromethane	ND	3.2	40	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-15 Port 4 (100-105)**  
**A174009-10 (Water)**

**Date Sampled**  
**10/03/2017 09:20**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

cis-1,2-Dichloroethene	79	2.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	D
cis-1,3-Dichloropropene	ND	1.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Dibromochloromethane	ND	1.8	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Dibromomethane	ND	2.8	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Dichlorodifluoromethane	ND	2.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Diisopropyl Ether	ND	3.0	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Ethylbenzene	ND	1.1	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Hexachlorobutadiene	ND	2.6	40	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Isopropylbenzene	ND	1.6	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
m,p-Xylene	ND	1.1	20	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Methyl t-Butyl Ether	ND	2.8	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Methylene chloride	ND	2.8	40	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Naphthalene	ND	1.8	100	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
n-Butyl Benzene	ND	2.8	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
n-Hexane	ND	4.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
n-Propyl Benzene	ND	2.0	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
o-Xylene	ND	1.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
p-Isopropyltoluene	ND	1.7	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
sec-Butyl Benzene	ND	2.6	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
<b>Styrene</b>	<b>1.6</b>	1.3	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	B, J, D
tert-Butylbenzene	ND	2.4	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
<b>Tetrachloroethene</b>	<b>820</b>	1.6	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	D
Tetrahydrofuran	ND	24	200	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Toluene	ND	1.1	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
trans-1,2-Dichloroethene	ND	2.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
trans-1,3-Dichloropropene	ND	1.9	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
<b>Trichloroethene</b>	<b>85</b>	1.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	D
Trichlorofluoromethane	ND	2.6	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Vinyl chloride	ND	3.2	10	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Xylenes, total	ND	2.3	30	ug/L	20	10/11/2017	10/11/2017 20:25	EPA 8260B	
Surrogate: Dibromofluoromethane			104 %	68.9-141		10/11/2017	10/11/2017 20:25	EPA 8260B	
Surrogate: Toluene-d8			99.4 %	73.3-114		10/11/2017	10/11/2017 20:25	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			96.6 %	72.2-114		10/11/2017	10/11/2017 20:25	EPA 8260B	





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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-15 Port 5 (88-92)**

Date Sampled

**A174009-11 (Water)**

10/03/2017 09:36

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.55	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,1,1-Trichloroethane	ND	0.50	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.50	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,1,2-Trichloroethane	ND	0.50	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.65	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,1-Dichloroethane	ND	0.60	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,1-Dichloroethene	ND	0.70	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,1-Dichloropropene	ND	0.55	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.23	10	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,2,3-Trichloropropane	ND	0.75	5.0	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.39	10	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.30	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	1.3	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.65	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,2-Dichlorobenzene	ND	0.38	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,2-Dichloroethane	ND	0.39	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,2-Dichloropropane	ND	0.50	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.38	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,3-Dichlorobenzene	ND	0.48	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,3-Dichloropropane	ND	0.55	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
1,4-Dichlorobenzene	ND	0.35	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
2,2-Dichloropropane	ND	0.70	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
2-Butanone	ND	15	100	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
2-Chlorotoluene	ND	0.38	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
2-Hexanone	ND	4.8	100	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
4-Chlorotoluene	ND	0.37	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
4-Methyl-2-pentanone	ND	3.9	100	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
<b>Acetone</b>	<b>26</b>	17	100	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	B, J, D
Benzene	ND	0.45	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Bromobenzene	ND	0.42	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Bromochloromethane	ND	1.6	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Bromodichloromethane	ND	0.39	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Bromoform	ND	0.44	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Bromomethane	ND	3.0	25	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Carbon disulfide	ND	0.27	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Carbon tetrachloride	ND	0.19	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Chlorobenzene	ND	0.37	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Chloroethane	ND	1.3	25	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Chloroform	ND	0.31	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
<b>Chloromethane</b>	<b>1.3</b>	0.80	10	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	HC, J, D





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Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**MP-15 Port 5 (88-92)**

Date Sampled

**A174009-11 (Water)**

**10/03/2017 09:36**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

<b>cis-1,2-Dichloroethene</b>	<b>17</b>	0.55	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	D
cis-1,3-Dichloropropene	ND	0.31	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Dibromochloromethane	ND	0.46	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Dibromomethane	ND	0.70	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Dichlorodifluoromethane	ND	0.55	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Diisopropyl Ether	ND	0.75	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Ethylbenzene	ND	0.27	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Hexachlorobutadiene	ND	0.65	10	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Isopropylbenzene	ND	0.41	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
<b>m,p-Xylene</b>	<b>0.30</b>	0.29	5.0	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	B, J, D
Methyl t-Butyl Ether	ND	0.70	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Methylene chloride	ND	0.70	10	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Naphthalene	ND	0.44	25	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
n-Butyl Benzene	ND	0.70	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
n-Hexane	ND	1.1	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
n-Propyl Benzene	ND	0.50	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
o-Xylene	ND	0.29	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
p-Isopropyltoluene	ND	0.43	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
sec-Butyl Benzene	ND	0.65	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
<b>Styrene</b>	<b>0.35</b>	0.33	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	B, J, D
tert-Butylbenzene	ND	0.60	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
<b>Tetrachloroethene</b>	<b>160</b>	0.41	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	D
Tetrahydrofuran	ND	6.0	50	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Toluene	ND	0.27	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.55	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.48	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
<b>Trichloroethene</b>	<b>14</b>	0.31	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	D
Trichlorofluoromethane	ND	0.65	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Vinyl chloride	ND	0.80	2.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
Xylenes, total	ND	0.58	7.5	ug/L	5	10/10/2017	10/10/2017 17:26	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			108 %	68.9-141		10/10/2017	10/10/2017 17:26	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			95.3 %	73.3-114		10/10/2017	10/10/2017 17:26	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			89.8 %	72.2-114		10/10/2017	10/10/2017 17:26	EPA 8260B	



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 1 (163-167)**  
**A174009-12 (Water)**

**Date Sampled**  
**10/03/2017 10:45**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
<b>Acetone</b>	<b>5.2</b>	3.4	20	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	B, J
Benzene	ND	0.089	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
<b>Chloromethane</b>	<b>0.46</b>	0.16	2.0	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	HC, J



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 1 (163-167)**  
**A174009-12 (Water)**

**Date Sampled**  
**10/03/2017 10:45**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

<b>cis-1,2-Dichloroethene</b>	<b>3.6</b>	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
<b>Tetrachloroethene</b>	<b>45</b>	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
<b>Toluene</b>	<b>0.080</b>	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	B, J
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
<b>Trichloroethene</b>	<b>4.4</b>	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/10/2017	10/10/2017 11:46	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			99.7 %	68.9-141		10/10/2017	10/10/2017 11:46	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			95.1 %	73.3-114		10/10/2017	10/10/2017 11:46	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			88.8 %	72.2-114		10/10/2017	10/10/2017 11:46	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 2 (135-139)**

**A174009-13 (Water)**

**Date Sampled**  
**10/03/2017 11:03**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

1,1,1,2-Tetrachloroethane	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,1,1-Trichloroethane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,1,2-Trichloroethane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,1-Dichloroethane	ND	6.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,1-Dichloroethene	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,1-Dichloropropene	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,2,3-Trichlorobenzene	ND	2.3	100	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,2,3-Trichloropropane	ND	7.5	50	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,2,4-Trichlorobenzene	ND	3.9	100	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,2,4-Trimethylbenzene	ND	3.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	13	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,2-Dichlorobenzene	ND	3.8	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,2-Dichloroethane	ND	3.9	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,2-Dichloropropane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,3,5-Trimethylbenzene	ND	3.8	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,3-Dichlorobenzene	ND	4.8	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,3-Dichloropropane	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
1,4-Dichlorobenzene	ND	3.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
2,2-Dichloropropane	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
2-Butanone	ND	150	1000	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
2-Chlorotoluene	ND	3.8	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
2-Hexanone	ND	48	1000	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
4-Chlorotoluene	ND	3.7	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
4-Methyl-2-pentanone	ND	39	1000	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
<b>Acetone</b>	<b>260</b>	170	1000	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	J, D
Benzene	ND	4.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Bromobenzene	ND	4.2	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Bromochloromethane	ND	16	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Bromodichloromethane	ND	3.9	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Bromoform	ND	4.4	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Bromomethane	ND	30	250	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Carbon disulfide	ND	2.7	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Carbon tetrachloride	ND	1.9	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Chlorobenzene	ND	3.7	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Chloroethane	ND	13	250	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Chloroform	ND	3.1	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
<b>Chloromethane</b>	<b>11</b>	8.0	100	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	HC, J, D



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 2 (135-139)**  
**A174009-13 (Water)**

**Date Sampled**  
**10/03/2017 11:03**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

cis-1,2-Dichloroethene	190	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	D
cis-1,3-Dichloropropene	ND	3.1	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Dibromochloromethane	ND	4.6	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Dibromomethane	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Dichlorodifluoromethane	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Diisopropyl Ether	ND	7.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Ethylbenzene	ND	2.7	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Hexachlorobutadiene	ND	6.5	100	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Isopropylbenzene	ND	4.1	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
m,p-Xylene	ND	2.9	50	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Methyl t-Butyl Ether	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Methylene chloride	ND	7.0	100	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Naphthalene	ND	4.4	250	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
n-Butyl Benzene	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
n-Hexane	ND	11	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
n-Propyl Benzene	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
o-Xylene	ND	2.9	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
p-Isopropyltoluene	ND	4.3	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
sec-Butyl Benzene	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Styrene	3.5	3.3	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	B, J, D
tert-Butylbenzene	ND	6.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Tetrachloroethene	4100	8.1	50	ug/L	100	10/10/2017	10/11/2017 21:49	EPA 8260B	D
Tetrahydrofuran	ND	60	500	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Toluene	ND	2.7	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
trans-1,2-Dichloroethene	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
trans-1,3-Dichloropropene	ND	4.8	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Trichloroethene	250	3.1	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	D
Trichlorofluoromethane	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Vinyl chloride	ND	8.0	25	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Xylenes, total	ND	5.8	75	ug/L	50	10/10/2017	10/11/2017 00:57	EPA 8260B	
Surrogate: Dibromofluoromethane			107 %	68.9-141		10/10/2017	10/11/2017 00:57	EPA 8260B	
Surrogate: Toluene-d8			95.4 %	73.3-114		10/10/2017	10/11/2017 00:57	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			87.1 %	72.2-114		10/10/2017	10/11/2017 00:57	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 3 (121-125)**  
**A174009-14 (Water)**

**Date Sampled**  
**10/03/2017 11:15**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,1,1-Trichloroethane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,1,2-Trichloroethane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,1-Dichloroethane	ND	6.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,1-Dichloroethene	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,1-Dichloropropene	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,2,3-Trichlorobenzene	ND	2.3	100	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,2,3-Trichloropropane	ND	7.5	50	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,2,4-Trichlorobenzene	ND	3.9	100	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,2,4-Trimethylbenzene	ND	3.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	13	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,2-Dichlorobenzene	ND	3.8	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,2-Dichloroethane	ND	3.9	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,2-Dichloropropane	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,3,5-Trimethylbenzene	ND	3.8	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,3-Dichlorobenzene	ND	4.8	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,3-Dichloropropane	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
1,4-Dichlorobenzene	ND	3.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
2,2-Dichloropropane	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
2-Butanone	ND	150	1000	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
2-Chlorotoluene	ND	3.8	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
2-Hexanone	ND	48	1000	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
4-Chlorotoluene	ND	3.7	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
4-Methyl-2-pentanone	ND	39	1000	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
<b>Acetone</b>	<b>280</b>	170	1000	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	B, J, D
Benzene	ND	4.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Bromobenzene	ND	4.2	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Bromochloromethane	ND	16	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Bromodichloromethane	ND	3.9	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Bromoform	ND	4.4	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Bromomethane	ND	30	250	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Carbon disulfide	ND	2.7	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Carbon tetrachloride	ND	1.9	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Chlorobenzene	ND	3.7	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Chloroethane	ND	13	250	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Chloroform	ND	3.1	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
<b>Chloromethane</b>	<b>9.5</b>	8.0	100	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	HC, J, D



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 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 3 (121-125)**  
**A174009-14 (Water)**

Date Sampled  
 10/03/2017 11:15

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

cis-1,2-Dichloroethene	240	5.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	D
cis-1,3-Dichloropropene	ND	3.1	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Dibromochloromethane	ND	4.6	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Dibromomethane	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Dichlorodifluoromethane	ND	5.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Diisopropyl Ether	ND	7.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Ethylbenzene	ND	2.7	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Hexachlorobutadiene	ND	6.5	100	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Isopropylbenzene	ND	4.1	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
<b>m,p-Xylene</b>	<b>3.0</b>	2.9	50	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	B, J, D
Methyl t-Butyl Ether	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Methylene chloride	ND	7.0	100	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Naphthalene	ND	4.4	250	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
n-Butyl Benzene	ND	7.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
n-Hexane	ND	11	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
n-Propyl Benzene	ND	5.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
o-Xylene	ND	2.9	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
p-Isopropyltoluene	ND	4.3	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
sec-Butyl Benzene	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
<b>Styrene</b>	<b>3.5</b>	3.3	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	B, J, D
tert-Butylbenzene	ND	6.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
<b>Tetrachloroethene</b>	<b>3000</b>	8.1	50	ug/L	100	10/10/2017	10/11/2017 22:17	EPA 8260B	D
Tetrahydrofuran	ND	60	500	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Toluene	ND	2.7	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>6.0</b>	5.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	J, D
trans-1,3-Dichloropropene	ND	4.8	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
<b>Trichloroethene</b>	<b>460</b>	3.1	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	D
Trichlorofluoromethane	ND	6.5	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Vinyl chloride	ND	8.0	25	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Xylenes, total	ND	5.8	75	ug/L	50	10/10/2017	10/11/2017 01:25	EPA 8260B	
Surrogate: Dibromofluoromethane			109 %	68.9-141		10/10/2017	10/11/2017 01:25	EPA 8260B	
Surrogate: Toluene-d8			96.1 %	73.3-114		10/10/2017	10/11/2017 01:25	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			89.7 %	72.2-114		10/10/2017	10/11/2017 01:25	EPA 8260B	





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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 4 (102-106)**  
**A174009-15 (Water)**

**Date Sampled**  
**10/03/2017 11:35**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

1,1,1,2-Tetrachloroethane	ND	2.8	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,1,1-Trichloroethane	ND	2.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	2.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,1,2-Trichloroethane	ND	2.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	3.3	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,1-Dichloroethane	ND	3.0	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,1-Dichloroethene	ND	3.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,1-Dichloropropene	ND	2.8	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,2,3-Trichlorobenzene	ND	1.1	50	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,2,3-Trichloropropane	ND	3.8	25	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,2,4-Trichlorobenzene	ND	1.9	50	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,2,4-Trimethylbenzene	ND	1.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	6.3	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	3.3	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,2-Dichlorobenzene	ND	1.9	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,2-Dichloroethane	ND	2.0	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,2-Dichloropropane	ND	2.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,3,5-Trimethylbenzene	ND	1.9	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,3-Dichlorobenzene	ND	2.4	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,3-Dichloropropane	ND	2.8	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
1,4-Dichlorobenzene	ND	1.8	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
2,2-Dichloropropane	ND	3.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
2-Butanone	ND	75	500	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
2-Chlorotoluene	ND	1.9	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
2-Hexanone	ND	24	500	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
4-Chlorotoluene	ND	1.8	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
4-Methyl-2-pentanone	ND	19	500	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Acetone	ND	85	500	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Benzene	ND	2.2	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Bromobenzene	ND	2.1	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Bromochloromethane	ND	7.8	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Bromodichloromethane	ND	1.9	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Bromoform	ND	2.2	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Bromomethane	ND	15	130	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Carbon disulfide	ND	1.3	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Carbon tetrachloride	ND	0.95	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Chlorobenzene	ND	1.8	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Chloroethane	ND	6.3	130	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Chloroform	ND	1.6	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Chloromethane	ND	4.0	50	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	





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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 4 (102-106)**  
**A174009-15 (Water)**

**Date Sampled**  
**10/03/2017 11:35**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

<b>cis-1,2-Dichloroethene</b>	<b>350</b>	2.8	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	D
cis-1,3-Dichloropropene	ND	1.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Dibromochloromethane	ND	2.3	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Dibromomethane	ND	3.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Dichlorodifluoromethane	ND	2.8	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Diisopropyl Ether	ND	3.8	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Ethylbenzene	ND	1.4	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Hexachlorobutadiene	ND	3.3	50	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Isopropylbenzene	ND	2.0	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
m,p-Xylene	ND	1.4	25	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Methyl t-Butyl Ether	ND	3.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Methylene chloride	ND	3.5	50	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Naphthalene	ND	2.2	130	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
n-Butyl Benzene	ND	3.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
n-Hexane	ND	5.3	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
n-Propyl Benzene	ND	2.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
o-Xylene	ND	1.5	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
p-Isopropyltoluene	ND	2.1	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
sec-Butyl Benzene	ND	3.3	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
<b>Styrene</b>	<b>1.8</b>	1.6	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	B, J, D
tert-Butylbenzene	ND	3.0	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
<b>Tetrachloroethene</b>	<b>970</b>	2.0	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	D
Tetrahydrofuran	ND	30	250	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Toluene	ND	1.3	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>7.3</b>	2.8	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	J, D
trans-1,3-Dichloropropene	ND	2.4	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
<b>Trichloroethene</b>	<b>230</b>	1.6	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	D
Trichlorofluoromethane	ND	3.3	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Vinyl chloride	ND	4.0	13	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
Xylenes, total	ND	2.9	38	ug/L	25	10/11/2017	10/11/2017 20:53	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			<i>102 %</i>	<i>68.9-141</i>		<i>10/11/2017</i>	<i>10/11/2017 20:53</i>	<i>EPA 8260B</i>	
<i>Surrogate: Toluene-d8</i>			<i>95.4 %</i>	<i>73.3-114</i>		<i>10/11/2017</i>	<i>10/11/2017 20:53</i>	<i>EPA 8260B</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>96.1 %</i>	<i>72.2-114</i>		<i>10/11/2017</i>	<i>10/11/2017 20:53</i>	<i>EPA 8260B</i>	



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 5 (81-85)**  
**A174009-16 (Water)**

**Date Sampled**  
**10/03/2017 11:52**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	11	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,1,1-Trichloroethane	ND	10	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	9.9	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,1,2-Trichloroethane	ND	10	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	13	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,1-Dichloroethane	ND	12	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,1-Dichloroethene	ND	14	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,1-Dichloropropene	ND	11	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,2,3-Trichlorobenzene	ND	4.5	200	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,2,3-Trichloropropane	ND	15	100	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,2,4-Trichlorobenzene	ND	7.7	200	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,2,4-Trimethylbenzene	ND	6.0	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	25	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	13	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,2-Dichlorobenzene	ND	7.6	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,2-Dichloroethane	ND	7.8	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,2-Dichloropropane	ND	10	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	7.5	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,3-Dichlorobenzene	ND	9.6	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,3-Dichloropropane	ND	11	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
1,4-Dichlorobenzene	ND	7.0	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
2,2-Dichloropropane	ND	14	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
2-Butanone	ND	300	2000	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
2-Chlorotoluene	ND	7.5	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
2-Hexanone	ND	95	2000	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
4-Chlorotoluene	ND	7.3	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
4-Methyl-2-pentanone	ND	77	2000	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
<b>Acetone</b>	<b>500</b>	340	2000	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	J, D
Benzene	ND	8.9	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Bromobenzene	ND	8.4	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Bromochloromethane	ND	31	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Bromodichloromethane	ND	7.7	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Bromoform	ND	8.8	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Bromomethane	ND	59	500	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Carbon disulfide	ND	5.3	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Carbon tetrachloride	ND	3.8	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Chlorobenzene	ND	7.3	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Chloroethane	ND	25	500	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Chloroform	ND	6.2	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Chloromethane	ND	16	200	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	HC



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 5 (81-85)**  
**A174009-16 (Water)**

**Date Sampled**  
**10/03/2017 11:52**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

<b>cis-1,2-Dichloroethene</b>	<b>670</b>	11	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	D
cis-1,3-Dichloropropene	ND	6.1	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Dibromochloromethane	ND	9.1	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Dibromomethane	ND	14	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Dichlorodifluoromethane	ND	11	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Diisopropyl Ether	ND	15	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Ethylbenzene	ND	5.4	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Hexachlorobutadiene	ND	13	200	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Isopropylbenzene	ND	8.1	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
<b>m,p-Xylene</b>	<b>6.0</b>	5.7	100	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	B, J, D
Methyl t-Butyl Ether	ND	14	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Methylene chloride	ND	14	200	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Naphthalene	ND	8.8	500	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
n-Butyl Benzene	ND	14	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
n-Hexane	ND	21	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
n-Propyl Benzene	ND	10	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
o-Xylene	ND	5.8	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
p-Isopropyltoluene	ND	8.5	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
sec-Butyl Benzene	ND	13	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Styrene	ND	6.5	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
tert-Butylbenzene	ND	12	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
<b>Tetrachloroethene</b>	<b>3200</b>	8.1	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	D
Tetrahydrofuran	ND	120	1000	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
Toluene	ND	5.3	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>12</b>	11	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	J, D
trans-1,3-Dichloropropene	ND	9.6	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
<b>Trichloroethene</b>	<b>390</b>	6.2	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	D
Trichlorofluoromethane	ND	13	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
<b>Vinyl chloride</b>	<b>54</b>	16	50	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	HC, D
Xylenes, total	ND	12	150	ug/L	100	10/10/2017	10/11/2017 02:22	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			<i>108 %</i>	<i>68.9-141</i>		<i>10/10/2017</i>	<i>10/11/2017 02:22</i>	<i>EPA 8260B</i>	
<i>Surrogate: Toluene-d8</i>			<i>96.8 %</i>	<i>73.3-114</i>		<i>10/10/2017</i>	<i>10/11/2017 02:22</i>	<i>EPA 8260B</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>88.4 %</i>	<i>72.2-114</i>		<i>10/10/2017</i>	<i>10/11/2017 02:22</i>	<i>EPA 8260B</i>	



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TRC Environmental Corporation, Inc.  
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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 6 (67-71)**  
**A174009-17 (Water)**

**Date Sampled**  
**10/03/2017 12:08**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,1,1-Trichloroethane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,1,2-Trichloroethane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,1-Dichloroethane	ND	0.24	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,1-Dichloroethene	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,1-Dichloropropene	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.090	4.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,2,3-Trichloropropane	ND	0.30	2.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.15	4.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.50	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,2-Dichlorobenzene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,2-Dichloroethane	ND	0.16	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,2-Dichloropropane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,3-Dichlorobenzene	ND	0.19	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,3-Dichloropropane	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
1,4-Dichlorobenzene	ND	0.14	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
2,2-Dichloropropane	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
2-Butanone	ND	6.0	40	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
2-Chlorotoluene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
2-Hexanone	ND	1.9	40	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
4-Chlorotoluene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
4-Methyl-2-pentanone	ND	1.5	40	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Acetone	ND	6.8	40	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Benzene	ND	0.18	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Bromobenzene	ND	0.17	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Bromochloromethane	ND	0.62	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Bromodichloromethane	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Bromoform	ND	0.18	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Bromomethane	ND	1.2	10	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Carbon disulfide	ND	0.11	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Carbon tetrachloride	ND	0.076	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Chlorobenzene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Chloroethane	ND	0.50	10	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
<b>Chloroform</b>	<b>0.18</b>	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	J, D
Chloromethane	ND	0.32	4.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 6 (67-71)**

**A174009-17 (Water)**

**Date Sampled**  
**10/03/2017 12:08**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

<b>cis-1,2-Dichloroethene</b>	<b>24</b>	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	D
cis-1,3-Dichloropropene	ND	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Dibromochloromethane	ND	0.18	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Dibromomethane	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Dichlorodifluoromethane	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Diisopropyl Ether	ND	0.30	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Ethylbenzene	ND	0.11	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Hexachlorobutadiene	ND	0.26	4.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Isopropylbenzene	ND	0.16	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
m,p-Xylene	ND	0.11	2.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Methyl t-Butyl Ether	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Methylene chloride	ND	0.28	4.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Naphthalene	ND	0.18	10	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
n-Butyl Benzene	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
n-Hexane	ND	0.42	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
n-Propyl Benzene	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
o-Xylene	ND	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
p-Isopropyltoluene	ND	0.17	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
sec-Butyl Benzene	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Styrene	ND	0.13	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
tert-Butylbenzene	ND	0.24	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
<b>Tetrachloroethene</b>	<b>84</b>	0.16	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	D
Tetrahydrofuran	ND	2.4	20	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
Toluene	ND	0.11	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>0.48</b>	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	J, D
trans-1,3-Dichloropropene	ND	0.19	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
<b>Trichloroethene</b>	<b>18</b>	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	D
Trichlorofluoromethane	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
<b>Vinyl chloride</b>	<b>0.60</b>	0.32	1.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	J, D
Xylenes, total	ND	0.23	3.0	ug/L	2	10/11/2017	10/11/2017 19:01	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			104 %	68.9-141		10/11/2017	10/11/2017 19:01	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			101 %	73.3-114		10/11/2017	10/11/2017 19:01	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			98.3 %	72.2-114		10/11/2017	10/11/2017 19:01	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 7 (44-48)**  
**A174009-18 (Water)**

**Date Sampled**  
**10/03/2017 12:25**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

1,1,1,2-Tetrachloroethane	ND	0.44	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,1,1-Trichloroethane	ND	0.40	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.40	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,1,2-Trichloroethane	ND	0.40	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.52	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,1-Dichloroethane	ND	0.48	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,1-Dichloroethene	ND	0.56	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,1-Dichloropropene	ND	0.44	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.18	8.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,2,3-Trichloropropane	ND	0.60	4.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.31	8.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.24	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	1.0	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.52	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,2-Dichlorobenzene	ND	0.30	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,2-Dichloroethane	ND	0.31	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,2-Dichloropropane	ND	0.40	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.30	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,3-Dichlorobenzene	ND	0.38	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,3-Dichloropropane	ND	0.44	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
1,4-Dichlorobenzene	ND	0.28	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
2,2-Dichloropropane	ND	0.56	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
2-Butanone	ND	12	80	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
2-Chlorotoluene	ND	0.30	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
2-Hexanone	ND	3.8	80	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
4-Chlorotoluene	ND	0.29	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
4-Methyl-2-pentanone	ND	3.1	80	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Acetone	ND	14	80	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Benzene	ND	0.36	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Bromobenzene	ND	0.34	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Bromochloromethane	ND	1.2	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Bromodichloromethane	ND	0.31	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Bromoform	ND	0.35	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Bromomethane	ND	2.4	20	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Carbon disulfide	ND	0.21	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Carbon tetrachloride	ND	0.15	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Chlorobenzene	ND	0.29	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Chloroethane	ND	1.0	20	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Chloroform	ND	0.25	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Chloromethane	ND	0.64	8.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MP-13 Port 7 (44-48)**

Date Sampled  
 10/03/2017 12:25

**A174009-18 (Water)**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

<b>cis-1,2-Dichloroethene</b>	<b>50</b>	0.44	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	D
cis-1,3-Dichloropropene	ND	0.24	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Dibromochloromethane	ND	0.36	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Dibromomethane	ND	0.56	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Dichlorodifluoromethane	ND	0.44	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Diisopropyl Ether	ND	0.60	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Ethylbenzene	ND	0.22	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Hexachlorobutadiene	ND	0.52	8.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Isopropylbenzene	ND	0.32	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
m,p-Xylene	ND	0.23	4.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Methyl t-Butyl Ether	ND	0.56	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Methylene chloride	ND	0.56	8.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Naphthalene	ND	0.35	20	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
n-Butyl Benzene	ND	0.56	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
n-Hexane	ND	0.84	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
n-Propyl Benzene	ND	0.40	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
o-Xylene	ND	0.23	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
p-Isopropyltoluene	ND	0.34	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
sec-Butyl Benzene	ND	0.52	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Styrene	ND	0.26	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
tert-Butylbenzene	ND	0.48	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
<b>Tetrachloroethene</b>	<b>160</b>	0.32	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	D
Tetrahydrofuran	ND	4.8	40	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
Toluene	ND	0.21	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>0.68</b>	0.44	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	J, D
trans-1,3-Dichloropropene	ND	0.38	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
<b>Trichloroethene</b>	<b>59</b>	0.25	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	D
Trichlorofluoromethane	ND	0.52	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
<b>Vinyl chloride</b>	<b>1.5</b>	0.64	2.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	J, D
Xylenes, total	ND	0.46	6.0	ug/L	4	10/11/2017	10/11/2017 19:57	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			101 %	68.9-141		10/11/2017	10/11/2017 19:57	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			98.1 %	73.3-114		10/11/2017	10/11/2017 19:57	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			96.5 %	72.2-114		10/11/2017	10/11/2017 19:57	EPA 8260B	





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TRC Environmental Corporation, Inc.  
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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-25D2**  
**A174009-19 (Water)**

**Date Sampled**  
**10/03/2017 14:46**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Benzene	ND	0.089	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
<b>Chloromethane</b>	<b>0.37</b>	<b>0.16</b>	<b>2.0</b>	<b>ug/L</b>	<b>1</b>	<b>10/10/2017</b>	<b>10/10/2017 12:14</b>	<b>EPA 8260B</b>	<b>HC, J</b>





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Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**MW-25D2**

**A174009-19 (Water)**

**Date Sampled**  
**10/03/2017 14:46**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
<b>Styrene</b>	<b>0.080</b>	0.065	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	B, J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
<b>Tetrachloroethene</b>	<b>0.10</b>	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	J
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
<b>Toluene</b>	<b>0.070</b>	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	B, J
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Trichloroethene	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/10/2017	10/10/2017 12:14	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			96.2 %	68.9-141		10/10/2017	10/10/2017 12:14	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			96.3 %	73.3-114		10/10/2017	10/10/2017 12:14	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			88.9 %	72.2-114		10/10/2017	10/10/2017 12:14	EPA 8260B	



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-25D**  
**A174009-20 (Water)**

**Date Sampled**  
**10/03/2017 16:34**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Benzene	ND	0.089	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
<b>Chloroform</b>	<b>0.080</b>	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	J
<b>Chloromethane</b>	<b>0.82</b>	0.16	2.0	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	HC, J



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-25D**  
**A174009-20 (Water)**

**Date Sampled**  
**10/03/2017 16:34**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
<b>m,p-Xylene</b>	<b>0.060</b>	0.057	1.0	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	B, J
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
<b>Methylene chloride</b>	<b>0.51</b>	0.14	2.0	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	J
Naphthalene	ND	0.088	5.0	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
<b>Styrene</b>	<b>0.070</b>	0.065	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	B, J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
<b>Tetrachloroethene</b>	<b>0.37</b>	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	J
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
<b>Toluene</b>	<b>0.070</b>	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	B, J
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Trichloroethene	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/10/2017	10/10/2017 12:42	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			99.5 %	68.9-141		10/10/2017	10/10/2017 12:42	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			95.2 %	73.3-114		10/10/2017	10/10/2017 12:42	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			91.5 %	72.2-114		10/10/2017	10/10/2017 12:42	EPA 8260B	



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-27D2**  
**A174009-21 (Water)**

**Date Sampled**  
**10/04/2017 09:02**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
<b>Acetone</b>	<b>3.5</b>	3.4	20	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	J
Benzene	ND	0.089	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
<b>Chloromethane</b>	<b>0.46</b>	0.16	2.0	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	J



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-27D2**  
**A174009-21 (Water)**

**Date Sampled**  
**10/04/2017 09:02**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

<b>cis-1,2-Dichloroethene</b>	<b>9.4</b>	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
<b>Tetrachloroethene</b>	<b>24</b>	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
<b>Toluene</b>	<b>0.080</b>	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	J
<b>trans-1,2-Dichloroethene</b>	<b>0.33</b>	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	J
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
<b>Trichloroethene</b>	<b>18</b>	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/11/2017	10/11/2017 16:30	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			98.4 %	68.9-141		10/11/2017	10/11/2017 16:30	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			93.2 %	73.3-114		10/11/2017	10/11/2017 16:30	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			89.7 %	72.2-114		10/11/2017	10/11/2017 16:30	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-27D**  
**A174009-22 (Water)**

**Date Sampled**  
**10/04/2017 10:19**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
<b>Acetone</b>	<b>3.7</b>	3.4	20	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	B, J
Benzene	ND	0.089	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
<b>Chloromethane</b>	<b>0.40</b>	0.16	2.0	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	HC, J



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-27D**  
**A174009-22 (Water)**

**Date Sampled**  
**10/04/2017 10:19**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

cis-1,2-Dichloroethene	0.89	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
<b>m,p-Xylene</b>	<b>0.060</b>	0.057	1.0	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	B, J
<b>Methyl t-Butyl Ether</b>	<b>0.39</b>	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	J
Methylene chloride	ND	0.14	2.0	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
<b>Styrene</b>	<b>0.070</b>	0.065	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	B, J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
<b>Tetrachloroethene</b>	<b>1.9</b>	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
<b>Toluene</b>	<b>0.090</b>	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	B, J
<b>trans-1,2-Dichloroethene</b>	<b>0.13</b>	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	J
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
<b>Trichloroethene</b>	<b>1.6</b>	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/10/2017	10/10/2017 13:11	EPA 8260B	
Surrogate: Dibromofluoromethane			97.7 %	68.9-141		10/10/2017	10/10/2017 13:11	EPA 8260B	
Surrogate: Toluene-d8			95.7 %	73.3-114		10/10/2017	10/10/2017 13:11	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			92.5 %	72.2-114		10/10/2017	10/10/2017 13:11	EPA 8260B	





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TRC Environmental Corporation, Inc.  
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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-5D3**  
**A174009-23 (Water)**

**Date Sampled**  
**10/04/2017 12:13**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Benzene	ND	0.089	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
<b>Chloromethane</b>	<b>0.22</b>	<b>0.16</b>	<b>2.0</b>	<b>ug/L</b>	<b>1</b>	<b>10/10/2017</b>	<b>10/10/2017 13:40</b>	<b>EPA 8260B</b>	<b>HC, J</b>





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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-5D3**  
**A174009-23 (Water)**

**Date Sampled**  
**10/04/2017 12:13**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
<b>m,p-Xylene</b>	<b>0.060</b>	0.057	1.0	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	B, J
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Tetrachloroethene	ND	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
<b>Toluene</b>	<b>0.080</b>	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	B, J
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Trichloroethene	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/10/2017	10/10/2017 13:40	EPA 8260B	
Surrogate: Dibromofluoromethane			102 %	68.9-141		10/10/2017	10/10/2017 13:40	EPA 8260B	
Surrogate: Toluene-d8			97.7 %	73.3-114		10/10/2017	10/10/2017 13:40	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			90.1 %	72.2-114		10/10/2017	10/10/2017 13:40	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-5S**  
**A174009-24 (Water)**

**Date Sampled**  
**10/04/2017 12:19**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
<b>Acetone</b>	<b>3.5</b>	3.4	20	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	J
Benzene	ND	0.089	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
<b>Carbon tetrachloride</b>	<b>0.81</b>	0.038	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
<b>Chloromethane</b>	<b>1.3</b>	0.16	2.0	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	J



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-5S**  
**A174009-24 (Water)**

**Date Sampled**  
**10/04/2017 12:19**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
<b>m,p-Xylene</b>	<b>0.060</b>	0.057	1.0	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	B, J
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
<b>Tetrachloroethene</b>	<b>46</b>	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
<b>Trichloroethene</b>	<b>0.15</b>	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	J
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/11/2017	10/11/2017 16:58	EPA 8260B	

Surrogate: Dibromofluoromethane	97.3 %	68.9-141	10/11/2017	10/11/2017 16:58	EPA 8260B
Surrogate: Toluene-d8	91.5 %	73.3-114	10/11/2017	10/11/2017 16:58	EPA 8260B
Surrogate: 4-Bromofluorobenzene	89.4 %	72.2-114	10/11/2017	10/11/2017 16:58	EPA 8260B



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-5D**  
**A174009-25 (Water)**

**Date Sampled**  
**10/04/2017 13:18**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,1,1-Trichloroethane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,1,2-Trichloroethane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,1-Dichloroethane	ND	0.24	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,1-Dichloroethene	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,1-Dichloropropene	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.090	4.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,2,3-Trichloropropane	ND	0.30	2.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.15	4.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.50	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,2-Dichlorobenzene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,2-Dichloroethane	ND	0.16	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,2-Dichloropropane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,3-Dichlorobenzene	ND	0.19	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,3-Dichloropropane	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
1,4-Dichlorobenzene	ND	0.14	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
2,2-Dichloropropane	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
2-Butanone	ND	6.0	40	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
2-Chlorotoluene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
2-Hexanone	ND	1.9	40	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
4-Chlorotoluene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
4-Methyl-2-pentanone	ND	1.5	40	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Acetone	ND	6.8	40	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Benzene	ND	0.18	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Bromobenzene	ND	0.17	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Bromochloromethane	ND	0.62	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Bromodichloromethane	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Bromoform	ND	0.18	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Bromomethane	ND	1.2	10	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Carbon disulfide	ND	0.11	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Carbon tetrachloride	ND	0.076	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Chlorobenzene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Chloroethane	ND	0.50	10	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Chloroform	ND	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
<b>Chloromethane</b>	<b>1.4</b>	<b>0.32</b>	<b>4.0</b>	<b>ug/L</b>	<b>2</b>	<b>10/11/2017</b>	<b>10/11/2017 19:29</b>	<b>EPA 8260B</b>	<b>J, D</b>



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-5D**  
**A174009-25 (Water)**

**Date Sampled**  
**10/04/2017 13:18**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710036**

cis-1,2-Dichloroethene	4.0	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	D
cis-1,3-Dichloropropene	ND	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Dibromochloromethane	ND	0.18	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Dibromomethane	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Dichlorodifluoromethane	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Diisopropyl Ether	ND	0.30	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Ethylbenzene	ND	0.11	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Hexachlorobutadiene	ND	0.26	4.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Isopropylbenzene	ND	0.16	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
m,p-Xylene	ND	0.11	2.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Methyl t-Butyl Ether	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Methylene chloride	ND	0.28	4.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Naphthalene	ND	0.18	10	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
n-Butyl Benzene	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
n-Hexane	ND	0.42	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
n-Propyl Benzene	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
o-Xylene	ND	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
p-Isopropyltoluene	ND	0.17	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
sec-Butyl Benzene	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Styrene	ND	0.13	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
tert-Butylbenzene	ND	0.24	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
<b>Tetrachloroethene</b>	<b>68</b>	0.16	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	D
Tetrahydrofuran	ND	2.4	20	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Toluene	ND	0.11	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.19	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
<b>Trichloroethene</b>	<b>3.7</b>	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	D
Trichlorofluoromethane	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Vinyl chloride	ND	0.32	1.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Xylenes, total	ND	0.23	3.0	ug/L	2	10/11/2017	10/11/2017 19:29	EPA 8260B	
Surrogate: Dibromofluoromethane			115 %	68.9-141		10/11/2017	10/11/2017 19:29	EPA 8260B	
Surrogate: Toluene-d8			104 %	73.3-114		10/11/2017	10/11/2017 19:29	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			102 %	72.2-114		10/11/2017	10/11/2017 19:29	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-5D2**  
**A174009-26 (Water)**

**Date Sampled**  
**10/04/2017 14:38**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,1,1-Trichloroethane	ND	2.0	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	2.0	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,1,2-Trichloroethane	ND	2.0	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	2.6	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,1-Dichloroethane	ND	2.4	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,1-Dichloroethene	ND	2.8	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,1-Dichloropropene	ND	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.90	40	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,2,3-Trichloropropane	ND	3.0	20	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,2,4-Trichlorobenzene	ND	1.5	40	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,2,4-Trimethylbenzene	ND	1.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	5.0	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	2.6	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,2-Dichlorobenzene	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,2-Dichloroethane	ND	1.6	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,2-Dichloropropane	ND	2.0	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,3,5-Trimethylbenzene	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,3-Dichlorobenzene	ND	1.9	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,3-Dichloropropane	ND	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
1,4-Dichlorobenzene	ND	1.4	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
2,2-Dichloropropane	ND	2.8	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
2-Butanone	ND	60	400	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
2-Chlorotoluene	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
2-Hexanone	ND	19	400	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
4-Chlorotoluene	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
4-Methyl-2-pentanone	ND	15	400	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Acetone	ND	68	400	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Benzene	ND	1.8	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Bromobenzene	ND	1.7	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Bromochloromethane	ND	6.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Bromodichloromethane	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Bromoform	ND	1.8	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Bromomethane	ND	12	100	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Carbon disulfide	ND	1.1	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Carbon tetrachloride	ND	0.76	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Chlorobenzene	ND	1.5	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Chloroethane	ND	5.0	100	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Chloroform	ND	1.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
<b>Chloromethane</b>	<b>4.2</b>	<b>3.2</b>	<b>40</b>	<b>ug/L</b>	<b>20</b>	<b>10/10/2017</b>	<b>10/10/2017 19:47</b>	<b>EPA 8260B</b>	<b>HC, J, D</b>



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TRC Environmental Corporation, Inc.  
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Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**MW-5D2**  
**A174009-26 (Water)**

**Date Sampled**  
**10/04/2017 14:38**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
<b>cis-1,2-Dichloroethene</b>	<b>4.8</b>	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	J, D
cis-1,3-Dichloropropene	ND	1.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Dibromochloromethane	ND	1.8	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Dibromomethane	ND	2.8	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Dichlorodifluoromethane	ND	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Diisopropyl Ether	ND	3.0	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Ethylbenzene	ND	1.1	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Hexachlorobutadiene	ND	2.6	40	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Isopropylbenzene	ND	1.6	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
<b>m,p-Xylene</b>	<b>1.2</b>	1.1	20	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	B, J, D
Methyl t-Butyl Ether	ND	2.8	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Methylene chloride	ND	2.8	40	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Naphthalene	ND	1.8	100	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
n-Butyl Benzene	ND	2.8	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
n-Hexane	ND	4.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
n-Propyl Benzene	ND	2.0	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
o-Xylene	ND	1.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
p-Isopropyltoluene	ND	1.7	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
sec-Butyl Benzene	ND	2.6	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
<b>Styrene</b>	<b>1.4</b>	1.3	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	B, J, D
tert-Butylbenzene	ND	2.4	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
<b>Tetrachloroethene</b>	<b>940</b>	1.6	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	D
Tetrahydrofuran	ND	24	200	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
<b>Toluene</b>	<b>1.2</b>	1.1	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	B, J, D
trans-1,2-Dichloroethene	ND	2.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
trans-1,3-Dichloropropene	ND	1.9	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
<b>Trichloroethene</b>	<b>12</b>	1.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	D
Trichlorofluoromethane	ND	2.6	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Vinyl chloride	ND	3.2	10	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
Xylenes, total	ND	2.3	30	ug/L	20	10/10/2017	10/10/2017 19:47	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			107 %	68.9-141		10/10/2017	10/10/2017 19:47	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			97.4 %	73.3-114		10/10/2017	10/10/2017 19:47	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			91.4 %	72.2-114		10/10/2017	10/10/2017 19:47	EPA 8260B	





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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-9D2**  
**A174009-27 (Water)**

**Date Sampled**  
**10/04/2017 16:28**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
<b>Acetone</b>	<b>6.4</b>	3.4	20	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	B, J
<b>Benzene</b>	<b>0.090</b>	0.089	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	J
Bromobenzene	ND	0.084	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
<b>Chloromethane</b>	<b>1.4</b>	0.16	2.0	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	HC, J





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Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**MW-9D2**  
**A174009-27 (Water)**

**Date Sampled**  
**10/04/2017 16:28**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
<b>cis-1,2-Dichloroethene</b>	<b>32</b>	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
<b>Dichlorodifluoromethane</b>	<b>0.63</b>	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
<b>Methyl t-Butyl Ether</b>	<b>38</b>	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
<b>Styrene</b>	<b>0.080</b>	0.065	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	B, J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
<b>Tetrachloroethene</b>	<b>49</b>	0.16	1.0	ug/L	2	10/10/2017	10/11/2017 02:50	EPA 8260B	D
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>0.65</b>	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
<b>Trichloroethene</b>	<b>14</b>	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
<b>Vinyl chloride</b>	<b>0.59</b>	0.16	0.50	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	HC
Xylenes, total	ND	0.12	1.5	ug/L	1	10/10/2017	10/10/2017 14:08	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			<i>101 %</i>	<i>68.9-141</i>		<i>10/10/2017</i>	<i>10/10/2017 14:08</i>	<i>EPA 8260B</i>	
<i>Surrogate: Toluene-d8</i>			<i>97.0 %</i>	<i>73.3-114</i>		<i>10/10/2017</i>	<i>10/10/2017 14:08</i>	<i>EPA 8260B</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>90.5 %</i>	<i>72.2-114</i>		<i>10/10/2017</i>	<i>10/10/2017 14:08</i>	<i>EPA 8260B</i>	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-1**  
**A174009-28 (Water)**

**Date Sampled**  
**10/04/2017 16:35**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
<b>Acetone</b>	<b>7.5</b>	3.4	20	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	B, J
Benzene	ND	0.089	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
<b>Chloromethane</b>	<b>2.2</b>	0.16	2.0	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	HC



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TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**MW-1**  
**A174009-28 (Water)**

**Date Sampled**  
**10/04/2017 16:35**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

cis-1,2-Dichloroethene	2.8	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
<b>Styrene</b>	<b>0.070</b>	0.065	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	B, J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
<b>Tetrachloroethene</b>	<b>4.0</b>	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>0.16</b>	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	J
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
<b>Trichloroethene</b>	<b>2.0</b>	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/10/2017	10/10/2017 14:37	EPA 8260B	
Surrogate: Dibromofluoromethane			98.4 %	68.9-141		10/10/2017	10/10/2017 14:37	EPA 8260B	
Surrogate: Toluene-d8			95.1 %	73.3-114		10/10/2017	10/10/2017 14:37	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			91.2 %	72.2-114		10/10/2017	10/10/2017 14:37	EPA 8260B	



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-9D**  
**A174009-29 (Water)**

**Date Sampled**  
**10/04/2017 17:16**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
<b>Acetone</b>	<b>17</b>	3.4	20	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	B, J
Benzene	ND	0.089	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
<b>Carbon tetrachloride</b>	<b>0.090</b>	0.038	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	J
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
<b>Chloromethane</b>	<b>4.7</b>	0.16	2.0	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	HC



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-9D**  
**A174009-29 (Water)**

**Date Sampled**  
**10/04/2017 17:16**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710028**

cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
<b>Styrene</b>	<b>0.080</b>	0.065	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	B, J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Tetrachloroethene	ND	0.081	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Trichloroethene	ND	0.062	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/10/2017	10/10/2017 15:05	EPA 8260B	
Surrogate: Dibromofluoromethane			98.2 %	68.9-141		10/10/2017	10/10/2017 15:05	EPA 8260B	
Surrogate: Toluene-d8			96.7 %	73.3-114		10/10/2017	10/10/2017 15:05	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			88.7 %	72.2-114		10/10/2017	10/10/2017 15:05	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-2D**  
**A174009-30 (Water)**

**Date Sampled**  
**10/04/2017 17:50**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Benzene	ND	0.089	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	X
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
<b>Chloromethane</b>	<b>1.4</b>	<b>0.16</b>	<b>2.0</b>	<b>ug/L</b>	<b>1</b>	<b>10/11/2017</b>	<b>10/11/2017 15:34</b>	<b>EPA 8260B</b>	<b>J</b>



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-2D**  
**A174009-30 (Water)**

**Date Sampled**  
**10/04/2017 17:50**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch: A710045**

cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
<b>Tetrachloroethene</b>	<b>38</b>	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	M, X
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
<b>Trichloroethene</b>	<b>0.090</b>	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	J
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/11/2017	10/11/2017 15:34	EPA 8260B	
Surrogate: Dibromofluoromethane			95.0 %	68.9-141		10/11/2017	10/11/2017 15:34	EPA 8260B	
Surrogate: Toluene-d8			93.2 %	73.3-114		10/11/2017	10/11/2017 15:34	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			85.5 %	72.2-114		10/11/2017	10/11/2017 15:34	EPA 8260B	





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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710028 - EPA 5030B**

**Blank (A710028-BLK1)**

Prepared: 10/09/2017 Analyzed: 10/09/2017 17:30

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,1-Trichloroethane	ND	0.50	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,2-Trichloroethane	ND	0.50	ug/L							
1,1,2-Trichlorotrifluoroethane	ND	0.50	ug/L							
1,1-Dichloroethane	ND	0.50	ug/L							
1,1-Dichloroethene	ND	0.50	ug/L							
1,1-Dichloropropene	ND	0.50	ug/L							
1,2,3-Trichlorobenzene	0.050	2.0	ug/L							J
1,2,3-Trichloropropane	ND	1.0	ug/L							
1,2,4-Trichlorobenzene	ND	2.0	ug/L							
1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L							
1,2-Dibromoethane (EDB)	ND	0.50	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	0.50	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	ug/L							
1,3-Dichlorobenzene	ND	0.50	ug/L							
1,3-Dichloropropane	ND	0.50	ug/L							
1,4-Dichlorobenzene	ND	0.50	ug/L							
2,2-Dichloropropane	ND	0.50	ug/L							
2-Butanone	ND	20	ug/L							
2-Chlorotoluene	ND	0.50	ug/L							
2-Hexanone	ND	20	ug/L							
4-Chlorotoluene	ND	0.50	ug/L							
4-Methyl-2-pentanone	ND	20	ug/L							
Acetone	4.0	20	ug/L							J
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	ug/L							
Bromochloromethane	ND	0.50	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	0.50	ug/L							
Bromomethane	ND	5.0	ug/L							
Carbon disulfide	ND	0.50	ug/L							
Carbon tetrachloride	ND	0.50	ug/L							
Chlorobenzene	ND	0.50	ug/L							
Chloroethane	ND	5.0	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	2.0	ug/L							
cis-1,2-Dichloroethene	ND	0.50	ug/L							
cis-1,3-Dichloropropene	ND	0.50	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	0.50	ug/L							





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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710028 - EPA 5030B**

**Blank (A710028-BLK1)**

Prepared: 10/09/2017 Analyzed: 10/09/2017 17:30

Dichlorodifluoromethane	ND	0.50	ug/L							
Diisopropyl Ether	ND	0.50	ug/L							
Ethylbenzene	ND	0.50	ug/L							
Hexachlorobutadiene	ND	2.0	ug/L							
Isopropylbenzene	ND	0.50	ug/L							
m,p-Xylene	0.070	1.0	ug/L							J
Methyl t-Butyl Ether	ND	0.50	ug/L							
Methylene chloride	ND	2.0	ug/L							
Naphthalene	ND	5.0	ug/L							
n-Butyl Benzene	ND	0.50	ug/L							
n-Hexane	ND	0.50	ug/L							
n-Propyl Benzene	ND	0.50	ug/L							
o-Xylene	ND	0.50	ug/L							
p-Isopropyltoluene	ND	0.50	ug/L							
sec-Butyl Benzene	ND	0.50	ug/L							
Styrene	0.10	0.50	ug/L							J
tert-Butylbenzene	ND	0.50	ug/L							
Tetrachloroethene	ND	0.50	ug/L							
Tetrahydrofuran	ND	10	ug/L							
Toluene	0.060	0.50	ug/L							J
trans-1,2-Dichloroethene	ND	0.50	ug/L							
trans-1,3-Dichloropropene	ND	0.50	ug/L							
Trichloroethene	ND	0.50	ug/L							
Trichlorofluoromethane	ND	0.50	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, total	ND	1.5	ug/L							
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Surrogate: Dibromofluoromethane	9.55		ug/L	10.00		95.5	68.9-141			
Surrogate: Toluene-d8	9.45		ug/L	10.00		94.5	73.3-114			
Surrogate: 4-Bromofluorobenzene	8.86		ug/L	10.00		88.6	72.2-114			

**LCS (A710028-BS1)**

Prepared: 10/09/2017 Analyzed: 10/09/2017 15:38

1,1,1,2-Tetrachloroethane	4.73	0.50	ug/L	5.000		94.6	75.8-136			
1,1,1-Trichloroethane	4.86	0.50	ug/L	5.000		97.2	66.1-164			
1,1,2,2-Tetrachloroethane	5.36	0.50	ug/L	5.000		107	61.8-138			
1,1,2-Trichloroethane	4.84	0.50	ug/L	5.000		96.8	76.7-127			
1,1,2-Trichlorotrifluoroethane	5.26	0.50	ug/L	5.000		105	55.6-199			
1,1-Dichloroethane	5.13	0.50	ug/L	5.000		103	69.1-153			
1,1-Dichloroethene	5.08	0.50	ug/L	5.000		102	51.2-180			
1,1-Dichloropropene	4.86	0.50	ug/L	5.000		97.2	77.3-125			
1,2,3-Trichlorobenzene	5.33	2.0	ug/L	5.000		107	74-122			B
1,2,3-Trichloropropane	5.39	1.0	ug/L	5.000		108	69.8-140			
1,2,4-Trichlorobenzene	5.46	2.0	ug/L	5.000		109	73.3-120			
1,2,4-Trimethylbenzene	5.43	0.50	ug/L	5.000		109	86.6-121			
1,2-Dibromo-3-chloropropane	5.25	0.50	ug/L	5.000		105	42.9-137			
1,2-Dibromoethane (EDB)	4.96	0.50	ug/L	5.000		99.2	75.2-124			



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710028 - EPA 5030B**

**LCS (A710028-BS1)**

Prepared: 10/09/2017 Analyzed: 10/09/2017 15:38

1,2-Dichlorobenzene	5.32	0.50	ug/L	5.000		106	88.3-115			
1,2-Dichloroethane	4.96	0.50	ug/L	5.000		99.2	69.2-160			
1,2-Dichloropropane	4.84	0.50	ug/L	5.000		96.8	73.1-128			
1,3,5-Trimethylbenzene	5.54	0.50	ug/L	5.000		111	87.3-122			
1,3-Dichlorobenzene	5.42	0.50	ug/L	5.000		108	90.7-114			
1,3-Dichloropropane	4.87	0.50	ug/L	5.000		97.4	76.8-125			
1,4-Dichlorobenzene	5.32	0.50	ug/L	5.000		106	88.9-112			
2,2-Dichloropropane	5.03	0.50	ug/L	5.000		101	70.2-147			
2-Butanone	46.0	20	ug/L	50.00		91.9	39.5-160			
2-Chlorotoluene	5.63	0.50	ug/L	5.000		113	87.3-118			
2-Hexanone	48.1	20	ug/L	50.00		96.3	30.4-168			
4-Chlorotoluene	5.61	0.50	ug/L	5.000		112	87.6-120			
4-Methyl-2-pentanone	48.4	20	ug/L	50.00		96.8	38.8-166			
Acetone	47.8	20	ug/L	50.00		95.6	30.1-197			B
Benzene	4.93	0.50	ug/L	5.000		98.6	68.2-135			
Bromobenzene	5.38	0.50	ug/L	5.000		108	84.4-112			
Bromochloromethane	4.80	0.50	ug/L	5.000		96.0	76.7-138			
Bromodichloromethane	4.85	0.50	ug/L	5.000		97.0	77.2-140			
Bromoform	4.79	0.50	ug/L	5.000		95.8	60-142			
Bromomethane	5.18	5.0	ug/L	5.000		104	52.3-196			
Carbon disulfide	5.33	0.50	ug/L	5.000		107	20.2-197			
Carbon tetrachloride	4.81	0.50	ug/L	5.000		96.2	61.2-157			
Chlorobenzene	4.79	0.50	ug/L	5.000		95.8	88.7-113			
Chloroethane	5.21	5.0	ug/L	5.000		104	43.1-196			
Chloroform	4.96	0.50	ug/L	5.000		99.2	68.7-161			
Chloromethane	5.48	2.0	ug/L	5.000		110	37.7-187			
cis-1,2-Dichloroethene	4.65	0.50	ug/L	5.000		93.0	76.1-127			
cis-1,3-Dichloropropene	4.71	0.50	ug/L	5.000		94.2	65.5-122			
Dibromochloromethane	4.68	0.50	ug/L	5.000		93.6	74.8-135			
Dibromomethane	4.91	0.50	ug/L	5.000		98.2	75-140			
Dichlorodifluoromethane	5.16	0.50	ug/L	5.000		103	68.8-164			
Diisopropyl Ether	4.89	0.50	ug/L	5.000		97.8	62.1-134			
Ethylbenzene	4.93	0.50	ug/L	5.000		98.6	86-119			
Hexachlorobutadiene	5.59	2.0	ug/L	5.000		112	54.7-158			
Isopropylbenzene	4.91	0.50	ug/L	5.000		98.2	86.3-118			
m,p-Xylene	9.69	1.0	ug/L	10.00		96.9	87.1-118			B
Methyl t-Butyl Ether	4.91	0.50	ug/L	5.000		98.2	58.1-138			
Methylene chloride	5.21	2.0	ug/L	5.000		104	63.5-153			
Naphthalene	5.17	5.0	ug/L	5.000		103	39.3-132			
n-Butyl Benzene	5.59	0.50	ug/L	5.000		112	84.7-121			
n-Hexane	4.78	0.50	ug/L	5.000		95.6	49.5-147			
n-Propyl Benzene	5.70	0.50	ug/L	5.000		114	84.2-124			
o-Xylene	4.85	0.50	ug/L	5.000		97.0	82.8-114			
p-Isopropyltoluene	5.65	0.50	ug/L	5.000		113	88.1-116			
sec-Butyl Benzene	5.44	0.50	ug/L	5.000		109	85.3-121			



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710028 - EPA 5030B**

<b>LCS (A710028-BS1)</b>		Prepared: 10/09/2017 Analyzed: 10/09/2017 15:38								
Styrene	4.74	0.50	ug/L	5.000		94.8	84.7-120			B
tert-Butylbenzene	5.34	0.50	ug/L	5.000		107	76.2-123			
Tetrachloroethene	4.81	0.50	ug/L	5.000		96.2	79.3-122			
Tetrahydrofuran	22.0	10	ug/L	25.00		88.0	27.8-152			
Toluene	4.77	0.50	ug/L	5.000		95.4	82.7-117			B
trans-1,2-Dichloroethene	4.88	0.50	ug/L	5.000		97.6	72.3-135			
trans-1,3-Dichloropropene	4.89	0.50	ug/L	5.000		97.8	72.5-122			
Trichloroethene	4.84	0.50	ug/L	5.000		96.8	77-126			
Trichlorofluoromethane	5.07	0.50	ug/L	5.000		101	56-195			
Vinyl chloride	5.16	0.50	ug/L	5.000		103	52.3-186			
<i>Surrogate: Dibromofluoromethane</i>	<i>5.00</i>		<i>ug/L</i>	<i>5.000</i>		<i>100</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>4.87</i>		<i>ug/L</i>	<i>5.000</i>		<i>97.4</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>4.77</i>		<i>ug/L</i>	<i>5.000</i>		<i>95.4</i>	<i>72.2-114</i>			

<b>Matrix Spike (A710028-MS1)</b>		Source: A174009-03 Prepared: 10/09/2017 Analyzed: 10/10/2017 10:20								
1,1,1,2-Tetrachloroethane	4.66	0.50	ug/L	5.000	ND	93.2	77.8-137			
1,1,1-Trichloroethane	5.07	0.50	ug/L	5.000	ND	101	66.3-167			
1,1,2,2-Tetrachloroethane	4.61	0.50	ug/L	5.000	ND	92.2	61.3-138			
1,1,2-Trichloroethane	5.00	0.50	ug/L	5.000	ND	100	75.4-132			
1,1,2-Trichlorotrifluoroethane	5.41	0.50	ug/L	5.000	ND	108	57.7-198			
1,1-Dichloroethane	5.17	0.50	ug/L	5.000	ND	103	66.9-154			
1,1-Dichloroethene	5.28	0.50	ug/L	5.000	ND	106	50.1-187			
1,1-Dichloropropene	4.64	0.50	ug/L	5.000	ND	92.8	74.1-127			
1,2,3-Trichlorobenzene	4.86	2.0	ug/L	5.000	ND	97.2	75.4-122			B
1,2,3-Trichloropropane	4.81	1.0	ug/L	5.000	ND	96.2	68.4-141			
1,2,4-Trichlorobenzene	4.87	2.0	ug/L	5.000	ND	97.4	72.1-121			
1,2,4-Trimethylbenzene	4.90	0.50	ug/L	5.000	ND	98.0	86.5-121			
1,2-Dibromo-3-chloropropane	4.44	0.50	ug/L	5.000	ND	88.8	49.9-130			
1,2-Dibromoethane (EDB)	4.70	0.50	ug/L	5.000	ND	94.0	74.4-124			
1,2-Dichlorobenzene	4.75	0.50	ug/L	5.000	ND	95.0	88.5-114			
1,2-Dichloroethane	4.97	0.50	ug/L	5.000	ND	99.4	72.6-161			
1,2-Dichloropropane	4.91	0.50	ug/L	5.000	ND	98.2	84.7-119			
1,3,5-Trimethylbenzene	4.80	0.50	ug/L	5.000	ND	96.0	87.3-122			
1,3-Dichlorobenzene	4.79	0.50	ug/L	5.000	ND	95.8	90.1-115			
1,3-Dichloropropane	4.71	0.50	ug/L	5.000	ND	94.2	76.6-126			
1,4-Dichlorobenzene	4.73	0.50	ug/L	5.000	ND	94.6	87.6-113			
2,2-Dichloropropane	5.84	0.50	ug/L	5.000	ND	117	72.3-145			
2-Butanone	46.0	20	ug/L	50.00	ND	92.0	32.2-170			
2-Chlorotoluene	5.00	0.50	ug/L	5.000	ND	100	87.9-117			
2-Hexanone	48.7	20	ug/L	50.00	ND	97.4	30.2-168			
4-Chlorotoluene	4.96	0.50	ug/L	5.000	ND	99.2	87.5-120			
4-Methyl-2-pentanone	49.9	20	ug/L	50.00	ND	99.8	39.1-168			
Acetone	59.3	20	ug/L	50.00	8.35	102	31.2-199			B
Benzene	4.88	0.50	ug/L	5.000	ND	97.6	67.8-136			
Bromobenzene	4.47	0.50	ug/L	5.000	ND	89.4	84.5-111			



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710028 - EPA 5030B**

<b>Matrix Spike (A710028-MS1)</b>	<b>Source: A174009-03</b>			Prepared: 10/09/2017		Analyzed: 10/10/2017 10:20				
Bromochloromethane	4.50	0.50	ug/L	5.000	ND	90.0	80.9-134			
Bromodichloromethane	4.82	0.50	ug/L	5.000	ND	96.4	76.1-144			
Bromoform	4.37	0.50	ug/L	5.000	ND	87.4	60.2-142			
Bromomethane	5.19	5.0	ug/L	5.000	ND	104	50.3-198			
Carbon disulfide	5.61	0.50	ug/L	5.000	ND	112	35.6-196			
Carbon tetrachloride	4.74	0.50	ug/L	5.000	ND	94.8	69.7-152			
Chlorobenzene	4.75	0.50	ug/L	5.000	ND	95.0	89.3-113			
Chloroethane	5.21	5.0	ug/L	5.000	ND	104	50.2-198			
Chloroform	4.94	0.50	ug/L	5.000	ND	98.8	66.2-164			
Chloromethane	6.23	2.0	ug/L	5.000	1.33	98.0	46.5-179			
cis-1,2-Dichloroethene	4.70	0.50	ug/L	5.000	ND	94.0	67.5-137			
cis-1,3-Dichloropropene	4.78	0.50	ug/L	5.000	ND	95.6	63.3-123			
Dibromochloromethane	4.55	0.50	ug/L	5.000	ND	91.0	76-133			
Dibromomethane	4.85	0.50	ug/L	5.000	ND	97.0	78.2-139			
Dichlorodifluoromethane	4.84	0.50	ug/L	5.000	ND	96.8	70.6-150			
Diisopropyl Ether	4.93	0.50	ug/L	5.000	ND	98.6	57.3-137			
Ethylbenzene	4.89	0.50	ug/L	5.000	ND	97.8	87.3-118			
Hexachlorobutadiene	5.12	2.0	ug/L	5.000	ND	102	55.4-161			
Isopropylbenzene	4.73	0.50	ug/L	5.000	ND	94.6	89-115			
m,p-Xylene	9.70	1.0	ug/L	10.00	ND	97.0	88.4-117			B
Methyl t-Butyl Ether	4.88	0.50	ug/L	5.000	ND	97.6	54.4-145			
Methylene chloride	5.41	2.0	ug/L	5.000	ND	108	59.2-154			
Naphthalene	4.66	5.0	ug/L	5.000	ND	93.2	43.3-129			J
n-Butyl Benzene	5.09	0.50	ug/L	5.000	ND	102	85.9-119			
n-Hexane	4.88	0.50	ug/L	5.000	ND	97.6	44.3-150			
n-Propyl Benzene	4.91	0.50	ug/L	5.000	ND	98.2	83.7-124			
o-Xylene	4.84	0.50	ug/L	5.000	ND	96.8	83.9-112			
p-Isopropyltoluene	4.92	0.50	ug/L	5.000	ND	98.4	89.6-114			
sec-Butyl Benzene	4.87	0.50	ug/L	5.000	ND	97.4	85.5-120			
Styrene	4.69	0.50	ug/L	5.000	0.0700	92.4	79.7-123			B
tert-Butylbenzene	4.71	0.50	ug/L	5.000	ND	94.2	78.6-120			
Tetrachloroethene	5.08	0.50	ug/L	5.000	0.450	92.6	78.8-123			
Tetrahydrofuran	22.1	10	ug/L	25.00	ND	88.4	24.7-155			
Toluene	4.83	0.50	ug/L	5.000	ND	96.6	81-118			B
trans-1,2-Dichloroethene	5.04	0.50	ug/L	5.000	ND	101	65.3-141			
trans-1,3-Dichloropropene	4.90	0.50	ug/L	5.000	ND	98.0	73.7-120			
Trichloroethene	4.79	0.50	ug/L	5.000	ND	95.8	77.1-123			
Trichlorofluoromethane	5.64	0.50	ug/L	5.000	ND	113	44.8-199			
Vinyl chloride	5.34	0.50	ug/L	5.000	ND	107	49.8-180			
<i>Surrogate: Dibromofluoromethane</i>	<i>4.79</i>		<i>ug/L</i>	<i>5.000</i>		<i>95.8</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>5.03</i>		<i>ug/L</i>	<i>5.000</i>		<i>101</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>4.68</i>		<i>ug/L</i>	<i>5.000</i>		<i>93.6</i>	<i>72.2-114</i>			



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710028 - EPA 5030B**

Matrix Spike Dup (A710028-MSD1)	Source: A174009-03		Prepared: 10/09/2017		Analyzed: 10/10/2017 10:49					
1,1,1,2-Tetrachloroethane	4.60	0.50	ug/L	5.000	ND	92.0	77.8-137	1.30	20	
1,1,1-Trichloroethane	5.21	0.50	ug/L	5.000	ND	104	66.3-167	2.72	20	
1,1,2,2-Tetrachloroethane	4.64	0.50	ug/L	5.000	ND	92.8	61.3-138	0.649	20	
1,1,2-Trichloroethane	4.84	0.50	ug/L	5.000	ND	96.8	75.4-132	3.25	20	
1,1,2-Trichlorotrifluoroethane	5.43	0.50	ug/L	5.000	ND	109	57.7-198	0.369	20	
1,1-Dichloroethane	5.19	0.50	ug/L	5.000	ND	104	66.9-154	0.386	20	
1,1-Dichloroethene	5.50	0.50	ug/L	5.000	ND	110	50.1-187	4.08	20	
1,1-Dichloropropene	4.59	0.50	ug/L	5.000	ND	91.8	74.1-127	1.08	20	
1,2,3-Trichlorobenzene	4.90	2.0	ug/L	5.000	ND	98.0	75.4-122	0.820	20	B
1,2,3-Trichloropropane	4.58	1.0	ug/L	5.000	ND	91.6	68.4-141	4.90	20	
1,2,4-Trichlorobenzene	4.85	2.0	ug/L	5.000	ND	97.0	72.1-121	0.412	20	
1,2,4-Trimethylbenzene	4.82	0.50	ug/L	5.000	ND	96.4	86.5-121	1.65	20	
1,2-Dibromo-3-chloropropane	4.23	0.50	ug/L	5.000	ND	84.6	49.9-130	4.84	20	
1,2-Dibromoethane (EDB)	4.56	0.50	ug/L	5.000	ND	91.2	74.4-124	3.02	20	
1,2-Dichlorobenzene	4.82	0.50	ug/L	5.000	ND	96.4	88.5-114	1.46	20	
1,2-Dichloroethane	5.03	0.50	ug/L	5.000	ND	101	72.6-161	1.20	20	
1,2-Dichloropropane	4.84	0.50	ug/L	5.000	ND	96.8	84.7-119	1.44	20	
1,3,5-Trimethylbenzene	4.89	0.50	ug/L	5.000	ND	97.8	87.3-122	1.86	20	
1,3-Dichlorobenzene	4.80	0.50	ug/L	5.000	ND	96.0	90.1-115	0.209	20	
1,3-Dichloropropane	4.67	0.50	ug/L	5.000	ND	93.4	76.6-126	0.853	20	
1,4-Dichlorobenzene	4.76	0.50	ug/L	5.000	ND	95.2	87.6-113	0.632	20	
2,2-Dichloropropane	5.65	0.50	ug/L	5.000	ND	113	72.3-145	3.31	20	
2-Butanone	40.9	20	ug/L	50.00	ND	81.8	32.2-170	11.8	20	
2-Chlorotoluene	5.07	0.50	ug/L	5.000	ND	101	87.9-117	1.39	20	
2-Hexanone	43.5	20	ug/L	50.00	ND	87.0	30.2-168	11.4	20	
4-Chlorotoluene	4.97	0.50	ug/L	5.000	ND	99.4	87.5-120	0.201	20	
4-Methyl-2-pentanone	45.2	20	ug/L	50.00	ND	90.5	39.1-168	9.86	20	
Acetone	54.7	20	ug/L	50.00	8.35	92.7	31.2-199	9.44	20	B
Benzene	4.82	0.50	ug/L	5.000	ND	96.4	67.8-136	1.24	20	
Bromobenzene	4.63	0.50	ug/L	5.000	ND	92.6	84.5-111	3.52	20	
Bromochloromethane	4.68	0.50	ug/L	5.000	ND	93.6	80.9-134	3.92	20	
Bromodichloromethane	4.87	0.50	ug/L	5.000	ND	97.4	76.1-144	1.03	20	
Bromoform	4.31	0.50	ug/L	5.000	ND	86.2	60.2-142	1.38	20	
Bromomethane	5.36	5.0	ug/L	5.000	ND	107	50.3-198	3.22	20	
Carbon disulfide	5.57	0.50	ug/L	5.000	ND	111	35.6-196	0.716	20	
Carbon tetrachloride	4.85	0.50	ug/L	5.000	ND	97.0	69.7-152	2.29	20	
Chlorobenzene	4.69	0.50	ug/L	5.000	ND	93.8	89.3-113	1.27	20	
Chloroethane	5.58	5.0	ug/L	5.000	ND	112	50.2-198	6.86	20	
Chloroform	5.06	0.50	ug/L	5.000	ND	101	66.2-164	2.40	20	
Chloromethane	6.35	2.0	ug/L	5.000	1.33	100	46.5-179	2.42	20	
cis-1,2-Dichloroethene	4.71	0.50	ug/L	5.000	ND	94.2	67.5-137	0.213	20	
cis-1,3-Dichloropropene	4.65	0.50	ug/L	5.000	ND	93.0	63.3-123	2.76	20	
Dibromochloromethane	4.50	0.50	ug/L	5.000	ND	90.0	76-133	1.10	20	
Dibromomethane	4.81	0.50	ug/L	5.000	ND	96.2	78.2-139	0.828	20	
Dichlorodifluoromethane	5.23	0.50	ug/L	5.000	ND	105	70.6-150	7.75	20	



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 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710028 - EPA 5030B**

<b>Matrix Spike Dup (A710028-MSD1)</b>	<b>Source: A174009-03</b>		<b>Prepared: 10/09/2017 Analyzed: 10/10/2017 10:49</b>							
Diisopropyl Ether	4.58	0.50	ug/L	5.000	ND	91.6	57.3-137	7.36	20	
Ethylbenzene	4.98	0.50	ug/L	5.000	ND	99.6	87.3-118	1.82	20	
Hexachlorobutadiene	5.34	2.0	ug/L	5.000	ND	107	55.4-161	4.21	20	
Isopropylbenzene	4.76	0.50	ug/L	5.000	ND	95.2	89-115	0.632	20	
m,p-Xylene	9.72	1.0	ug/L	10.00	ND	97.2	88.4-117	0.206	20	B
Methyl t-Butyl Ether	4.79	0.50	ug/L	5.000	ND	95.8	54.4-145	1.86	20	
Methylene chloride	5.38	2.0	ug/L	5.000	ND	108	59.2-154	0.556	20	
Naphthalene	4.49	5.0	ug/L	5.000	ND	89.8	43.3-129	3.72	20	J
n-Butyl Benzene	5.13	0.50	ug/L	5.000	ND	103	85.9-119	0.783	20	
n-Hexane	4.92	0.50	ug/L	5.000	ND	98.4	44.3-150	0.816	20	
n-Propyl Benzene	4.96	0.50	ug/L	5.000	ND	99.2	83.7-124	1.01	20	
o-Xylene	4.71	0.50	ug/L	5.000	ND	94.2	83.9-112	2.72	20	
p-Isopropyltoluene	4.99	0.50	ug/L	5.000	ND	99.8	89.6-114	1.41	20	
sec-Butyl Benzene	4.73	0.50	ug/L	5.000	ND	94.6	85.5-120	2.92	20	
Styrene	4.64	0.50	ug/L	5.000	0.0700	91.4	79.7-123	1.09	20	B
tert-Butylbenzene	4.76	0.50	ug/L	5.000	ND	95.2	78.6-120	1.06	20	
Tetrachloroethene	5.02	0.50	ug/L	5.000	0.450	91.4	78.8-123	1.30	20	
Tetrahydrofuran	20.4	10	ug/L	25.00	ND	81.5	24.7-155	8.05	20	
Toluene	4.98	0.50	ug/L	5.000	ND	99.6	81-118	3.06	20	B
trans-1,2-Dichloroethene	5.06	0.50	ug/L	5.000	ND	101	65.3-141	0.396	20	
trans-1,3-Dichloropropene	4.81	0.50	ug/L	5.000	ND	96.2	73.7-120	1.85	20	
Trichloroethene	4.95	0.50	ug/L	5.000	ND	99.0	77.1-123	3.29	20	
Trichlorofluoromethane	5.61	0.50	ug/L	5.000	ND	112	44.8-199	0.533	20	
Vinyl chloride	5.71	0.50	ug/L	5.000	ND	114	49.8-180	6.70	20	
<i>Surrogate: Dibromofluoromethane</i>	<i>4.82</i>		<i>ug/L</i>	<i>5.000</i>		<i>96.4</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>5.06</i>		<i>ug/L</i>	<i>5.000</i>		<i>101</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>4.50</i>		<i>ug/L</i>	<i>5.000</i>		<i>90.0</i>	<i>72.2-114</i>			



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

**Blank (A710036-BLK1)**

Prepared: 10/11/2017 Analyzed: 10/12/2017 06:12

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,1-Trichloroethane	ND	0.50	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,2-Trichloroethane	ND	0.50	ug/L							
1,1,2-Trichlorotrifluoroethane	ND	0.50	ug/L							
1,1-Dichloroethane	ND	0.50	ug/L							
1,1-Dichloroethene	ND	0.50	ug/L							
1,1-Dichloropropene	ND	0.50	ug/L							
1,2,3-Trichlorobenzene	ND	2.0	ug/L							
1,2,3-Trichloropropane	ND	1.0	ug/L							
1,2,4-Trichlorobenzene	ND	2.0	ug/L							
1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L							
1,2-Dibromoethane (EDB)	ND	0.50	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	0.50	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	ug/L							
1,3-Dichlorobenzene	ND	0.50	ug/L							
1,3-Dichloropropane	ND	0.50	ug/L							
1,4-Dichlorobenzene	ND	0.50	ug/L							
2,2-Dichloropropane	ND	0.50	ug/L							
2-Butanone	ND	20	ug/L							
2-Chlorotoluene	ND	0.50	ug/L							
2-Hexanone	ND	20	ug/L							
4-Chlorotoluene	ND	0.50	ug/L							
4-Methyl-2-pentanone	ND	20	ug/L							
Acetone	ND	20	ug/L							
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	ug/L							
Bromochloromethane	ND	0.50	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	0.50	ug/L							
Bromomethane	ND	5.0	ug/L							
Carbon disulfide	ND	0.50	ug/L							
Carbon tetrachloride	ND	0.50	ug/L							
Chlorobenzene	ND	0.50	ug/L							
Chloroethane	ND	5.0	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	2.0	ug/L							
cis-1,2-Dichloroethene	ND	0.50	ug/L							
cis-1,3-Dichloropropene	ND	0.50	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	0.50	ug/L							
Dichlorodifluoromethane	ND	0.50	ug/L							



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

**Blank (A710036-BLK1)**

Prepared: 10/11/2017 Analyzed: 10/12/2017 06:12

Diisopropyl Ether	ND	0.50	ug/L							
Ethylbenzene	ND	0.50	ug/L							
Hexachlorobutadiene	ND	2.0	ug/L							
Isopropylbenzene	ND	0.50	ug/L							
m,p-Xylene	ND	1.0	ug/L							
Methyl t-Butyl Ether	ND	0.50	ug/L							
Methylene chloride	ND	2.0	ug/L							
Naphthalene	ND	5.0	ug/L							
n-Butyl Benzene	ND	0.50	ug/L							
n-Hexane	ND	0.50	ug/L							
n-Propyl Benzene	ND	0.50	ug/L							
o-Xylene	ND	0.50	ug/L							
p-Isopropyltoluene	ND	0.50	ug/L							
sec-Butyl Benzene	ND	0.50	ug/L							
Styrene	0.080	0.50	ug/L							J
tert-Butylbenzene	ND	0.50	ug/L							
Tetrachloroethene	ND	0.50	ug/L							
Tetrahydrofuran	ND	10	ug/L							
Toluene	ND	0.50	ug/L							
trans-1,2-Dichloroethene	ND	0.50	ug/L							
trans-1,3-Dichloropropene	ND	0.50	ug/L							
Trichloroethene	ND	0.50	ug/L							
Trichlorofluoromethane	ND	0.50	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, total	ND	1.5	ug/L							
<i>Surrogate: Dibromofluoromethane</i>	<i>10.6</i>		<i>ug/L</i>	<i>10.00</i>		<i>106</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>9.83</i>		<i>ug/L</i>	<i>10.00</i>		<i>98.3</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>9.81</i>		<i>ug/L</i>	<i>10.00</i>		<i>98.1</i>	<i>72.2-114</i>			

**Blank (A710036-BLK2)**

Prepared: 10/12/2017 Analyzed: 10/12/2017 15:04

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,1-Trichloroethane	ND	0.50	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,2-Trichloroethane	ND	0.50	ug/L							
1,1,2-Trichlorotrifluoroethane	ND	0.50	ug/L							
1,1-Dichloroethane	ND	0.50	ug/L							
1,1-Dichloroethene	ND	0.50	ug/L							
1,1-Dichloropropene	ND	0.50	ug/L							
1,2,3-Trichlorobenzene	0.050	2.0	ug/L							J
1,2,3-Trichloropropane	ND	1.0	ug/L							
1,2,4-Trichlorobenzene	ND	2.0	ug/L							
1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L							
1,2-Dibromoethane (EDB)	ND	0.50	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							





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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

**Blank (A710036-BLK2)**

Prepared: 10/12/2017 Analyzed: 10/12/2017 15:04

1,2-Dichloroethane	ND	0.50	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	ug/L							
1,3-Dichlorobenzene	ND	0.50	ug/L							
1,3-Dichloropropane	ND	0.50	ug/L							
1,4-Dichlorobenzene	ND	0.50	ug/L							
2,2-Dichloropropane	ND	0.50	ug/L							
2-Butanone	ND	20	ug/L							
2-Chlorotoluene	ND	0.50	ug/L							
2-Hexanone	ND	20	ug/L							
4-Chlorotoluene	ND	0.50	ug/L							
4-Methyl-2-pentanone	ND	20	ug/L							
Acetone	ND	20	ug/L							
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	ug/L							
Bromochloromethane	ND	0.50	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	0.50	ug/L							
Bromomethane	ND	5.0	ug/L							
Carbon disulfide	ND	0.50	ug/L							
Carbon tetrachloride	ND	0.50	ug/L							
Chlorobenzene	ND	0.50	ug/L							
Chloroethane	ND	5.0	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	2.0	ug/L							
cis-1,2-Dichloroethene	ND	0.50	ug/L							
cis-1,3-Dichloropropene	ND	0.50	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	0.50	ug/L							
Dichlorodifluoromethane	ND	0.50	ug/L							
Diisopropyl Ether	ND	0.50	ug/L							
Ethylbenzene	ND	0.50	ug/L							
Hexachlorobutadiene	ND	2.0	ug/L							
Isopropylbenzene	ND	0.50	ug/L							
m,p-Xylene	ND	1.0	ug/L							
Methyl t-Butyl Ether	ND	0.50	ug/L							
Methylene chloride	0.14	2.0	ug/L							J
Naphthalene	0.30	5.0	ug/L							J
n-Butyl Benzene	ND	0.50	ug/L							
n-Hexane	ND	0.50	ug/L							
n-Propyl Benzene	ND	0.50	ug/L							
o-Xylene	ND	0.50	ug/L							
p-Isopropyltoluene	ND	0.50	ug/L							
sec-Butyl Benzene	ND	0.50	ug/L							
Styrene	0.090	0.50	ug/L							J



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**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

<b>Blank (A710036-BLK2)</b>		Prepared: 10/12/2017 Analyzed: 10/12/2017 15:04								
tert-Butylbenzene	ND	0.50	ug/L							
Tetrachloroethene	ND	0.50	ug/L							
Tetrahydrofuran	ND	10	ug/L							
Toluene	0.060	0.50	ug/L							J
trans-1,2-Dichloroethene	ND	0.50	ug/L							
trans-1,3-Dichloropropene	ND	0.50	ug/L							
Trichloroethene	ND	0.50	ug/L							
Trichlorofluoromethane	ND	0.50	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, total	ND	1.5	ug/L							
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Surrogate: Dibromofluoromethane	10.1		ug/L	10.00		101	68.9-141			
Surrogate: Toluene-d8	9.74		ug/L	10.00		97.4	73.3-114			
Surrogate: 4-Bromofluorobenzene	9.73		ug/L	10.00		97.3	72.2-114			

<b>LCS (A710036-BS1)</b>		Prepared: 10/11/2017 Analyzed: 10/12/2017 02:57								
1,1,1,2-Tetrachloroethane	5.15	0.50	ug/L	5.000		103	75.8-136			
1,1,1-Trichloroethane	5.60	0.50	ug/L	5.000		112	66.1-164			
1,1,2,2-Tetrachloroethane	5.18	0.50	ug/L	5.000		104	61.8-138			
1,1,2-Trichloroethane	5.22	0.50	ug/L	5.000		104	76.7-127			
1,1,2-Trichlorotrifluoroethane	5.81	0.50	ug/L	5.000		116	55.6-199			
1,1-Dichloroethane	5.73	0.50	ug/L	5.000		115	69.1-153			
1,1-Dichloroethene	5.67	0.50	ug/L	5.000		113	51.2-180			
1,1-Dichloropropene	5.70	0.50	ug/L	5.000		114	77.3-125			
1,2,3-Trichlorobenzene	4.66	2.0	ug/L	5.000		93.2	74-122			B
1,2,3-Trichloropropane	5.33	1.0	ug/L	5.000		107	69.8-140			
1,2,4-Trichlorobenzene	4.50	2.0	ug/L	5.000		90.0	73.3-120			
1,2,4-Trimethylbenzene	4.98	0.50	ug/L	5.000		99.6	86.6-121			
1,2-Dibromo-3-chloropropane	5.10	0.50	ug/L	5.000		102	42.9-137			
1,2-Dibromoethane (EDB)	5.14	0.50	ug/L	5.000		103	75.2-124			
1,2-Dichlorobenzene	4.95	0.50	ug/L	5.000		99.0	88.3-115			
1,2-Dichloroethane	5.86	0.50	ug/L	5.000		117	69.2-160			
1,2-Dichloropropane	5.11	0.50	ug/L	5.000		102	73.1-128			
1,3,5-Trimethylbenzene	5.07	0.50	ug/L	5.000		101	87.3-122			
1,3-Dichlorobenzene	4.87	0.50	ug/L	5.000		97.4	90.7-114			
1,3-Dichloropropane	5.22	0.50	ug/L	5.000		104	76.8-125			
1,4-Dichlorobenzene	4.77	0.50	ug/L	5.000		95.4	88.9-112			
2,2-Dichloropropane	4.59	0.50	ug/L	5.000		91.8	70.2-147			
2-Butanone	51.9	20	ug/L	50.00		104	39.5-160			
2-Chlorotoluene	5.02	0.50	ug/L	5.000		100	87.3-118			
2-Hexanone	50.9	20	ug/L	50.00		102	30.4-168			
4-Chlorotoluene	4.95	0.50	ug/L	5.000		99.0	87.6-120			
4-Methyl-2-pentanone	53.0	20	ug/L	50.00		106	38.8-166			
Acetone	57.6	20	ug/L	50.00		115	30.1-197			
Benzene	5.23	0.50	ug/L	5.000		105	68.2-135			
Bromobenzene	5.07	0.50	ug/L	5.000		101	84.4-112			



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Project Number: 266431  
Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

<b>LCS (A710036-BS1)</b>		Prepared: 10/11/2017 Analyzed: 10/12/2017 02:57								
Bromochloromethane	5.44	0.50	ug/L	5.000		109	76.7-138			
Bromodichloromethane	5.33	0.50	ug/L	5.000		107	77.2-140			
Bromoform	5.19	0.50	ug/L	5.000		104	60-142			
Bromomethane	5.80	5.0	ug/L	5.000		116	52.3-196			
Carbon disulfide	5.48	0.50	ug/L	5.000		110	20.2-197			
Carbon tetrachloride	5.43	0.50	ug/L	5.000		109	61.2-157			
Chlorobenzene	4.99	0.50	ug/L	5.000		99.8	88.7-113			
Chloroethane	5.79	5.0	ug/L	5.000		116	43.1-196			
Chloroform	5.28	0.50	ug/L	5.000		106	68.7-161			
Chloromethane	5.34	2.0	ug/L	5.000		107	37.7-187			
cis-1,2-Dichloroethene	5.09	0.50	ug/L	5.000		102	76.1-127			
cis-1,3-Dichloropropene	4.85	0.50	ug/L	5.000		97.0	65.5-122			
Dibromochloromethane	5.23	0.50	ug/L	5.000		105	74.8-135			
Dibromomethane	5.31	0.50	ug/L	5.000		106	75-140			
Dichlorodifluoromethane	5.64	0.50	ug/L	5.000		113	68.8-164			
Diisopropyl Ether	5.77	0.50	ug/L	5.000		115	62.1-134			
Ethylbenzene	5.09	0.50	ug/L	5.000		102	86-119			
Hexachlorobutadiene	5.00	2.0	ug/L	5.000		100	54.7-158			
Isopropylbenzene	5.14	0.50	ug/L	5.000		103	86.3-118			
m,p-Xylene	9.97	1.0	ug/L	10.00		99.7	87.1-118			
Methyl t-Butyl Ether	5.73	0.50	ug/L	5.000		115	58.1-138			
Methylene chloride	5.66	2.0	ug/L	5.000		113	63.5-153			B
Naphthalene	5.21	5.0	ug/L	5.000		104	39.3-132			B
n-Butyl Benzene	4.75	0.50	ug/L	5.000		95.0	84.7-121			
n-Hexane	6.07	0.50	ug/L	5.000		121	49.5-147			
n-Propyl Benzene	4.89	0.50	ug/L	5.000		97.8	84.2-124			
o-Xylene	5.12	0.50	ug/L	5.000		102	82.8-114			
p-Isopropyltoluene	5.03	0.50	ug/L	5.000		101	88.1-116			
sec-Butyl Benzene	5.06	0.50	ug/L	5.000		101	85.3-121			
Styrene	4.80	0.50	ug/L	5.000		96.0	84.7-120			B
tert-Butylbenzene	5.13	0.50	ug/L	5.000		103	76.2-123			
Tetrachloroethene	4.72	0.50	ug/L	5.000		94.4	79.3-122			
Tetrahydrofuran	27.0	10	ug/L	25.00		108	27.8-152			
Toluene	4.80	0.50	ug/L	5.000		96.0	82.7-117			B
trans-1,2-Dichloroethene	5.50	0.50	ug/L	5.000		110	72.3-135			
trans-1,3-Dichloropropene	4.82	0.50	ug/L	5.000		96.4	72.5-122			
Trichloroethene	5.15	0.50	ug/L	5.000		103	77-126			
Trichlorofluoromethane	5.87	0.50	ug/L	5.000		117	56-195			
Vinyl chloride	5.56	0.50	ug/L	5.000		111	52.3-186			
Surrogate: Dibromofluoromethane	5.41		ug/L	5.000		108	68.9-141			
Surrogate: Toluene-d8	5.08		ug/L	5.000		102	73.3-114			
Surrogate: 4-Bromofluorobenzene	5.05		ug/L	5.000		101	72.2-114			



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**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

**LCS (A710036-BS2)**

Prepared: 10/12/2017 Analyzed: 10/12/2017 14:37

1,1,1,2-Tetrachloroethane	5.27	0.50	ug/L	5.000		105	75.8-136			
1,1,1-Trichloroethane	5.34	0.50	ug/L	5.000		107	66.1-164			
1,1,2,2-Tetrachloroethane	4.64	0.50	ug/L	5.000		92.8	61.8-138			
1,1,2-Trichloroethane	5.11	0.50	ug/L	5.000		102	76.7-127			
1,1,2-Trichlorotrifluoroethane	5.58	0.50	ug/L	5.000		112	55.6-199			
1,1-Dichloroethane	5.47	0.50	ug/L	5.000		109	69.1-153			
1,1-Dichloroethene	5.31	0.50	ug/L	5.000		106	51.2-180			
1,1-Dichloropropene	5.40	0.50	ug/L	5.000		108	77.3-125			
1,2,3-Trichlorobenzene	4.70	2.0	ug/L	5.000		94.0	74-122			B
1,2,3-Trichloropropane	4.84	1.0	ug/L	5.000		96.8	69.8-140			
1,2,4-Trichlorobenzene	4.75	2.0	ug/L	5.000		95.0	73.3-120			
1,2,4-Trimethylbenzene	4.96	0.50	ug/L	5.000		99.2	86.6-121			
1,2-Dibromo-3-chloropropane	4.55	0.50	ug/L	5.000		91.0	42.9-137			
1,2-Dibromoethane (EDB)	5.10	0.50	ug/L	5.000		102	75.2-124			
1,2-Dichlorobenzene	4.84	0.50	ug/L	5.000		96.8	88.3-115			
1,2-Dichloroethane	5.56	0.50	ug/L	5.000		111	69.2-160			
1,2-Dichloropropane	5.01	0.50	ug/L	5.000		100	73.1-128			
1,3,5-Trimethylbenzene	4.91	0.50	ug/L	5.000		98.2	87.3-122			
1,3-Dichlorobenzene	4.72	0.50	ug/L	5.000		94.4	90.7-114			
1,3-Dichloropropane	5.16	0.50	ug/L	5.000		103	76.8-125			
1,4-Dichlorobenzene	4.72	0.50	ug/L	5.000		94.4	88.9-112			
2,2-Dichloropropane	5.19	0.50	ug/L	5.000		104	70.2-147			
2-Butanone	48.3	20	ug/L	50.00		96.6	39.5-160			
2-Chlorotoluene	4.89	0.50	ug/L	5.000		97.8	87.3-118			
2-Hexanone	48.7	20	ug/L	50.00		97.3	30.4-168			
4-Chlorotoluene	4.87	0.50	ug/L	5.000		97.4	87.6-120			
4-Methyl-2-pentanone	50.0	20	ug/L	50.00		99.9	38.8-166			
Acetone	59.7	20	ug/L	50.00		119	30.1-197			
Benzene	4.89	0.50	ug/L	5.000		97.8	68.2-135			
Bromobenzene	4.65	0.50	ug/L	5.000		93.0	84.4-112			
Bromochloromethane	5.07	0.50	ug/L	5.000		101	76.7-138			
Bromodichloromethane	5.21	0.50	ug/L	5.000		104	77.2-140			
Bromoform	5.05	0.50	ug/L	5.000		101	60-142			
Bromomethane	5.53	5.0	ug/L	5.000		111	52.3-196			
Carbon disulfide	5.31	0.50	ug/L	5.000		106	20.2-197			
Carbon tetrachloride	5.15	0.50	ug/L	5.000		103	61.2-157			
Chlorobenzene	5.01	0.50	ug/L	5.000		100	88.7-113			
Chloroethane	5.50	5.0	ug/L	5.000		110	43.1-196			
Chloroform	5.10	0.50	ug/L	5.000		102	68.7-161			
Chloromethane	4.99	2.0	ug/L	5.000		99.8	37.7-187			
cis-1,2-Dichloroethene	4.90	0.50	ug/L	5.000		98.0	76.1-127			
cis-1,3-Dichloropropene	5.04	0.50	ug/L	5.000		101	65.5-122			
Dibromochloromethane	5.19	0.50	ug/L	5.000		104	74.8-135			
Dibromomethane	5.21	0.50	ug/L	5.000		104	75-140			
Dichlorodifluoromethane	5.10	0.50	ug/L	5.000		102	68.8-164			



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

**LCS (A710036-BS2)**

Prepared: 10/12/2017 Analyzed: 10/12/2017 14:37

Diisopropyl Ether	5.42	0.50	ug/L	5.000		108	62.1-134			
Ethylbenzene	5.17	0.50	ug/L	5.000		103	86-119			
Hexachlorobutadiene	5.10	2.0	ug/L	5.000		102	54.7-158			
Isopropylbenzene	5.39	0.50	ug/L	5.000		108	86.3-118			
m,p-Xylene	10.2	1.0	ug/L	10.00		102	87.1-118			
Methyl t-Butyl Ether	5.44	0.50	ug/L	5.000		109	58.1-138			
Methylene chloride	5.60	2.0	ug/L	5.000		112	63.5-153			B
Naphthalene	4.86	5.0	ug/L	5.000		97.2	39.3-132			J, B
n-Butyl Benzene	4.88	0.50	ug/L	5.000		97.6	84.7-121			
n-Hexane	5.59	0.50	ug/L	5.000		112	49.5-147			
n-Propyl Benzene	4.74	0.50	ug/L	5.000		94.8	84.2-124			
o-Xylene	5.05	0.50	ug/L	5.000		101	82.8-114			
p-Isopropyltoluene	4.96	0.50	ug/L	5.000		99.2	88.1-116			
sec-Butyl Benzene	4.83	0.50	ug/L	5.000		96.6	85.3-121			
Styrene	4.89	0.50	ug/L	5.000		97.8	84.7-120			B
tert-Butylbenzene	4.90	0.50	ug/L	5.000		98.0	76.2-123			
Tetrachloroethene	4.82	0.50	ug/L	5.000		96.4	79.3-122			
Tetrahydrofuran	25.6	10	ug/L	25.00		102	27.8-152			
Toluene	4.81	0.50	ug/L	5.000		96.2	82.7-117			B
trans-1,2-Dichloroethene	5.30	0.50	ug/L	5.000		106	72.3-135			
trans-1,3-Dichloropropene	5.00	0.50	ug/L	5.000		100	72.5-122			
Trichloroethene	5.18	0.50	ug/L	5.000		104	77-126			
Trichlorofluoromethane	5.54	0.50	ug/L	5.000		111	56-195			
Vinyl chloride	5.16	0.50	ug/L	5.000		103	52.3-186			
<i>Surrogate: Dibromofluoromethane</i>	<i>5.09</i>		<i>ug/L</i>	<i>5.000</i>		<i>102</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>5.07</i>		<i>ug/L</i>	<i>5.000</i>		<i>101</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>5.13</i>		<i>ug/L</i>	<i>5.000</i>		<i>103</i>	<i>72.2-114</i>			

**Matrix Spike (A710036-MS1)**

Source: A174110-01

Prepared: 10/11/2017 Analyzed: 10/12/2017 02:00

1,1,1,2-Tetrachloroethane	5.15	0.50	ug/L	5.000	ND	103	77.8-137			
1,1,1-Trichloroethane	5.57	0.50	ug/L	5.000	ND	111	66.3-167			
1,1,2,2-Tetrachloroethane	5.17	0.50	ug/L	5.000	ND	103	61.3-138			
1,1,2-Trichloroethane	5.22	0.50	ug/L	5.000	ND	104	75.4-132			
1,1,2-Trichlorotrifluoroethane	5.73	0.50	ug/L	5.000	ND	115	57.7-198			
1,1-Dichloroethane	5.64	0.50	ug/L	5.000	ND	113	66.9-154			
1,1-Dichloroethene	5.48	0.50	ug/L	5.000	ND	110	50.1-187			
1,1-Dichloropropene	5.23	0.50	ug/L	5.000	ND	105	74.1-127			
1,2,3-Trichlorobenzene	4.72	2.0	ug/L	5.000	0.0700	93.0	75.4-122			B
1,2,3-Trichloropropane	5.28	1.0	ug/L	5.000	ND	106	68.4-141			
1,2,4-Trichlorobenzene	4.58	2.0	ug/L	5.000	ND	91.6	72.1-121			
1,2,4-Trimethylbenzene	5.25	0.50	ug/L	5.000	0.370	97.6	86.5-121			
1,2-Dibromo-3-chloropropane	5.17	0.50	ug/L	5.000	ND	103	49.9-130			
1,2-Dibromoethane (EDB)	5.16	0.50	ug/L	5.000	ND	103	74.4-124			
1,2-Dichlorobenzene	5.01	0.50	ug/L	5.000	ND	100	88.5-114			
1,2-Dichloroethane	5.98	0.50	ug/L	5.000	ND	120	72.6-161			



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

Matrix Spike (A710036-MS1)	Source: A174110-01		Prepared: 10/11/2017 Analyzed: 10/12/2017 02:00							
1,2-Dichloropropane	5.09	0.50	ug/L	5.000	ND	102	84.7-119			
1,3,5-Trimethylbenzene	5.15	0.50	ug/L	5.000	0.170	99.6	87.3-122			
1,3-Dichlorobenzene	4.79	0.50	ug/L	5.000	ND	95.8	90.1-115			
1,3-Dichloropropane	5.18	0.50	ug/L	5.000	ND	104	76.6-126			
1,4-Dichlorobenzene	4.60	0.50	ug/L	5.000	ND	92.0	87.6-113			
2,2-Dichloropropane	4.24	0.50	ug/L	5.000	ND	84.8	72.3-145			
2-Butanone	54.6	20	ug/L	50.00	ND	109	32.2-170			
2-Chlorotoluene	5.04	0.50	ug/L	5.000	ND	101	87.9-117			
2-Hexanone	52.0	20	ug/L	50.00	ND	104	30.2-168			
4-Chlorotoluene	4.80	0.50	ug/L	5.000	ND	96.0	87.5-120			
4-Methyl-2-pentanone	53.2	20	ug/L	50.00	ND	106	39.1-168			
Acetone	67.2	20	ug/L	50.00	ND	134	31.2-199			
Benzene	5.79	0.50	ug/L	5.000	0.710	102	67.8-136			
Bromobenzene	4.95	0.50	ug/L	5.000	ND	99.0	84.5-111			
Bromochloromethane	5.29	0.50	ug/L	5.000	ND	106	80.9-134			
Bromodichloromethane	5.25	0.50	ug/L	5.000	ND	105	76.1-144			
Bromoform	5.14	0.50	ug/L	5.000	ND	103	60.2-142			
Bromomethane	5.66	5.0	ug/L	5.000	ND	113	50.3-198			
Carbon disulfide	5.35	0.50	ug/L	5.000	ND	107	35.6-196			
Carbon tetrachloride	5.27	0.50	ug/L	5.000	ND	105	69.7-152			
Chlorobenzene	4.93	0.50	ug/L	5.000	ND	98.6	89.3-113			
Chloroethane	5.53	5.0	ug/L	5.000	ND	111	50.2-198			
Chloroform	5.25	0.50	ug/L	5.000	ND	105	66.2-164			
Chloromethane	6.89	2.0	ug/L	5.000	2.23	93.2	46.5-179			
cis-1,2-Dichloroethene	5.08	0.50	ug/L	5.000	ND	102	67.5-137			
cis-1,3-Dichloropropene	4.87	0.50	ug/L	5.000	ND	97.4	63.3-123			
Dibromochloromethane	5.16	0.50	ug/L	5.000	ND	103	76-133			
Dibromomethane	5.26	0.50	ug/L	5.000	ND	105	78.2-139			
Dichlorodifluoromethane	5.26	0.50	ug/L	5.000	ND	105	70.6-150			
Diisopropyl Ether	5.59	0.50	ug/L	5.000	ND	112	57.3-137			
Ethylbenzene	5.83	0.50	ug/L	5.000	0.790	101	87.3-118			
Hexachlorobutadiene	5.04	2.0	ug/L	5.000	ND	101	55.4-161			
Isopropylbenzene	5.66	0.50	ug/L	5.000	0.530	103	89-115			
m,p-Xylene	10.2	1.0	ug/L	10.00	0.370	98.6	88.4-117			
Methyl t-Butyl Ether	5.67	0.50	ug/L	5.000	ND	113	54.4-145			
Methylene chloride	5.70	2.0	ug/L	5.000	ND	114	59.2-154			B
Naphthalene	5.40	5.0	ug/L	5.000	0.690	94.2	43.3-129			B
n-Butyl Benzene	4.95	0.50	ug/L	5.000	ND	99.0	85.9-119			
n-Hexane	5.41	0.50	ug/L	5.000	ND	108	44.3-150			
n-Propyl Benzene	5.03	0.50	ug/L	5.000	0.190	96.8	83.7-124			
o-Xylene	5.06	0.50	ug/L	5.000	0.110	99.0	83.9-112			
p-Isopropyltoluene	5.15	0.50	ug/L	5.000	0.160	99.8	89.6-114			
sec-Butyl Benzene	5.03	0.50	ug/L	5.000	0.130	98.0	85.5-120			
Styrene	4.65	0.50	ug/L	5.000	0.100	91.0	79.7-123			B
tert-Butylbenzene	4.99	0.50	ug/L	5.000	ND	99.8	78.6-120			



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

<b>Matrix Spike (A710036-MS1)</b>	<b>Source: A174110-01</b>			Prepared: 10/11/2017		Analyzed: 10/12/2017 02:00				
Tetrachloroethene	4.60	0.50	ug/L	5.000	ND	92.0	78.8-123			
Tetrahydrofuran	26.1	10	ug/L	25.00	ND	104	24.7-155			
Toluene	5.14	0.50	ug/L	5.000	0.320	96.4	81-118			B
trans-1,2-Dichloroethene	5.41	0.50	ug/L	5.000	ND	108	65.3-141			
trans-1,3-Dichloropropene	5.33	0.50	ug/L	5.000	ND	107	73.7-120			
Trichloroethene	5.21	0.50	ug/L	5.000	ND	104	77.1-123			
Trichlorofluoromethane	5.71	0.50	ug/L	5.000	ND	114	44.8-199			
Vinyl chloride	5.53	0.50	ug/L	5.000	ND	111	49.8-180			
<i>Surrogate: Dibromofluoromethane</i>	<i>5.34</i>		<i>ug/L</i>	<i>5.000</i>		<i>107</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>4.99</i>		<i>ug/L</i>	<i>5.000</i>		<i>99.8</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>5.12</i>		<i>ug/L</i>	<i>5.000</i>		<i>102</i>	<i>72.2-114</i>			

<b>Matrix Spike (A710036-MS2)</b>	<b>Source: A174009-05</b>			Prepared: 10/12/2017		Analyzed: 10/12/2017 16:29				
1,1,1,2-Tetrachloroethane	5.18	0.50	ug/L	5.000	ND	104	77.8-137			
1,1,1-Trichloroethane	5.46	0.50	ug/L	5.000	ND	109	66.3-167			
1,1,2,2-Tetrachloroethane	5.14	0.50	ug/L	5.000	ND	103	61.3-138			
1,1,2-Trichloroethane	6.35	0.50	ug/L	5.000	ND	127	75.4-132			
1,1,2-Trichlorotrifluoroethane	5.69	0.50	ug/L	5.000	ND	114	57.7-198			
1,1-Dichloroethane	5.67	0.50	ug/L	5.000	ND	113	66.9-154			
1,1-Dichloroethene	5.50	0.50	ug/L	5.000	ND	110	50.1-187			
1,1-Dichloropropene	5.43	0.50	ug/L	5.000	ND	109	74.1-127			
1,2,3-Trichlorobenzene	4.60	2.0	ug/L	5.000	ND	92.0	75.4-122			B
1,2,3-Trichloropropane	5.54	1.0	ug/L	5.000	ND	111	68.4-141			
1,2,4-Trichlorobenzene	4.67	2.0	ug/L	5.000	ND	93.4	72.1-121			
1,2,4-Trimethylbenzene	4.93	0.50	ug/L	5.000	ND	98.6	86.5-121			
1,2-Dibromo-3-chloropropane	4.94	0.50	ug/L	5.000	ND	98.8	49.9-130			
1,2-Dibromoethane (EDB)	5.37	0.50	ug/L	5.000	ND	107	74.4-124			
1,2-Dichlorobenzene	4.87	0.50	ug/L	5.000	ND	97.4	88.5-114			
1,2-Dichloroethane	5.90	0.50	ug/L	5.000	ND	118	72.6-161			
1,2-Dichloropropane	5.05	0.50	ug/L	5.000	ND	101	84.7-119			
1,3,5-Trimethylbenzene	4.97	0.50	ug/L	5.000	ND	99.4	87.3-122			
1,3-Dichlorobenzene	4.79	0.50	ug/L	5.000	ND	95.8	90.1-115			
1,3-Dichloropropane	5.25	0.50	ug/L	5.000	ND	105	76.6-126			
1,4-Dichlorobenzene	4.71	0.50	ug/L	5.000	ND	94.2	87.6-113			
2,2-Dichloropropane	5.13	0.50	ug/L	5.000	ND	103	72.3-145			
2-Butanone	54.3	20	ug/L	50.00	ND	109	32.2-170			
2-Chlorotoluene	4.99	0.50	ug/L	5.000	ND	99.8	87.9-117			
2-Hexanone	54.0	20	ug/L	50.00	ND	108	30.2-168			
4-Chlorotoluene	5.02	0.50	ug/L	5.000	ND	100	87.5-120			
4-Methyl-2-pentanone	55.9	20	ug/L	50.00	ND	112	39.1-168			
Acetone	64.2	20	ug/L	50.00	ND	128	31.2-199			
Benzene	4.97	0.50	ug/L	5.000	ND	99.4	67.8-136			
Bromobenzene	4.84	0.50	ug/L	5.000	ND	96.8	84.5-111			
Bromochloromethane	5.39	0.50	ug/L	5.000	ND	108	80.9-134			
Bromodichloromethane	5.32	0.50	ug/L	5.000	ND	106	76.1-144			



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

<b>Matrix Spike (A710036-MS2)</b>	<b>Source: A174009-05</b>		<b>Prepared: 10/12/2017 Analyzed: 10/12/2017 16:29</b>							
Bromoform	5.17	0.50	ug/L	5.000	ND	103	60.2-142			
Bromomethane	5.62	5.0	ug/L	5.000	ND	112	50.3-198			
Carbon disulfide	5.45	0.50	ug/L	5.000	ND	109	35.6-196			
Carbon tetrachloride	5.30	0.50	ug/L	5.000	ND	106	69.7-152			
Chlorobenzene	5.00	0.50	ug/L	5.000	ND	100	89.3-113			
Chloroethane	5.59	5.0	ug/L	5.000	ND	112	50.2-198			
Chloroform	5.22	0.50	ug/L	5.000	ND	104	66.2-164			
Chloromethane	5.30	2.0	ug/L	5.000	0.400	98.0	46.5-179			
cis-1,2-Dichloroethene	6.69	0.50	ug/L	5.000	1.75	98.8	67.5-137			
cis-1,3-Dichloropropene	4.99	0.50	ug/L	5.000	ND	99.8	63.3-123			
Dibromochloromethane	5.27	0.50	ug/L	5.000	ND	105	76-133			
Dibromomethane	5.35	0.50	ug/L	5.000	ND	107	78.2-139			
Dichlorodifluoromethane	5.13	0.50	ug/L	5.000	ND	103	70.6-150			
Diisopropyl Ether	5.68	0.50	ug/L	5.000	ND	114	57.3-137			
Ethylbenzene	5.08	0.50	ug/L	5.000	ND	102	87.3-118			
Hexachlorobutadiene	5.08	2.0	ug/L	5.000	ND	102	55.4-161			
Isopropylbenzene	5.19	0.50	ug/L	5.000	ND	104	89-115			
m,p-Xylene	10.0	1.0	ug/L	10.00	ND	100	88.4-117			
Methyl t-Butyl Ether	5.78	0.50	ug/L	5.000	ND	116	54.4-145			
Methylene chloride	5.61	2.0	ug/L	5.000	ND	112	59.2-154			B
Naphthalene	4.83	5.0	ug/L	5.000	ND	96.6	43.3-129			J, B
n-Butyl Benzene	4.87	0.50	ug/L	5.000	ND	97.4	85.9-119			
n-Hexane	5.81	0.50	ug/L	5.000	ND	116	44.3-150			
n-Propyl Benzene	4.80	0.50	ug/L	5.000	ND	96.0	83.7-124			
o-Xylene	4.94	0.50	ug/L	5.000	ND	98.8	83.9-112			
p-Isopropyltoluene	4.94	0.50	ug/L	5.000	ND	98.8	89.6-114			
sec-Butyl Benzene	4.86	0.50	ug/L	5.000	ND	97.2	85.5-120			
Styrene	4.71	0.50	ug/L	5.000	ND	94.2	79.7-123			B
tert-Butylbenzene	4.94	0.50	ug/L	5.000	ND	98.8	78.6-120			
Tetrachloroethene	34.2	0.50	ug/L	5.000	29.7	89.2	78.8-123			
Tetrahydrofuran	28.3	10	ug/L	25.00	ND	113	24.7-155			
Toluene	4.88	0.50	ug/L	5.000	ND	97.6	81-118			B
trans-1,2-Dichloroethene	5.59	0.50	ug/L	5.000	ND	112	65.3-141			
trans-1,3-Dichloropropene	5.23	0.50	ug/L	5.000	ND	105	73.7-120			
Trichloroethene	11.6	0.50	ug/L	5.000	6.33	105	77.1-123			
Trichlorofluoromethane	5.86	0.50	ug/L	5.000	ND	117	44.8-199			
Vinyl chloride	5.43	0.50	ug/L	5.000	ND	109	49.8-180			
<i>Surrogate: Dibromofluoromethane</i>	5.28		<i>ug/L</i>	<i>5.000</i>		<i>106</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	5.03		<i>ug/L</i>	<i>5.000</i>		<i>101</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	5.12		<i>ug/L</i>	<i>5.000</i>		<i>102</i>	<i>72.2-114</i>			





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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

**Matrix Spike Dup (A710036-MSD1)**

Source: A174110-01

Prepared: 10/11/2017 Analyzed: 10/12/2017 02:28

1,1,1,2-Tetrachloroethane	5.06	0.50	ug/L	5.000	ND	101	77.8-137	1.76	20	
1,1,1-Trichloroethane	5.45	0.50	ug/L	5.000	ND	109	66.3-167	2.18	20	
1,1,2,2-Tetrachloroethane	5.23	0.50	ug/L	5.000	ND	105	61.3-138	1.15	20	
1,1,2-Trichloroethane	5.23	0.50	ug/L	5.000	ND	105	75.4-132	0.191	20	
1,1,2-Trichlorotrifluoroethane	5.73	0.50	ug/L	5.000	ND	115	57.7-198	0.00	20	
1,1-Dichloroethane	5.64	0.50	ug/L	5.000	ND	113	66.9-154	0.00	20	
1,1-Dichloroethene	5.39	0.50	ug/L	5.000	ND	108	50.1-187	1.66	20	
1,1-Dichloropropene	5.16	0.50	ug/L	5.000	ND	103	74.1-127	1.35	20	
1,2,3-Trichlorobenzene	4.77	2.0	ug/L	5.000	0.0700	94.0	75.4-122	1.07	20	B
1,2,3-Trichloropropane	5.31	1.0	ug/L	5.000	ND	106	68.4-141	0.567	20	
1,2,4-Trichlorobenzene	4.63	2.0	ug/L	5.000	ND	92.6	72.1-121	1.09	20	
1,2,4-Trimethylbenzene	5.03	0.50	ug/L	5.000	0.370	93.2	86.5-121	4.61	20	
1,2-Dibromo-3-chloropropane	5.06	0.50	ug/L	5.000	ND	101	49.9-130	2.15	20	
1,2-Dibromoethane (EDB)	5.20	0.50	ug/L	5.000	ND	104	74.4-124	0.772	20	
1,2-Dichlorobenzene	4.97	0.50	ug/L	5.000	ND	99.4	88.5-114	0.802	20	
1,2-Dichloroethane	5.92	0.50	ug/L	5.000	ND	118	72.6-161	1.01	20	
1,2-Dichloropropane	5.12	0.50	ug/L	5.000	ND	102	84.7-119	0.588	20	
1,3,5-Trimethylbenzene	4.94	0.50	ug/L	5.000	0.170	95.4	87.3-122	4.31	20	
1,3-Dichlorobenzene	4.68	0.50	ug/L	5.000	ND	93.6	90.1-115	2.32	20	
1,3-Dichloropropane	5.20	0.50	ug/L	5.000	ND	104	76.6-126	0.385	20	
1,4-Dichlorobenzene	4.68	0.50	ug/L	5.000	ND	93.6	87.6-113	1.72	20	
2,2-Dichloropropane	4.23	0.50	ug/L	5.000	ND	84.6	72.3-145	0.236	20	
2-Butanone	51.4	20	ug/L	50.00	ND	103	32.2-170	6.08	20	
2-Chlorotoluene	4.94	0.50	ug/L	5.000	ND	98.8	87.9-117	2.00	20	
2-Hexanone	51.3	20	ug/L	50.00	ND	103	30.2-168	1.28	20	
4-Chlorotoluene	4.89	0.50	ug/L	5.000	ND	97.8	87.5-120	1.86	20	
4-Methyl-2-pentanone	53.3	20	ug/L	50.00	ND	107	39.1-168	0.207	20	
Acetone	68.5	20	ug/L	50.00	ND	137	31.2-199	1.99	20	
Benzene	5.70	0.50	ug/L	5.000	0.710	99.8	67.8-136	1.79	20	
Bromobenzene	4.98	0.50	ug/L	5.000	ND	99.6	84.5-111	0.604	20	
Bromochloromethane	5.33	0.50	ug/L	5.000	ND	107	80.9-134	0.753	20	
Bromodichloromethane	5.29	0.50	ug/L	5.000	ND	106	76.1-144	0.759	20	
Bromoform	5.20	0.50	ug/L	5.000	ND	104	60.2-142	1.16	20	
Bromomethane	5.71	5.0	ug/L	5.000	ND	114	50.3-198	0.880	20	
Carbon disulfide	5.34	0.50	ug/L	5.000	ND	107	35.6-196	0.187	20	
Carbon tetrachloride	5.34	0.50	ug/L	5.000	ND	107	69.7-152	1.32	20	
Chlorobenzene	4.91	0.50	ug/L	5.000	ND	98.2	89.3-113	0.407	20	
Chloroethane	5.78	5.0	ug/L	5.000	ND	116	50.2-198	4.42	20	
Chloroform	5.26	0.50	ug/L	5.000	ND	105	66.2-164	0.190	20	
Chloromethane	6.74	2.0	ug/L	5.000	2.23	90.2	46.5-179	3.27	20	
cis-1,2-Dichloroethene	5.06	0.50	ug/L	5.000	ND	101	67.5-137	0.394	20	
cis-1,3-Dichloropropene	4.80	0.50	ug/L	5.000	ND	96.0	63.3-123	1.45	20	
Dibromochloromethane	5.15	0.50	ug/L	5.000	ND	103	76-133	0.194	20	
Dibromomethane	5.35	0.50	ug/L	5.000	ND	107	78.2-139	1.70	20	
Dichlorodifluoromethane	5.56	0.50	ug/L	5.000	ND	111	70.6-150	5.55	20	



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TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

Matrix Spike Dup (A710036-MSD1)	Source: A174110-01	Prepared: 10/11/2017	Analyzed: 10/12/2017 02:28							
Diisopropyl Ether	5.56	0.50	ug/L	5.000	ND	111	57.3-137	0.538	20	
Ethylbenzene	5.77	0.50	ug/L	5.000	0.790	99.6	87.3-118	1.20	20	
Hexachlorobutadiene	5.08	2.0	ug/L	5.000	ND	102	55.4-161	0.791	20	
Isopropylbenzene	5.67	0.50	ug/L	5.000	0.530	103	89-115	0.195	20	
m,p-Xylene	10.2	1.0	ug/L	10.00	0.370	98.3	88.4-117	0.305	20	
Methyl t-Butyl Ether	5.68	0.50	ug/L	5.000	ND	114	54.4-145	0.176	20	
Methylene chloride	5.64	2.0	ug/L	5.000	ND	113	59.2-154	1.06	20	B
Naphthalene	5.51	5.0	ug/L	5.000	0.690	96.4	43.3-129	2.31	20	B
n-Butyl Benzene	4.89	0.50	ug/L	5.000	ND	97.8	85.9-119	1.22	20	
n-Hexane	5.49	0.50	ug/L	5.000	ND	110	44.3-150	1.47	20	
n-Propyl Benzene	5.06	0.50	ug/L	5.000	0.190	97.4	83.7-124	0.618	20	
o-Xylene	5.11	0.50	ug/L	5.000	0.110	100	83.9-112	1.01	20	
p-Isopropyltoluene	5.07	0.50	ug/L	5.000	0.160	98.2	89.6-114	1.62	20	
sec-Butyl Benzene	5.08	0.50	ug/L	5.000	0.130	99.0	85.5-120	1.02	20	
Styrene	4.32	0.50	ug/L	5.000	0.100	84.4	79.7-123	7.53	20	B
tert-Butylbenzene	5.11	0.50	ug/L	5.000	ND	102	78.6-120	2.38	20	
Tetrachloroethene	4.81	0.50	ug/L	5.000	ND	96.2	78.8-123	4.46	20	
Tetrahydrofuran	26.2	10	ug/L	25.00	ND	105	24.7-155	0.268	20	
Toluene	5.12	0.50	ug/L	5.000	0.320	96.0	81-118	0.416	20	B
trans-1,2-Dichloroethene	5.52	0.50	ug/L	5.000	ND	110	65.3-141	2.01	20	
trans-1,3-Dichloropropene	5.21	0.50	ug/L	5.000	ND	104	73.7-120	2.28	20	
Trichloroethene	5.14	0.50	ug/L	5.000	ND	103	77.1-123	1.35	20	
Trichlorofluoromethane	5.77	0.50	ug/L	5.000	ND	115	44.8-199	1.05	20	
Vinyl chloride	5.58	0.50	ug/L	5.000	ND	112	49.8-180	0.900	20	
Surrogate: Dibromofluoromethane	5.38		ug/L	5.000		108	68.9-141			
Surrogate: Toluene-d8	5.08		ug/L	5.000		102	73.3-114			
Surrogate: 4-Bromofluorobenzene	5.12		ug/L	5.000		102	72.2-114			

Matrix Spike Dup (A710036-MSD2)	Source: A174009-05	Prepared: 10/12/2017	Analyzed: 10/12/2017 16:57							
1,1,1,2-Tetrachloroethane	5.00	0.50	ug/L	5.000	ND	100	77.8-137	3.54	20	
1,1,1-Trichloroethane	5.30	0.50	ug/L	5.000	ND	106	66.3-167	2.97	20	
1,1,2,2-Tetrachloroethane	4.86	0.50	ug/L	5.000	ND	97.2	61.3-138	5.60	20	
1,1,2-Trichloroethane	6.23	0.50	ug/L	5.000	ND	125	75.4-132	1.91	20	
1,1,2-Trichlorotrifluoroethane	5.70	0.50	ug/L	5.000	ND	114	57.7-198	0.176	20	
1,1-Dichloroethane	5.50	0.50	ug/L	5.000	ND	110	66.9-154	3.04	20	
1,1-Dichloroethene	5.37	0.50	ug/L	5.000	ND	107	50.1-187	2.39	20	
1,1-Dichloropropene	5.51	0.50	ug/L	5.000	ND	110	74.1-127	1.46	20	
1,2,3-Trichlorobenzene	4.64	2.0	ug/L	5.000	ND	92.8	75.4-122	0.866	20	B
1,2,3-Trichloropropane	5.13	1.0	ug/L	5.000	ND	103	68.4-141	7.69	20	
1,2,4-Trichlorobenzene	4.53	2.0	ug/L	5.000	ND	90.6	72.1-121	3.04	20	
1,2,4-Trimethylbenzene	4.85	0.50	ug/L	5.000	ND	97.0	86.5-121	1.64	20	
1,2-Dibromo-3-chloropropane	4.71	0.50	ug/L	5.000	ND	94.2	49.9-130	4.77	20	
1,2-Dibromoethane (EDB)	5.32	0.50	ug/L	5.000	ND	106	74.4-124	0.935	20	
1,2-Dichlorobenzene	4.79	0.50	ug/L	5.000	ND	95.8	88.5-114	1.66	20	
1,2-Dichloroethane	5.63	0.50	ug/L	5.000	ND	113	72.6-161	4.68	20	



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

Matrix Spike Dup (A710036-MSD2)	Source: A174009-05		Prepared: 10/12/2017 Analyzed: 10/12/2017 16:57							
1,2-Dichloropropane	4.94	0.50	ug/L	5.000	ND	98.8	84.7-119	2.20	20	
1,3,5-Trimethylbenzene	4.91	0.50	ug/L	5.000	ND	98.2	87.3-122	1.21	20	
1,3-Dichlorobenzene	4.67	0.50	ug/L	5.000	ND	93.4	90.1-115	2.54	20	
1,3-Dichloropropane	5.15	0.50	ug/L	5.000	ND	103	76.6-126	1.92	20	
1,4-Dichlorobenzene	4.61	0.50	ug/L	5.000	ND	92.2	87.6-113	2.15	20	
2,2-Dichloropropane	5.15	0.50	ug/L	5.000	ND	103	72.3-145	0.389	20	
2-Butanone	52.1	20	ug/L	50.00	ND	104	32.2-170	4.14	20	
2-Chlorotoluene	4.86	0.50	ug/L	5.000	ND	97.2	87.9-117	2.64	20	
2-Hexanone	50.7	20	ug/L	50.00	ND	101	30.2-168	6.25	20	
4-Chlorotoluene	4.78	0.50	ug/L	5.000	ND	95.6	87.5-120	4.90	20	
4-Methyl-2-pentanone	52.7	20	ug/L	50.00	ND	105	39.1-168	5.78	20	
Acetone	57.7	20	ug/L	50.00	ND	115	31.2-199	10.7	20	
Benzene	4.93	0.50	ug/L	5.000	ND	98.6	67.8-136	0.808	20	
Bromobenzene	4.75	0.50	ug/L	5.000	ND	95.0	84.5-111	1.88	20	
Bromochloromethane	4.96	0.50	ug/L	5.000	ND	99.2	80.9-134	8.31	20	
Bromodichloromethane	5.12	0.50	ug/L	5.000	ND	102	76.1-144	3.83	20	
Bromoform	4.88	0.50	ug/L	5.000	ND	97.6	60.2-142	5.77	20	
Bromomethane	5.69	5.0	ug/L	5.000	ND	114	50.3-198	1.24	20	
Carbon disulfide	5.27	0.50	ug/L	5.000	ND	105	35.6-196	3.36	20	
Carbon tetrachloride	5.14	0.50	ug/L	5.000	ND	103	69.7-152	3.07	20	
Chlorobenzene	4.84	0.50	ug/L	5.000	ND	96.8	89.3-113	3.25	20	
Chloroethane	5.52	5.0	ug/L	5.000	ND	110	50.2-198	1.26	20	
Chloroform	5.03	0.50	ug/L	5.000	ND	101	66.2-164	3.71	20	
Chloromethane	5.46	2.0	ug/L	5.000	0.400	101	46.5-179	3.21	20	
cis-1,2-Dichloroethene	6.58	0.50	ug/L	5.000	1.75	96.6	67.5-137	2.25	20	
cis-1,3-Dichloropropene	4.79	0.50	ug/L	5.000	ND	95.8	63.3-123	4.09	20	
Dibromochloromethane	5.06	0.50	ug/L	5.000	ND	101	76-133	4.07	20	
Dibromomethane	5.13	0.50	ug/L	5.000	ND	103	78.2-139	4.20	20	
Dichlorodifluoromethane	5.10	0.50	ug/L	5.000	ND	102	70.6-150	0.587	20	
Diisopropyl Ether	5.50	0.50	ug/L	5.000	ND	110	57.3-137	3.22	20	
Ethylbenzene	4.94	0.50	ug/L	5.000	ND	98.8	87.3-118	2.79	20	
Hexachlorobutadiene	5.09	2.0	ug/L	5.000	ND	102	55.4-161	0.197	20	
Isopropylbenzene	5.04	0.50	ug/L	5.000	ND	101	89-115	2.93	20	
m,p-Xylene	9.89	1.0	ug/L	10.00	ND	98.9	88.4-117	1.11	20	
Methyl t-Butyl Ether	5.58	0.50	ug/L	5.000	ND	112	54.4-145	3.52	20	
Methylene chloride	5.37	2.0	ug/L	5.000	ND	107	59.2-154	4.37	20	B
Naphthalene	4.93	5.0	ug/L	5.000	ND	98.6	43.3-129	2.05	20	J, B
n-Butyl Benzene	4.82	0.50	ug/L	5.000	ND	96.4	85.9-119	1.03	20	
n-Hexane	5.66	0.50	ug/L	5.000	ND	113	44.3-150	2.62	20	
n-Propyl Benzene	4.73	0.50	ug/L	5.000	ND	94.6	83.7-124	1.47	20	
o-Xylene	4.77	0.50	ug/L	5.000	ND	95.4	83.9-112	3.50	20	
p-Isopropyltoluene	4.80	0.50	ug/L	5.000	ND	96.0	89.6-114	2.87	20	
sec-Butyl Benzene	4.85	0.50	ug/L	5.000	ND	97.0	85.5-120	0.206	20	
Styrene	4.53	0.50	ug/L	5.000	ND	90.6	79.7-123	3.90	20	B
tert-Butylbenzene	4.89	0.50	ug/L	5.000	ND	97.8	78.6-120	1.02	20	



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

Matrix Spike Dup (A710036-MSD2)	Source: A174009-05	Prepared: 10/12/2017	Analyzed: 10/12/2017 16:57							
Tetrachloroethene	32.8	0.50	ug/L	5.000	29.7	60.6	78.8-123	38.2	20	M, X
Tetrahydrofuran	26.8	10	ug/L	25.00	ND	107	24.7-155	5.44	20	
Toluene	4.69	0.50	ug/L	5.000	ND	93.8	81-118	3.97	20	B
trans-1,2-Dichloroethene	5.35	0.50	ug/L	5.000	ND	107	65.3-141	4.39	20	
trans-1,3-Dichloropropene	4.92	0.50	ug/L	5.000	ND	98.4	73.7-120	6.11	20	
Trichloroethene	11.1	0.50	ug/L	5.000	6.33	95.4	77.1-123	9.20	20	
Trichlorofluoromethane	5.63	0.50	ug/L	5.000	ND	113	44.8-199	4.00	20	
Vinyl chloride	5.35	0.50	ug/L	5.000	ND	107	49.8-180	1.48	20	
Surrogate: Dibromofluoromethane	5.16		ug/L	5.000		103	68.9-141			
Surrogate: Toluene-d8	4.89		ug/L	5.000		97.8	73.3-114			
Surrogate: 4-Bromofluorobenzene	4.94		ug/L	5.000		98.8	72.2-114			

**Batch A710045 - EPA 5030B**

Blank (A710045-BLK1)	Prepared: 10/11/2017	Analyzed: 10/11/2017 14:09								
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,1-Trichloroethane	ND	0.50	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,2-Trichloroethane	ND	0.50	ug/L							
1,1,2-Trichlorotrifluoroethane	ND	0.50	ug/L							
1,1-Dichloroethane	ND	0.50	ug/L							
1,1-Dichloroethene	ND	0.50	ug/L							
1,1-Dichloropropene	ND	0.50	ug/L							
1,2,3-Trichlorobenzene	0.060	2.0	ug/L	J						
1,2,3-Trichloropropane	ND	1.0	ug/L							
1,2,4-Trichlorobenzene	ND	2.0	ug/L							
1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L							
1,2-Dibromoethane (EDB)	ND	0.50	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	0.50	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	ug/L							
1,3-Dichlorobenzene	ND	0.50	ug/L							
1,3-Dichloropropane	ND	0.50	ug/L							
1,4-Dichlorobenzene	ND	0.50	ug/L							
2,2-Dichloropropane	ND	0.50	ug/L							
2-Butanone	ND	20	ug/L							
2-Chlorotoluene	ND	0.50	ug/L							
2-Hexanone	ND	20	ug/L							
4-Chlorotoluene	ND	0.50	ug/L							
4-Methyl-2-pentanone	ND	20	ug/L							
Acetone	ND	20	ug/L							
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	ug/L							



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710045 - EPA 5030B**

**Blank (A710045-BLK1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 14:09

Bromochloromethane	ND	0.50	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	0.50	ug/L							
Bromomethane	ND	5.0	ug/L							
Carbon disulfide	ND	0.50	ug/L							
Carbon tetrachloride	ND	0.50	ug/L							
Chlorobenzene	ND	0.50	ug/L							
Chloroethane	ND	5.0	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	2.0	ug/L							
cis-1,2-Dichloroethene	ND	0.50	ug/L							
cis-1,3-Dichloropropene	ND	0.50	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	0.50	ug/L							
Dichlorodifluoromethane	ND	0.50	ug/L							
Diisopropyl Ether	ND	0.50	ug/L							
Ethylbenzene	ND	0.50	ug/L							
Hexachlorobutadiene	ND	2.0	ug/L							
Isopropylbenzene	ND	0.50	ug/L							
m,p-Xylene	0.060	1.0	ug/L							J
Methyl t-Butyl Ether	ND	0.50	ug/L							
Methylene chloride	ND	2.0	ug/L							
Naphthalene	0.11	5.0	ug/L							J
n-Butyl Benzene	ND	0.50	ug/L							
n-Hexane	ND	0.50	ug/L							
n-Propyl Benzene	ND	0.50	ug/L							
o-Xylene	ND	0.50	ug/L							
p-Isopropyltoluene	ND	0.50	ug/L							
sec-Butyl Benzene	ND	0.50	ug/L							
Styrene	0.070	0.50	ug/L							J
tert-Butylbenzene	ND	0.50	ug/L							
Tetrachloroethene	ND	0.50	ug/L							
Tetrahydrofuran	ND	10	ug/L							
Toluene	ND	0.50	ug/L							
trans-1,2-Dichloroethene	ND	0.50	ug/L							
trans-1,3-Dichloropropene	ND	0.50	ug/L							
Trichloroethene	ND	0.50	ug/L							
Trichlorofluoromethane	ND	0.50	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, total	ND	1.5	ug/L							
Surrogate: Dibromofluoromethane	9.40		ug/L	10.00		94.0	68.9-141			
Surrogate: Toluene-d8	9.31		ug/L	10.00		93.1	73.3-114			
Surrogate: 4-Bromofluorobenzene	8.75		ug/L	10.00		87.5	72.2-114			



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710045 - EPA 5030B**

**LCS (A710045-BS1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 13:41

1,1,1,2-Tetrachloroethane	4.60	0.50	ug/L	5.000		92.0	75.8-136			
1,1,1-Trichloroethane	4.98	0.50	ug/L	5.000		99.6	66.1-164			
1,1,2,2-Tetrachloroethane	4.35	0.50	ug/L	5.000		87.0	61.8-138			
1,1,2-Trichloroethane	4.66	0.50	ug/L	5.000		93.2	76.7-127			
1,1,2-Trichlorotrifluoroethane	5.02	0.50	ug/L	5.000		100	55.6-199			
1,1-Dichloroethane	4.62	0.50	ug/L	5.000		92.4	69.1-153			
1,1-Dichloroethene	4.98	0.50	ug/L	5.000		99.6	51.2-180			
1,1-Dichloropropene	4.53	0.50	ug/L	5.000		90.6	77.3-125			
1,2,3-Trichlorobenzene	4.71	2.0	ug/L	5.000		94.2	74-122			B
1,2,3-Trichloropropane	4.39	1.0	ug/L	5.000		87.8	69.8-140			
1,2,4-Trichlorobenzene	4.63	2.0	ug/L	5.000		92.6	73.3-120			
1,2,4-Trimethylbenzene	4.56	0.50	ug/L	5.000		91.2	86.6-121			
1,2-Dibromo-3-chloropropane	4.55	0.50	ug/L	5.000		91.0	42.9-137			
1,2-Dibromoethane (EDB)	4.65	0.50	ug/L	5.000		93.0	75.2-124			
1,2-Dichlorobenzene	4.67	0.50	ug/L	5.000		93.4	88.3-115			
1,2-Dichloroethane	4.80	0.50	ug/L	5.000		96.0	69.2-160			
1,2-Dichloropropane	4.34	0.50	ug/L	5.000		86.8	73.1-128			
1,3,5-Trimethylbenzene	4.57	0.50	ug/L	5.000		91.4	87.3-122			
1,3-Dichlorobenzene	4.66	0.50	ug/L	5.000		93.2	90.7-114			
1,3-Dichloropropane	4.42	0.50	ug/L	5.000		88.4	76.8-125			
1,4-Dichlorobenzene	4.56	0.50	ug/L	5.000		91.2	88.9-112			
2,2-Dichloropropane	4.83	0.50	ug/L	5.000		96.6	70.2-147			
2-Butanone	41.2	20	ug/L	50.00		82.4	39.5-160			
2-Chlorotoluene	4.61	0.50	ug/L	5.000		92.2	87.3-118			
2-Hexanone	44.8	20	ug/L	50.00		89.7	30.4-168			
4-Chlorotoluene	4.51	0.50	ug/L	5.000		90.2	87.6-120			
4-Methyl-2-pentanone	44.8	20	ug/L	50.00		89.6	38.8-166			
Acetone	44.1	20	ug/L	50.00		88.1	30.1-197			
Benzene	4.39	0.50	ug/L	5.000		87.8	68.2-135			
Bromobenzene	4.50	0.50	ug/L	5.000		90.0	84.4-112			
Bromochloromethane	4.50	0.50	ug/L	5.000		90.0	76.7-138			
Bromodichloromethane	4.66	0.50	ug/L	5.000		93.2	77.2-140			
Bromoform	4.69	0.50	ug/L	5.000		93.8	60-142			
Bromomethane	4.90	5.0	ug/L	5.000		98.0	52.3-196			J
Carbon disulfide	4.56	0.50	ug/L	5.000		91.2	20.2-197			
Carbon tetrachloride	4.85	0.50	ug/L	5.000		97.0	61.2-157			
Chlorobenzene	4.60	0.50	ug/L	5.000		92.0	88.7-113			
Chloroethane	4.49	5.0	ug/L	5.000		89.8	43.1-196			J
Chloroform	4.63	0.50	ug/L	5.000		92.6	68.7-161			
Chloromethane	4.38	2.0	ug/L	5.000		87.6	37.7-187			
cis-1,2-Dichloroethene	4.46	0.50	ug/L	5.000		89.2	76.1-127			
cis-1,3-Dichloropropene	4.42	0.50	ug/L	5.000		88.4	65.5-122			
Dibromochloromethane	4.78	0.50	ug/L	5.000		95.6	74.8-135			
Dibromomethane	4.62	0.50	ug/L	5.000		92.4	75-140			
Dichlorodifluoromethane	4.67	0.50	ug/L	5.000		93.4	68.8-164			



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710045 - EPA 5030B**

<b>LCS (A710045-BS1)</b>		Prepared: 10/11/2017 Analyzed: 10/11/2017 13:41								
Diisopropyl Ether	4.54	0.50	ug/L	5.000		90.8	62.1-134			
Ethylbenzene	4.57	0.50	ug/L	5.000		91.4	86-119			
Hexachlorobutadiene	4.90	2.0	ug/L	5.000		98.0	54.7-158			
Isopropylbenzene	4.63	0.50	ug/L	5.000		92.6	86.3-118			
m,p-Xylene	9.14	1.0	ug/L	10.00		91.4	87.1-118			B
Methyl t-Butyl Ether	4.56	0.50	ug/L	5.000		91.2	58.1-138			
Methylene chloride	4.92	2.0	ug/L	5.000		98.4	63.5-153			
Naphthalene	4.40	5.0	ug/L	5.000		88.0	39.3-132			J, B
n-Butyl Benzene	4.68	0.50	ug/L	5.000		93.6	84.7-121			
n-Hexane	4.20	0.50	ug/L	5.000		84.0	49.5-147			
n-Propyl Benzene	4.51	0.50	ug/L	5.000		90.2	84.2-124			
o-Xylene	4.56	0.50	ug/L	5.000		91.2	82.8-114			
p-Isopropyltoluene	4.66	0.50	ug/L	5.000		93.2	88.1-116			
sec-Butyl Benzene	4.57	0.50	ug/L	5.000		91.4	85.3-121			
Styrene	4.58	0.50	ug/L	5.000		91.6	84.7-120			B
tert-Butylbenzene	4.55	0.50	ug/L	5.000		91.0	76.2-123			
Tetrachloroethene	4.74	0.50	ug/L	5.000		94.8	79.3-122			
Tetrahydrofuran	21.1	10	ug/L	25.00		84.2	27.8-152			
Toluene	4.43	0.50	ug/L	5.000		88.6	82.7-117			
trans-1,2-Dichloroethene	4.62	0.50	ug/L	5.000		92.4	72.3-135			
trans-1,3-Dichloropropene	4.55	0.50	ug/L	5.000		91.0	72.5-122			
Trichloroethene	4.47	0.50	ug/L	5.000		89.4	77-126			
Trichlorofluoromethane	5.05	0.50	ug/L	5.000		101	56-195			
Vinyl chloride	4.59	0.50	ug/L	5.000		91.8	52.3-186			
<i>Surrogate: Dibromofluoromethane</i>	<i>4.95</i>		<i>ug/L</i>	<i>5.000</i>		<i>99.0</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>4.71</i>		<i>ug/L</i>	<i>5.000</i>		<i>94.2</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>4.38</i>		<i>ug/L</i>	<i>5.000</i>		<i>87.6</i>	<i>72.2-114</i>			

<b>Matrix Spike (A710045-MS1)</b>		<b>Source: A174009-30</b>		Prepared: 10/11/2017 Analyzed: 10/11/2017 14:37						
1,1,1,2-Tetrachloroethane	4.87	0.50	ug/L	5.000	ND	97.4	77.8-137			
1,1,1-Trichloroethane	5.11	0.50	ug/L	5.000	ND	102	66.3-167			
1,1,2,2-Tetrachloroethane	4.77	0.50	ug/L	5.000	ND	95.4	61.3-138			
1,1,2-Trichloroethane	5.97	0.50	ug/L	5.000	ND	119	75.4-132			
1,1,2-Trichlorotrifluoroethane	5.37	0.50	ug/L	5.000	ND	107	57.7-198			
1,1-Dichloroethane	4.98	0.50	ug/L	5.000	ND	99.6	66.9-154			
1,1-Dichloroethene	5.15	0.50	ug/L	5.000	ND	103	50.1-187			
1,1-Dichloropropene	4.63	0.50	ug/L	5.000	ND	92.6	74.1-127			
1,2,3-Trichlorobenzene	5.11	2.0	ug/L	5.000	ND	102	75.4-122			B
1,2,3-Trichloropropane	4.81	1.0	ug/L	5.000	ND	96.2	68.4-141			
1,2,4-Trichlorobenzene	5.00	2.0	ug/L	5.000	ND	100	72.1-121			
1,2,4-Trimethylbenzene	4.60	0.50	ug/L	5.000	ND	92.0	86.5-121			
1,2-Dibromo-3-chloropropane	5.06	0.50	ug/L	5.000	ND	101	49.9-130			
1,2-Dibromoethane (EDB)	4.92	0.50	ug/L	5.000	ND	98.4	74.4-124			
1,2-Dichlorobenzene	4.69	0.50	ug/L	5.000	ND	93.8	88.5-114			
1,2-Dichloroethane	4.91	0.50	ug/L	5.000	ND	98.2	72.6-161			



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Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710045 - EPA 5030B**

Matrix Spike (A710045-MS1)	Source: A174009-30		Prepared: 10/11/2017 Analyzed: 10/11/2017 14:37							
1,2-Dichloropropane	4.67	0.50	ug/L	5.000	ND	93.4	84.7-119			
1,3,5-Trimethylbenzene	4.60	0.50	ug/L	5.000	ND	92.0	87.3-122			
1,3-Dichlorobenzene	4.69	0.50	ug/L	5.000	ND	93.8	90.1-115			
1,3-Dichloropropane	4.77	0.50	ug/L	5.000	ND	95.4	76.6-126			
1,4-Dichlorobenzene	4.72	0.50	ug/L	5.000	ND	94.4	87.6-113			
2,2-Dichloropropane	5.34	0.50	ug/L	5.000	ND	107	72.3-145			
2-Butanone	47.2	20	ug/L	50.00	ND	94.4	32.2-170			
2-Chlorotoluene	4.74	0.50	ug/L	5.000	ND	94.8	87.9-117			
2-Hexanone	50.7	20	ug/L	50.00	ND	101	30.2-168			
4-Chlorotoluene	4.70	0.50	ug/L	5.000	ND	94.0	87.5-120			
4-Methyl-2-pentanone	51.0	20	ug/L	50.00	ND	102	39.1-168			
Acetone	54.7	20	ug/L	50.00	ND	109	31.2-199			
Benzene	4.60	0.50	ug/L	5.000	ND	92.0	67.8-136			
Bromobenzene	4.61	0.50	ug/L	5.000	ND	92.2	84.5-111			
Bromochloromethane	4.76	0.50	ug/L	5.000	ND	95.2	80.9-134			
Bromodichloromethane	4.92	0.50	ug/L	5.000	ND	98.4	76.1-144			
Bromoform	5.12	0.50	ug/L	5.000	ND	102	60.2-142			
Bromomethane	4.84	5.0	ug/L	5.000	ND	96.8	50.3-198			J
Carbon disulfide	6.44	0.50	ug/L	5.000	ND	129	35.6-196			
Carbon tetrachloride	4.95	0.50	ug/L	5.000	ND	99.0	69.7-152			
Chlorobenzene	4.69	0.50	ug/L	5.000	ND	93.8	89.3-113			
Chloroethane	4.50	5.0	ug/L	5.000	ND	90.0	50.2-198			J
Chloroform	4.85	0.50	ug/L	5.000	ND	97.0	66.2-164			
Chloromethane	4.89	2.0	ug/L	5.000	1.38	70.2	46.5-179			
cis-1,2-Dichloroethene	4.52	0.50	ug/L	5.000	ND	90.4	67.5-137			
cis-1,3-Dichloropropene	4.60	0.50	ug/L	5.000	ND	92.0	63.3-123			
Dibromochloromethane	5.02	0.50	ug/L	5.000	ND	100	76-133			
Dibromomethane	5.04	0.50	ug/L	5.000	ND	101	78.2-139			
Dichlorodifluoromethane	5.10	0.50	ug/L	5.000	ND	102	70.6-150			
Diisopropyl Ether	4.93	0.50	ug/L	5.000	ND	98.6	57.3-137			
Ethylbenzene	4.71	0.50	ug/L	5.000	ND	94.2	87.3-118			
Hexachlorobutadiene	5.23	2.0	ug/L	5.000	ND	105	55.4-161			
Isopropylbenzene	4.71	0.50	ug/L	5.000	ND	94.2	89-115			
m,p-Xylene	9.40	1.0	ug/L	10.00	ND	94.0	88.4-117			B
Methyl t-Butyl Ether	4.94	0.50	ug/L	5.000	ND	98.8	54.4-145			
Methylene chloride	5.34	2.0	ug/L	5.000	ND	107	59.2-154			
Naphthalene	5.02	5.0	ug/L	5.000	ND	100	43.3-129			B
n-Butyl Benzene	4.86	0.50	ug/L	5.000	ND	97.2	85.9-119			
n-Hexane	4.56	0.50	ug/L	5.000	ND	91.2	44.3-150			
n-Propyl Benzene	4.66	0.50	ug/L	5.000	ND	93.2	83.7-124			
o-Xylene	4.69	0.50	ug/L	5.000	ND	93.8	83.9-112			
p-Isopropyltoluene	4.81	0.50	ug/L	5.000	ND	96.2	89.6-114			
sec-Butyl Benzene	4.63	0.50	ug/L	5.000	ND	92.6	85.5-120			
Styrene	4.63	0.50	ug/L	5.000	ND	92.6	79.7-123			B
tert-Butylbenzene	4.48	0.50	ug/L	5.000	ND	89.6	78.6-120			





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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710045 - EPA 5030B**

<b>Matrix Spike (A710045-MS1)</b>	<b>Source: A174009-30</b>			Prepared: 10/11/2017		Analyzed: 10/11/2017 14:37				
Tetrachloroethene	41.9	0.50	ug/L	5.000	37.8	83.6	78.8-123			
Tetrahydrofuran	23.5	10	ug/L	25.00	ND	94.0	24.7-155			
Toluene	4.69	0.50	ug/L	5.000	ND	93.8	81-118			
trans-1,2-Dichloroethene	4.92	0.50	ug/L	5.000	ND	98.4	65.3-141			
trans-1,3-Dichloropropene	4.87	0.50	ug/L	5.000	ND	97.4	73.7-120			
Trichloroethene	4.89	0.50	ug/L	5.000	0.0900	96.0	77.1-123			
Trichlorofluoromethane	4.89	0.50	ug/L	5.000	ND	97.8	44.8-199			
Vinyl chloride	4.84	0.50	ug/L	5.000	ND	96.8	49.8-180			
<i>Surrogate: Dibromofluoromethane</i>	5.02		ug/L	5.000		100	68.9-141			
<i>Surrogate: Toluene-d8</i>	4.93		ug/L	5.000		98.6	73.3-114			
<i>Surrogate: 4-Bromofluorobenzene</i>	4.65		ug/L	5.000		93.0	72.2-114			

<b>Matrix Spike Dup (A710045-MSD1)</b>	<b>Source: A174009-30</b>			Prepared: 10/11/2017		Analyzed: 10/11/2017 15:06				
1,1,1,2-Tetrachloroethane	4.81	0.50	ug/L	5.000	ND	96.2	77.8-137	1.24	20	
1,1,1-Trichloroethane	5.03	0.50	ug/L	5.000	ND	101	66.3-167	1.58	20	
1,1,2,2-Tetrachloroethane	4.57	0.50	ug/L	5.000	ND	91.4	61.3-138	4.28	20	
1,1,2-Trichloroethane	5.58	0.50	ug/L	5.000	ND	112	75.4-132	6.75	20	
1,1,2-Trichlorotrifluoroethane	5.35	0.50	ug/L	5.000	ND	107	57.7-198	0.373	20	
1,1-Dichloroethane	4.93	0.50	ug/L	5.000	ND	98.6	66.9-154	1.01	20	
1,1-Dichloroethene	5.70	0.50	ug/L	5.000	ND	114	50.1-187	10.1	20	
1,1-Dichloropropene	4.76	0.50	ug/L	5.000	ND	95.2	74.1-127	2.77	20	
1,2,3-Trichlorobenzene	5.17	2.0	ug/L	5.000	ND	103	75.4-122	1.17	20	B
1,2,3-Trichloropropane	4.49	1.0	ug/L	5.000	ND	89.8	68.4-141	6.88	20	
1,2,4-Trichlorobenzene	5.06	2.0	ug/L	5.000	ND	101	72.1-121	1.19	20	
1,2,4-Trimethylbenzene	4.75	0.50	ug/L	5.000	ND	95.0	86.5-121	3.21	20	
1,2-Dibromo-3-chloropropane	4.66	0.50	ug/L	5.000	ND	93.2	49.9-130	8.23	20	
1,2-Dibromoethane (EDB)	4.74	0.50	ug/L	5.000	ND	94.8	74.4-124	3.73	20	
1,2-Dichlorobenzene	4.69	0.50	ug/L	5.000	ND	93.8	88.5-114	0.00	20	
1,2-Dichloroethane	4.85	0.50	ug/L	5.000	ND	97.0	72.6-161	1.23	20	
1,2-Dichloropropane	4.42	0.50	ug/L	5.000	ND	88.4	84.7-119	5.50	20	
1,3,5-Trimethylbenzene	4.81	0.50	ug/L	5.000	ND	96.2	87.3-122	4.46	20	
1,3-Dichlorobenzene	4.85	0.50	ug/L	5.000	ND	97.0	90.1-115	3.35	20	
1,3-Dichloropropane	4.50	0.50	ug/L	5.000	ND	90.0	76.6-126	5.83	20	
1,4-Dichlorobenzene	4.85	0.50	ug/L	5.000	ND	97.0	87.6-113	2.72	20	
2,2-Dichloropropane	5.28	0.50	ug/L	5.000	ND	106	72.3-145	1.13	20	
2-Butanone	41.4	20	ug/L	50.00	ND	82.7	32.2-170	13.1	20	
2-Chlorotoluene	4.85	0.50	ug/L	5.000	ND	97.0	87.9-117	2.29	20	
2-Hexanone	44.9	20	ug/L	50.00	ND	89.9	30.2-168	12.0	20	
4-Chlorotoluene	4.80	0.50	ug/L	5.000	ND	96.0	87.5-120	2.11	20	
4-Methyl-2-pentanone	45.1	20	ug/L	50.00	ND	90.1	39.1-168	12.3	20	
Acetone	49.5	20	ug/L	50.00	ND	99.0	31.2-199	9.92	20	
Benzene	4.65	0.50	ug/L	5.000	ND	93.0	67.8-136	1.08	20	
Bromobenzene	4.71	0.50	ug/L	5.000	ND	94.2	84.5-111	2.15	20	
Bromochloromethane	4.69	0.50	ug/L	5.000	ND	93.8	80.9-134	1.48	20	
Bromodichloromethane	4.83	0.50	ug/L	5.000	ND	96.6	76.1-144	1.85	20	



2525 Advance Road  
 Madison, WI 53718  
 608.221.8700 Phone  
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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch A710045 - EPA 5030B**

Matrix Spike Dup (A710045-MSD1)	Source: A174009-30		Prepared: 10/11/2017 Analyzed: 10/11/2017 15:06							
Bromoform	4.66	0.50	ug/L	5.000	ND	93.2	60.2-142	9.41	20	
Bromomethane	5.25	5.0	ug/L	5.000	ND	105	50.3-198	8.13	20	
Carbon disulfide	5.07	0.50	ug/L	5.000	ND	101	35.6-196	23.8	20	X
Carbon tetrachloride	4.93	0.50	ug/L	5.000	ND	98.6	69.7-152	0.405	20	
Chlorobenzene	4.82	0.50	ug/L	5.000	ND	96.4	89.3-113	2.73	20	
Chloroethane	4.85	5.0	ug/L	5.000	ND	97.0	50.2-198	7.49	20	J
Chloroform	4.96	0.50	ug/L	5.000	ND	99.2	66.2-164	2.24	20	
Chloromethane	5.09	2.0	ug/L	5.000	1.38	74.2	46.5-179	5.54	20	
cis-1,2-Dichloroethene	4.82	0.50	ug/L	5.000	ND	96.4	67.5-137	6.42	20	
cis-1,3-Dichloropropene	4.53	0.50	ug/L	5.000	ND	90.6	63.3-123	1.53	20	
Dibromochloromethane	4.73	0.50	ug/L	5.000	ND	94.6	76-133	5.95	20	
Dibromomethane	4.78	0.50	ug/L	5.000	ND	95.6	78.2-139	5.30	20	
Dichlorodifluoromethane	5.08	0.50	ug/L	5.000	ND	102	70.6-150	0.393	20	
Diisopropyl Ether	4.87	0.50	ug/L	5.000	ND	97.4	57.3-137	1.22	20	
Ethylbenzene	4.81	0.50	ug/L	5.000	ND	96.2	87.3-118	2.10	20	
Hexachlorobutadiene	5.49	2.0	ug/L	5.000	ND	110	55.4-161	4.85	20	
Isopropylbenzene	4.80	0.50	ug/L	5.000	ND	96.0	89-115	1.89	20	
m,p-Xylene	9.45	1.0	ug/L	10.00	ND	94.5	88.4-117	0.531	20	B
Methyl t-Butyl Ether	4.69	0.50	ug/L	5.000	ND	93.8	54.4-145	5.19	20	
Methylene chloride	5.29	2.0	ug/L	5.000	ND	106	59.2-154	0.941	20	
Naphthalene	4.82	5.0	ug/L	5.000	ND	96.4	43.3-129	4.07	20	J, B
n-Butyl Benzene	4.94	0.50	ug/L	5.000	ND	98.8	85.9-119	1.63	20	
n-Hexane	4.48	0.50	ug/L	5.000	ND	89.6	44.3-150	1.77	20	
n-Propyl Benzene	4.73	0.50	ug/L	5.000	ND	94.6	83.7-124	1.49	20	
o-Xylene	4.67	0.50	ug/L	5.000	ND	93.4	83.9-112	0.427	20	
p-Isopropyltoluene	4.96	0.50	ug/L	5.000	ND	99.2	89.6-114	3.07	20	
sec-Butyl Benzene	4.81	0.50	ug/L	5.000	ND	96.2	85.5-120	3.81	20	
Styrene	4.59	0.50	ug/L	5.000	ND	91.8	79.7-123	0.868	20	B
tert-Butylbenzene	4.68	0.50	ug/L	5.000	ND	93.6	78.6-120	4.37	20	
Tetrachloroethene	41.1	0.50	ug/L	5.000	37.8	65.8	78.8-123	23.8	20	M, X
Tetrahydrofuran	22.5	10	ug/L	25.00	ND	90.1	24.7-155	4.30	20	
Toluene	4.61	0.50	ug/L	5.000	ND	92.2	81-118	1.72	20	
trans-1,2-Dichloroethene	4.70	0.50	ug/L	5.000	ND	94.0	65.3-141	4.57	20	
trans-1,3-Dichloropropene	4.64	0.50	ug/L	5.000	ND	92.8	73.7-120	4.84	20	
Trichloroethene	4.82	0.50	ug/L	5.000	0.0900	94.6	77.1-123	1.47	20	
Trichlorofluoromethane	5.12	0.50	ug/L	5.000	ND	102	44.8-199	4.60	20	
Vinyl chloride	4.94	0.50	ug/L	5.000	ND	98.8	49.8-180	2.04	20	
<i>Surrogate: Dibromofluoromethane</i>	<i>4.76</i>		<i>ug/L</i>	<i>5.000</i>		<i>95.2</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>4.76</i>		<i>ug/L</i>	<i>5.000</i>		<i>95.2</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>4.62</i>		<i>ug/L</i>	<i>5.000</i>		<i>92.4</i>	<i>72.2-114</i>			

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

### Notes and Definitions

- X Precision for the matrix spike duplicate, laboratory control sample duplicate or lab duplicate was outside of control limits.
- M The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory control limits.
- J Analyte was detected but is below the reporting limit. The concentration is estimated.
- HC Results may be biased high because of high continuing calibration verification (CCV).
- D Data reported from a dilution
- B Analyte is also detected in the associated method blank.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.
- RPD Relative Percent Difference



**Pace Analytical - ECCS Division**  
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 Madison, WI 53718  
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# CHAIN OF CUSTODY

No. 8375

Page: 1 of 3

Project Number: <b>266431 Ph. 1</b> PO Number:				Lab Work Order #: <b>A174009</b>				Report To: <b>ANDREW STEHN</b>															
Project Name: <b>MUC on+m</b>				Preservation Codes				Company: <b>TRC</b>															
Project Location (City, State): <b>Madison, WI</b>				Analyses Requested				Address 1: <b>708 Heartland Tri. Suite 3000</b>															
Turn Around (check one): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush				<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20px; text-align: center;">B</td> <td style="width:20px;"></td> <td style="width:20px;"></td> <td style="width:20px;"></td> <td style="width:20px;"></td> <td style="width:20px;"></td> </tr> <tr> <td style="text-align: center; vertical-align: middle;">VOCs</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				B						VOCs						Address 2: <b>Madison, WI 53747</b>			
B																							
VOCs																							
If Rush, Report Due Date:								E-mail Address: <b>astehn@trcsolutions.com</b>															
Sampled By (Print): <b>Wes Bragen</b>				Invoice To:																			
Sample Description				Collection Date   Time   Matrix   Total # of Containers				Company: <b>Same as above</b>															
								Address 1:															
								Address 2:															
								Comments				Lab ID		Lab Receipt Time									
MP-14 Part 1 (170 - 178)		10/2/17 1335		W 3		X				01													
MP-14 Part 2 (135 - 140)		1434		W 3		X		Vial C air bubble < 6mm		02													
MP-14 Part 3 (100 - 105)		1455		W 3		X				03													
MP-16 Part 1 (175 - 179)		1539		W 3		X				04													
MP-16 Part 2 (140 - 144)		1600		W 3		X				05													
MP-16 Part 2 (106 - 116)		1620		W 3		X		Label Part 3 Vial C air bubble < 6mm		06													
MP-15 Part 1 (177 - 187)		10/3/17 0755		W 3		X				07													
MP-15 Part 2 (142 - 146)		0835		W 3		X		Vial C air bubble < 6mm		08													
MP-15 Part 3 (120 - 125)		0855		W 3		X				09													
MP-15 Part 4 (100 - 105)		0920		W 3		X				10													
<b>Preservation Codes</b> A=None B=HCL C=H <sub>2</sub> SO <sub>4</sub> D=HNO <sub>3</sub> E=EnCore F=Methanol G=NaOH O=Other (Indicate)  <b>Matrix Codes</b> A=Air S=Soil W=Water O=Other		<b>Other Comments:</b> Relinquished By: <i>[Signature]</i> Date: <b>10/5/17</b> Time: <b>1000</b> Relinquished By: _____ Date: _____ Time: _____				Received By: <b>Kari-An Kelli</b> Date: <b>10/5/17</b> Time: <b>1000</b>		Received By: _____ Date: _____ Time: _____															
						Custody Seal: <input checked="" type="checkbox"/> NA <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		Shipped Via: <b>Pickup</b>		Receipt Temp: <b>2.3°C</b>		Thermometer #/ Exp. Date: <b>160142274 1/21/18</b>		Temp Blank: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N									



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# CHAIN OF CUSTODY

No. 8376

Page: 2 of 3

Project Number: 266431 P.1 PO Number:				Lab Work Order #: A174009				Report To: ANDREW STEAN																																	
Project Name: MUC OMTM				Preservation Codes				Company: TRC																																	
Project Location (City, State): Madison, WI				Analyses Requested				Address 1: 708 Hebert Rd Suite 3000																																	
Turn Around (check one): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush				<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">B</td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> </tr> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">VOCs</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Matrix</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Total # of Containers</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				B										VOCs										Matrix	Total # of Containers									Address 2:			
B																																									
VOCs																																									
Matrix	Total # of Containers																																								
If Rush, Report Due Date:								E-mail Address: astean@tresolutions.com																																	
Sampled By (Print): Wes Braga								Invoice To:																																	
								Company: Same as above																																	
								Address 1:																																	
								Address 2:																																	
Sample Description		Collection		Matrix	Total # of Containers	VOCs						Comments	Lab ID	Lab Receipt Time																											
		Date	Time																																						
MP-15 Post 5 (88-92)		10/3/17	0936	W	3	X							11																												
MP-13 Port 1 (163-167)			1045	W	3	X							12																												
MP-13 Port 2 (135-139)			1103	W	3	X							13																												
MP-13 Port 3 (121-125)			1115	W	3	X							14																												
MP-13 Port 4 (102-106)			1135	W	3	X							15																												
MP-13 Port 5 (81-85)			1152	W	3	X							16																												
MP-13 Port 6 (67-71)			1208	W	3	X							17																												
MP-13 Port 7 (44-48)			1225	W	3	X							18																												
MW-25 D2			1446	W	3	X							19																												
MW-25 D			1634	W	3	X						Vial Cap bubble < 6mm	20																												
<b>Preservation Codes</b> A=None B=HCL C=H <sub>2</sub> SO <sub>4</sub> D=HNO <sub>3</sub> E=EnCore F=Methanol G=NaOH O=Other (Indicate)		<b>Other Comments:</b>		Relinquished By: <i>Wes Braga</i>			Date: 10/5/17	Time: 1000	Received By: <i>Kari Ann Kelli</i>			Date: 10/5/17	Time: 1000																												
				Relinquished By:			Date:	Time:	Received By:			Date:	Time:																												
<b>Matrix Codes</b> A=Air S=Soil W=Water O=Other		Custody Seal: <input checked="" type="checkbox"/> NA <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact			Shipped Via: Pickup		Receipt Temp: 2.3°C		Thermometer #/ Exp. Date: 160142274 1/21/18		Temp Blank: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N																														



**Pace Analytical - ECCS Division**  
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# CHAIN OF CUSTODY

No. 8377

Page: 3 of 3

Project Number: 266431 Ph 1 PO Number:				Lab Work Order #: A174009				Report To: ANDREW STEHN					
Project Name: MUC OM+M				Preservation Codes				Company: TRC					
Project Location (City, State): Madison, WI				Analyses Requested				Address 1: 708 Heartland Trl. STE 3000					
Turn Around (check one): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush				Matrix Total # of Containers VOCs				Address 2: Madison, WI					
If Rush, Report Due Date:								E-mail Address: astehn@trc-solutions.com					
Sampled By (Print): Wes Bragan								Invoice To:					
								Company: Same as above					
				Address 1:				Address 2:					
Sample Description		Collection		Matrix	Total # of Containers						Comments	Lab ID	Lab Receipt Time
		Date	Time										
MW-27DZ		10/4/17	0902	W	3	X						21	
MW-27D			1019	W	3	X						22	
MW-5D3			1213	W	3	X						23	
MW-55			1219	W	3	X						24	
MW-5D			1318	W	3	X						25	
MW-5D2			1438	W	3	X						26	
MW-9DZ			1628	W	3	X						27	
MW-1			1635	W	3	X						28	
MW-9D			1716	W	3	X					Vial Brc airbubble < 6mm	29	
MW-2D		↓	1750	W	3	X						30	
<b>Preservation Codes</b> A=None B=HCL C=H <sub>2</sub> SO <sub>4</sub> D=HNO <sub>3</sub> E=EnCore F=Methanol G=NaOH O=Other (Indicate)		<b>Other Comments:</b>		Relinquished By: <i>Wesley Bragan</i>				Date: 10/5/17	Time: 1000	Received By:		Date:	Time:
				Relinquished By:				Date:	Time:	Received By:		Date:	Time:
<b>Matrix Codes</b> A=Air S=Soil W=Water O=Other		Custody Seal: <input checked="" type="checkbox"/> NA <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact				Shipped Via: Pickup		Receipt Temp: 2.3°C		Thermometer #/ Exp. Date: 160142274 1/21/18		Temp Blank: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N	



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October 19, 2017

Andrew Stehn  
TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison, WI 53717  
RE: Madison Kipp Corp. Semi-Annual Sampling

Enclosed are the analytical results for the samples received by the laboratory on 10/09/2017.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the 2009 NELAC Standards and the appropriate agencies listed below, unless otherwise noted in the case narrative. This analytical report should be reproduced in its entirety.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica Esser  
Project Manager

Certification List			Expires
ADEQ	Arkansas Department of Environmental Quality	17-065-0	09/26/2018
DODELAP	DOD ELAP Accreditation (A2LA)	3269.01	03/31/2018
ILEPA	Illinois Secondary NELAP Accreditation	003174	04/30/2018
KDHE	Kansas Secondary NELAP Accreditation	E-10384	04/30/2018
LELAP	Louisiana Primary NELAP Accreditation	04165	06/30/2018
NCDEQ	North Carolina Dept. of Environmental Quality Accreditation	688	12/31/2017
NJDEP	New Jersey Secondary NELAP Accreditation	WI004	06/30/2018
ODEQ	Oklahoma Department of Environmental Quality Accreditation	2017-154	08/31/2018
TCEQ	Texas Secondary NELAP Accreditation	T104704504-16-7	11/30/2017
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2018



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TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4D2	A174103-01	Water	10/05/2017	10/09/2017
MW-4S	A174103-02	Water	10/05/2017	10/09/2017
MW-3D3	A174103-04	Water	10/05/2017	10/09/2017
MW-3D2	A174103-05	Water	10/05/2017	10/09/2017
MW-3S	A174103-06	Water	10/05/2017	10/09/2017
MW-3D	A174103-07	Water	10/05/2017	10/09/2017
MW-23D	A174103-08	Water	10/06/2017	10/09/2017
MW-23S	A174103-09	Water	10/06/2017	10/09/2017
MW-22D	A174103-10	Water	10/06/2017	10/09/2017
MW-22S	A174103-11	Water	10/06/2017	10/09/2017
DUP-01	A174103-12	Water	10/06/2017	10/09/2017
DUP-02	A174103-13	Water	10/06/2017	10/09/2017
DUP-03	A174103-14	Water	10/06/2017	10/09/2017
DUP-04	A174103-15	Water	10/06/2017	10/09/2017

**CASE NARRATIVE**

**Sample Receipt Information:**

15 samples were received on 10/09/2017. Samples were received at 3.8 degrees Celsius. Samples were received in acceptable condition.

TSS and TDS analysis was subcontracted to Pace Analytical in Green Bay, WI. Please see their appended report for quality control results.

Please see the chain of custody (COC) document at the end of this report for additional information.





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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-4D2**  
**A174103-01 (Water)**

**Date Sampled**  
**10/05/2017 09:47**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
---------	--------	--------------------	-----------------------	-------	----------	----------	----------	--------	------------

**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Benzene	ND	0.089	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	



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TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**MW-4D2**  
**A174103-01 (Water)**

Date Sampled  
10/05/2017 09:47

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

<b>Chloromethane</b>	<b>0.93</b>	0.16	2.0	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	J
cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
<b>Naphthalene</b>	<b>0.13</b>	0.088	5.0	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	B, J
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
<b>Tetrachloroethene</b>	<b>0.61</b>	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	B
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Trichloroethene	ND	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/11/2017	10/11/2017 10:09	EPA 8260B	
Surrogate: Dibromofluoromethane			98.8 %	68.9-141		10/11/2017	10/11/2017 10:09	EPA 8260B	
Surrogate: Toluene-d8			98.7 %	73.3-114		10/11/2017	10/11/2017 10:09	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			96.5 %	72.2-114		10/11/2017	10/11/2017 10:09	EPA 8260B	



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TRC Environmental Corporation, Inc. 708 Heartland Trail, Ste 3000 Madison WI, 53717	Project: Madison Kipp Corp. Semi-Annual Sampling Project Number: 266431 Project Manager: Andrew Stehn
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**MW-4S**  
**A174103-02 (Water)**

Date Sampled  
 10/05/2017 09:57

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/17/2017 22:18	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/17/2017 22:18	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/17/2017 22:18	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/17/2017 22:18	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	10/16/2017	10/17/2017 22:18	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/17/2017 22:18	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/17/2017 22:18	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/17/2017 22:18	EPA 8082A	
Surrogate: Decachlorobiphenyl			122 %	72.5-127		10/16/2017	10/17/2017 22:18	EPA 8082A	
Surrogate: Tetrachloro-meta-xylene			104 %	59.9-118		10/16/2017	10/17/2017 22:18	EPA 8082A	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29793**

Total Dissolved Solids	3750	8.7	20.0	mg/L	1	10/12/2017	10/12/2017 13:37	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29768**

Total Suspended Solids	ND	0.95	2.0	mg/L	1	10/11/2017	10/11/2017 12:36	SM 2540D	
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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-3D3**  
**A174103-04 (Water)**

Date Sampled  
 10/05/2017 14:44

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Benzene	ND	0.089	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	



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TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**MW-3D3**  
**A174103-04 (Water)**

Date Sampled  
10/05/2017 14:44

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

<b>Chloromethane</b>	<b>0.58</b>	0.16	2.0	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	J
cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
<b>Naphthalene</b>	<b>0.10</b>	0.088	5.0	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	B, J
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
<b>Tetrachloroethene</b>	<b>0.15</b>	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	B, J
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
<b>Toluene</b>	<b>0.070</b>	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	J
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Trichloroethene	ND	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/11/2017	10/11/2017 10:37	EPA 8260B	
Surrogate: Dibromofluoromethane			99.9 %	68.9-141		10/11/2017	10/11/2017 10:37	EPA 8260B	
Surrogate: Toluene-d8			98.8 %	73.3-114		10/11/2017	10/11/2017 10:37	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			97.4 %	72.2-114		10/11/2017	10/11/2017 10:37	EPA 8260B	



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-3D2**  
**A174103-05 (Water)**

Date Sampled  
 10/05/2017 14:49

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
<b>Acetone</b>	<b>25</b>	3.4	20	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Benzene	ND	0.089	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
<b>Chloromethane</b>	<b>5.1</b>	0.16	2.0	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	



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TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**MW-3D2**  
**A174103-05 (Water)**

Date Sampled  
10/05/2017 14:49

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

cis-1,2-Dichloroethene	34	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
<b>Naphthalene</b>	<b>0.090</b>	0.088	5.0	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	B, J
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
<b>Tetrachloroethene</b>	<b>0.92</b>	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	B
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>0.28</b>	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	J
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
<b>Trichloroethene</b>	<b>0.80</b>	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/11/2017	10/11/2017 11:05	EPA 8260B	

Surrogate: Dibromofluoromethane			100 %	68.9-141		10/11/2017	10/11/2017 11:05	EPA 8260B	
Surrogate: Toluene-d8			98.1 %	73.3-114		10/11/2017	10/11/2017 11:05	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			96.0 %	72.2-114		10/11/2017	10/11/2017 11:05	EPA 8260B	





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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-3S**  
**A174103-06 (Water)**

Date Sampled  
 10/05/2017 15:52

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	2.8	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,1,1-Trichloroethane	ND	2.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	2.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,1,2-Trichloroethane	ND	2.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	3.3	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,1-Dichloroethane	ND	3.0	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,1-Dichloroethene	ND	3.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,1-Dichloropropene	ND	2.8	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,2,3-Trichlorobenzene	ND	1.1	50	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,2,3-Trichloropropane	ND	3.8	25	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,2,4-Trichlorobenzene	ND	1.9	50	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,2,4-Trimethylbenzene	ND	1.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	6.3	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	3.3	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,2-Dichlorobenzene	ND	1.9	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,2-Dichloroethane	ND	2.0	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,2-Dichloropropane	ND	2.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,3,5-Trimethylbenzene	ND	1.9	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,3-Dichlorobenzene	ND	2.4	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,3-Dichloropropane	ND	2.8	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
1,4-Dichlorobenzene	ND	1.8	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
2,2-Dichloropropane	ND	3.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
2-Butanone	ND	75	500	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
2-Chlorotoluene	ND	1.9	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
2-Hexanone	ND	24	500	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
4-Chlorotoluene	ND	1.8	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
4-Methyl-2-pentanone	ND	19	500	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Acetone	ND	85	500	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Benzene	ND	2.2	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Bromobenzene	ND	2.1	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Bromochloromethane	ND	7.8	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Bromodichloromethane	ND	1.9	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Bromoform	ND	2.2	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Bromomethane	ND	15	130	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Carbon disulfide	ND	1.3	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Carbon tetrachloride	ND	0.95	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Chlorobenzene	ND	1.8	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Chloroethane	ND	6.3	130	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Chloroform	ND	1.6	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	





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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-3S**  
**A174103-06 (Water)**

Date Sampled  
 10/05/2017 15:52

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Chloromethane	ND	4.0	50	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
<b>cis-1,2-Dichloroethene</b>	<b>20</b>	2.8	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	D
cis-1,3-Dichloropropene	ND	1.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Dibromochloromethane	ND	2.3	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Dibromomethane	ND	3.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Dichlorodifluoromethane	ND	2.8	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Diisopropyl Ether	ND	3.8	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Ethylbenzene	ND	1.4	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Hexachlorobutadiene	ND	3.3	50	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Isopropylbenzene	ND	2.0	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
m,p-Xylene	ND	1.4	25	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Methyl t-Butyl Ether	ND	3.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Methylene chloride	ND	3.5	50	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Naphthalene	ND	2.2	130	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
n-Butyl Benzene	ND	3.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
n-Hexane	ND	5.3	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
n-Propyl Benzene	ND	2.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
o-Xylene	ND	1.5	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
p-Isopropyltoluene	ND	2.1	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
sec-Butyl Benzene	ND	3.3	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Styrene	ND	1.6	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
tert-Butylbenzene	ND	3.0	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
<b>Tetrachloroethene</b>	<b>690</b>	2.0	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	D, B
Tetrahydrofuran	ND	30	250	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Toluene	ND	1.3	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
trans-1,2-Dichloroethene	ND	2.8	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
trans-1,3-Dichloropropene	ND	2.4	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
<b>Trichloroethene</b>	<b>65</b>	1.6	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	D
Trichlorofluoromethane	ND	3.3	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Vinyl chloride	ND	4.0	13	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Xylenes, total	ND	2.9	38	ug/L	25	10/11/2017	10/11/2017 13:25	EPA 8260B	
Surrogate: Dibromofluoromethane			98.4 %	68.9-141		10/11/2017	10/11/2017 13:25	EPA 8260B	
Surrogate: Toluene-d8			98.3 %	73.3-114		10/11/2017	10/11/2017 13:25	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			95.7 %	72.2-114		10/11/2017	10/11/2017 13:25	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-3D**  
**A174103-07 (Water)**

Date Sampled  
 10/05/2017 16:26

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
<b>Acetone</b>	<b>40</b>	3.4	20	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
<b>Benzene</b>	<b>0.38</b>	0.089	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	J
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
<b>Chloroform</b>	<b>0.43</b>	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	J
<b>Chloromethane</b>	<b>2.1</b>	0.16	2.0	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	



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TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**MW-3D**  
**A174103-07 (Water)**

Date Sampled  
10/05/2017 16:26

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

<b>cis-1,2-Dichloroethene</b>	<b>1.7</b>	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
<b>Isopropylbenzene</b>	<b>0.11</b>	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	J
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
<b>Tetrachloroethene</b>	<b>13</b>	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	B
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
<b>Trichloroethene</b>	<b>2.0</b>	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/11/2017	10/11/2017 11:33	EPA 8260B	

Surrogate: Dibromofluoromethane  
Surrogate: Toluene-d8  
Surrogate: 4-Bromofluorobenzene

101 % 68.9-141 10/11/2017 10/11/2017 11:33 EPA 8260B  
97.3 % 73.3-114 10/11/2017 10/11/2017 11:33 EPA 8260B  
96.0 % 72.2-114 10/11/2017 10/11/2017 11:33 EPA 8260B



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 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-23D**  
**A174103-08 (Water)**

Date Sampled  
 10/06/2017 10:46

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/17/2017 22:43	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/17/2017 22:43	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/17/2017 22:43	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/17/2017 22:43	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	10/16/2017	10/17/2017 22:43	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/17/2017 22:43	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/17/2017 22:43	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/17/2017 22:43	EPA 8082A	

Surrogate: Decachlorobiphenyl

113 % 72.5-127

10/16/2017 10/17/2017 22:43

EPA 8082A

Surrogate: Tetrachloro-meta-xylene

98.3 % 59.9-118

10/16/2017 10/17/2017 22:43

EPA 8082A

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

1,1,1,2-Tetrachloroethane	ND	0.55	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,1,1-Trichloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,1,2-Trichloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.65	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,1-Dichloroethane	ND	0.60	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,1-Dichloroethene	ND	0.70	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,1-Dichloropropene	ND	0.55	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.23	10	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,2,3-Trichloropropane	ND	0.75	5.0	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.39	10	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.30	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	1.3	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.65	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,2-Dichlorobenzene	ND	0.38	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,2-Dichloroethane	ND	0.39	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,2-Dichloropropane	ND	0.50	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.38	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,3-Dichlorobenzene	ND	0.48	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,3-Dichloropropane	ND	0.55	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
1,4-Dichlorobenzene	ND	0.35	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
2,2-Dichloropropane	ND	0.70	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
2-Butanone	ND	15	100	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
2-Chlorotoluene	ND	0.38	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
2-Hexanone	ND	4.8	100	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
4-Chlorotoluene	ND	0.37	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
4-Methyl-2-pentanone	ND	3.9	100	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Acetone	ND	17	100	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-23D**  
**A174103-08 (Water)**

Date Sampled  
 10/06/2017 10:46

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

Benzene	ND	0.45	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Bromobenzene	ND	0.42	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Bromochloromethane	ND	1.6	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Bromodichloromethane	ND	0.39	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Bromoform	ND	0.44	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Bromomethane	ND	3.0	25	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Carbon disulfide	ND	0.27	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Carbon tetrachloride	ND	0.19	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Chlorobenzene	ND	0.37	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Chloroethane	ND	1.3	25	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Chloroform	ND	0.31	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
<b>Chloromethane</b>	<b>1.5</b>	0.80	10	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	J, D
cis-1,2-Dichloroethene	ND	0.55	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.31	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Dibromochloromethane	ND	0.46	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Dibromomethane	ND	0.70	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Dichlorodifluoromethane	ND	0.55	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Diisopropyl Ether	ND	0.75	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Ethylbenzene	ND	0.27	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Hexachlorobutadiene	ND	0.65	10	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Isopropylbenzene	ND	0.41	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
m,p-Xylene	ND	0.29	5.0	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Methyl t-Butyl Ether	ND	0.70	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Methylene chloride	ND	0.70	10	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Naphthalene	ND	0.44	25	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
n-Butyl Benzene	ND	0.70	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
n-Hexane	ND	1.1	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
n-Propyl Benzene	ND	0.50	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
o-Xylene	ND	0.29	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
p-Isopropyltoluene	ND	0.43	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
sec-Butyl Benzene	ND	0.65	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
<b>Styrene</b>	<b>0.45</b>	0.33	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	B, J, D
tert-Butylbenzene	ND	0.60	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
<b>Tetrachloroethene</b>	<b>130</b>	0.41	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	M, D, B
Tetrahydrofuran	ND	6.0	50	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Toluene	ND	0.27	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.55	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.48	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Trichloroethene	ND	0.31	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Trichlorofluoromethane	ND	0.65	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	



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TRC Environmental Corporation, Inc. 708 Heartland Trail, Ste 3000 Madison WI, 53717	Project: Madison Kipp Corp. Semi-Annual Sampling Project Number: 266431 Project Manager: Andrew Stehn
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**MW-23D**  
**A174103-08 (Water)**

Date Sampled  
 10/06/2017 10:46

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

Vinyl chloride	ND	0.80	2.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Xylenes, total	ND	0.58	7.5	ug/L	5	10/11/2017	10/12/2017 00:08	EPA 8260B	
Surrogate: Dibromofluoromethane			106 %		68.9-141	10/11/2017	10/12/2017 00:08	EPA 8260B	
Surrogate: Toluene-d8			99.2 %		73.3-114	10/11/2017	10/12/2017 00:08	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			97.4 %		72.2-114	10/11/2017	10/12/2017 00:08	EPA 8260B	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29793**

Total Dissolved Solids	524	8.7	20.0	mg/L	1	10/12/2017	10/12/2017 13:37	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29768**

Total Suspended Solids	ND	0.95	2.0	mg/L	1	10/11/2017	10/11/2017 12:36	SM 2540D	
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2525 Advance Road  
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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-23S**  
**A174103-09 (Water)**

Date Sampled  
 10/06/2017 13:09

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/17/2017 23:08	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/17/2017 23:08	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/17/2017 23:08	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/17/2017 23:08	EPA 8082A	
<b>PCB-1248</b>	<b>0.034</b>	0.020	0.13	ug/L	1	10/16/2017	10/17/2017 23:08	EPA 8082A	J
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/17/2017 23:08	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/17/2017 23:08	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/17/2017 23:08	EPA 8082A	

Surrogate: Decachlorobiphenyl

112 % 72.5-127

10/16/2017 10/17/2017 23:08

EPA 8082A

Surrogate: Tetrachloro-meta-xylene

113 % 59.9-118

10/16/2017 10/17/2017 23:08

EPA 8082A

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,1,1-Trichloroethane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,1,2-Trichloroethane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,1-Dichloroethane	ND	0.24	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,1-Dichloroethene	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,1-Dichloropropene	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.090	4.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,2,3-Trichloropropane	ND	0.30	2.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.15	4.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.50	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,2-Dichlorobenzene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,2-Dichloroethane	ND	0.16	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,2-Dichloropropane	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,3-Dichlorobenzene	ND	0.19	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,3-Dichloropropane	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
1,4-Dichlorobenzene	ND	0.14	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
2,2-Dichloropropane	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
2-Butanone	ND	6.0	40	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
2-Chlorotoluene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
2-Hexanone	ND	1.9	40	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
4-Chlorotoluene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
4-Methyl-2-pentanone	ND	1.5	40	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
<b>Acetone</b>	<b>14</b>	6.8	40	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	J, D





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TRC Environmental Corporation, Inc.  
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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-23S**  
**A174103-09 (Water)**

Date Sampled  
 10/06/2017 13:09

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Benzene	ND	0.18	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Bromobenzene	ND	0.17	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Bromochloromethane	ND	0.62	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Bromodichloromethane	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Bromoform	ND	0.18	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Bromomethane	ND	1.2	10	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Carbon disulfide	ND	0.11	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Carbon tetrachloride	ND	0.076	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Chlorobenzene	ND	0.15	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Chloroethane	ND	0.50	10	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Chloroform	ND	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
<b>Chloromethane</b>	<b>0.92</b>	0.32	4.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	J, D
<b>cis-1,2-Dichloroethene</b>	<b>33</b>	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	D
cis-1,3-Dichloropropene	ND	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Dibromochloromethane	ND	0.18	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Dibromomethane	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Dichlorodifluoromethane	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Diisopropyl Ether	ND	0.30	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Ethylbenzene	ND	0.11	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Hexachlorobutadiene	ND	0.26	4.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Isopropylbenzene	ND	0.16	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
m,p-Xylene	ND	0.11	2.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Methyl t-Butyl Ether	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Methylene chloride	ND	0.28	4.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Naphthalene	ND	0.18	10	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
n-Butyl Benzene	ND	0.28	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
n-Hexane	ND	0.42	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
n-Propyl Benzene	ND	0.20	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
o-Xylene	ND	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
p-Isopropyltoluene	ND	0.17	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
sec-Butyl Benzene	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Styrene	ND	0.13	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
tert-Butylbenzene	ND	0.24	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
<b>Tetrachloroethene</b>	<b>120</b>	0.41	2.5	ug/L	5	10/11/2017	10/12/2017 09:08	EPA 8260B	D, B
Tetrahydrofuran	ND	2.4	20	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Toluene	ND	0.11	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.22	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.19	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
<b>Trichloroethene</b>	<b>7.8</b>	0.12	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	D
Trichlorofluoromethane	ND	0.26	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	





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**MW-23S**  
**A174103-09 (Water)**

Date Sampled  
 10/06/2017 13:09

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Vinyl chloride	ND	0.32	1.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Xylenes, total	ND	0.23	3.0	ug/L	2	10/11/2017	10/11/2017 12:29	EPA 8260B	
Surrogate: Dibromofluoromethane			101 %	68.9-141		10/11/2017	10/11/2017 12:29	EPA 8260B	
Surrogate: Toluene-d8			102 %	73.3-114		10/11/2017	10/11/2017 12:29	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			99.1 %	72.2-114		10/11/2017	10/11/2017 12:29	EPA 8260B	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29793**

<b>Total Dissolved Solids</b>	<b>656</b>	8.7	20.0	mg/L	1	10/12/2017	10/12/2017 13:38	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29768**

<b>Total Suspended Solids</b>	<b>16.8</b>	1.9	4.0	mg/L	1	10/11/2017	10/11/2017 12:36	SM 2540D	
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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-22D**  
**A174103-10 (Water)**

Date Sampled  
 10/06/2017 15:46

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/17/2017 23:32	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/17/2017 23:32	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/17/2017 23:32	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/17/2017 23:32	EPA 8082A	
<b>PCB-1248</b>	<b>0.30</b>	0.020	0.13	ug/L	1	10/16/2017	10/17/2017 23:32	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/17/2017 23:32	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/17/2017 23:32	EPA 8082A	
<b>Total PCBs</b>	<b>0.30</b>	0.038	0.25	ug/L	1	10/16/2017	10/17/2017 23:32	EPA 8082A	

Surrogate: Decachlorobiphenyl

112 % 72.5-127

10/16/2017 10/17/2017 23:32

EPA 8082A

Surrogate: Tetrachloro-meta-xylene

108 % 59.9-118

10/16/2017 10/17/2017 23:32

EPA 8082A

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,1,1-Trichloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,1,2-Trichloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,1-Dichloroethane	ND	0.60	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,1-Dichloroethene	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,1-Dichloropropene	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.23	10	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,2,3-Trichloropropane	ND	0.75	5.0	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.39	10	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.30	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	1.3	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,2-Dichlorobenzene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,2-Dichloroethane	ND	0.39	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,2-Dichloropropane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,3-Dichlorobenzene	ND	0.48	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,3-Dichloropropane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
1,4-Dichlorobenzene	ND	0.35	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
2,2-Dichloropropane	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
2-Butanone	ND	15	100	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
2-Chlorotoluene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
2-Hexanone	ND	4.8	100	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
4-Chlorotoluene	ND	0.37	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
4-Methyl-2-pentanone	ND	3.9	100	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Acetone	ND	17	100	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-22D**  
**A174103-10 (Water)**

Date Sampled  
 10/06/2017 15:46

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Benzene	ND	0.45	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Bromobenzene	ND	0.42	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Bromochloromethane	ND	1.6	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Bromodichloromethane	ND	0.39	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Bromoform	ND	0.44	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Bromomethane	ND	3.0	25	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Carbon disulfide	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Carbon tetrachloride	ND	0.19	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Chlorobenzene	ND	0.37	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Chloroethane	ND	1.3	25	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Chloroform	ND	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Chloromethane	ND	0.80	10	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
<b>cis-1,2-Dichloroethene</b>	<b>47</b>	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	D
cis-1,3-Dichloropropene	ND	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Dibromochloromethane	ND	0.46	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Dibromomethane	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Dichlorodifluoromethane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Diisopropyl Ether	ND	0.75	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Ethylbenzene	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Hexachlorobutadiene	ND	0.65	10	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Isopropylbenzene	ND	0.41	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
m,p-Xylene	ND	0.29	5.0	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Methyl t-Butyl Ether	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Methylene chloride	ND	0.70	10	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Naphthalene	ND	0.44	25	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
n-Butyl Benzene	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
n-Hexane	ND	1.1	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
n-Propyl Benzene	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
o-Xylene	ND	0.29	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
p-Isopropyltoluene	ND	0.43	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
sec-Butyl Benzene	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Styrene	ND	0.33	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
tert-Butylbenzene	ND	0.60	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
<b>Tetrachloroethene</b>	<b>120</b>	0.41	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	D, B
Tetrahydrofuran	ND	6.0	50	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Toluene	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>2.3</b>	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	J, D
trans-1,3-Dichloropropene	ND	0.48	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
<b>Trichloroethene</b>	<b>9.4</b>	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	D
Trichlorofluoromethane	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	



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TRC Environmental Corporation, Inc. 708 Heartland Trail, Ste 3000 Madison WI, 53717	Project: Madison Kipp Corp. Semi-Annual Sampling Project Number: 266431 Project Manager: Andrew Stehn
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**MW-22D**  
**A174103-10 (Water)**

Date Sampled  
 10/06/2017 15:46

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Vinyl chloride	10	0.80	2.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	D
Xylenes, total	ND	0.58	7.5	ug/L	5	10/11/2017	10/11/2017 12:57	EPA 8260B	
Surrogate: Dibromofluoromethane			97.8 %	68.9-141		10/11/2017	10/11/2017 12:57	EPA 8260B	
Surrogate: Toluene-d8			97.0 %	73.3-114		10/11/2017	10/11/2017 12:57	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			95.7 %	72.2-114		10/11/2017	10/11/2017 12:57	EPA 8260B	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29793**

Total Dissolved Solids	892	8.7	20.0	mg/L	1	10/12/2017	10/12/2017 13:39	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29768**

Total Suspended Solids	ND	0.95	2.0	mg/L	1	10/11/2017	10/11/2017 12:36	SM 2540D	
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TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**MW-22S**  
**A174103-11 (Water)**

**Date Sampled**  
**10/06/2017 15:20**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/17/2017 23:57	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/17/2017 23:57	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/17/2017 23:57	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/17/2017 23:57	EPA 8082A	
<b>PCB-1248</b>	<b>2.0</b>	0.020	0.13	ug/L	1	10/16/2017	10/17/2017 23:57	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/17/2017 23:57	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/17/2017 23:57	EPA 8082A	
<b>Total PCBs</b>	<b>2.0</b>	0.038	0.25	ug/L	1	10/16/2017	10/17/2017 23:57	EPA 8082A	

Surrogate: Decachlorobiphenyl

115 % 72.5-127

10/16/2017 10/17/2017 23:57

EPA 8082A

Surrogate: Tetrachloro-meta-xylene

110 % 59.9-118

10/16/2017 10/17/2017 23:57

EPA 8082A

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
<b>1,2,4-Trichlorobenzene</b>	<b>0.080</b>	0.077	2.0	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	B, J
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
<b>1,2-Dichlorobenzene</b>	<b>0.11</b>	0.076	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	J
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	



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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-22S**  
**A174103-11 (Water)**

Date Sampled  
 10/06/2017 15:20

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Benzene	ND	0.089	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
<b>Chloroform</b>	<b>0.50</b>	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
<b>Chloromethane</b>	<b>3.0</b>	0.16	2.0	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
<b>cis-1,2-Dichloroethene</b>	<b>38</b>	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	M, X
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
<b>Tetrachloroethene</b>	<b>24</b>	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	X, B
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>0.49</b>	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	J
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
<b>Trichloroethene</b>	<b>9.4</b>	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	



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**MW-22S**  
**A174103-11 (Water)**

Date Sampled  
 10/06/2017 15:20

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Vinyl chloride	0.85	0.16	0.50	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/11/2017	10/11/2017 12:01	EPA 8260B	
Surrogate: Dibromofluoromethane			101 %	68.9-141		10/11/2017	10/11/2017 12:01	EPA 8260B	
Surrogate: Toluene-d8			98.5 %	73.3-114		10/11/2017	10/11/2017 12:01	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			97.8 %	72.2-114		10/11/2017	10/11/2017 12:01	EPA 8260B	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29793**

Total Dissolved Solids	830	8.7	20.0	mg/L	1	10/12/2017	10/12/2017 13:39	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29768**

Total Suspended Solids	1.2	0.95	2.0	mg/L	1	10/11/2017	10/11/2017 12:36	SM 2540D	Ja
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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**DUP-01**  
**A174103-12 (Water)**

Date Sampled  
 10/06/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/18/2017 00:22	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/18/2017 00:22	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/18/2017 00:22	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/18/2017 00:22	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	10/16/2017	10/18/2017 00:22	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/18/2017 00:22	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/18/2017 00:22	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/18/2017 00:22	EPA 8082A	
Surrogate: Decachlorobiphenyl			126 %	72.5-127		10/16/2017	10/18/2017 00:22	EPA 8082A	
Surrogate: Tetrachloro-meta-xylene			108 %	59.9-118		10/16/2017	10/18/2017 00:22	EPA 8082A	

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,1,1-Trichloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,1,2-Trichloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,1-Dichloroethane	ND	0.60	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,1-Dichloroethene	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,1-Dichloropropene	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.23	10	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,2,3-Trichloropropane	ND	0.75	5.0	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.39	10	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.30	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	1.3	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,2-Dichlorobenzene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,2-Dichloroethane	ND	0.39	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,2-Dichloropropane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,3-Dichlorobenzene	ND	0.48	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,3-Dichloropropane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
1,4-Dichlorobenzene	ND	0.35	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
2,2-Dichloropropane	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
2-Butanone	ND	15	100	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
2-Chlorotoluene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
2-Hexanone	ND	4.8	100	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
4-Chlorotoluene	ND	0.37	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
4-Methyl-2-pentanone	ND	3.9	100	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Acetone	ND	17	100	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	





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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**DUP-01**  
**A174103-12 (Water)**

Date Sampled  
 10/06/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Benzene	ND	0.45	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Bromobenzene	ND	0.42	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Bromochloromethane	ND	1.6	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Bromodichloromethane	ND	0.39	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Bromoform	ND	0.44	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Bromomethane	ND	3.0	25	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Carbon disulfide	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Carbon tetrachloride	ND	0.19	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Chlorobenzene	ND	0.37	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Chloroethane	ND	1.3	25	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Chloroform	ND	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
<b>Chloromethane</b>	<b>4.3</b>	0.80	10	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	J, D
cis-1,2-Dichloroethene	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Dibromochloromethane	ND	0.46	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Dibromomethane	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Dichlorodifluoromethane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Diisopropyl Ether	ND	0.75	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Ethylbenzene	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Hexachlorobutadiene	ND	0.65	10	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Isopropylbenzene	ND	0.41	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
m,p-Xylene	ND	0.29	5.0	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Methyl t-Butyl Ether	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Methylene chloride	ND	0.70	10	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Naphthalene	ND	0.44	25	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
n-Butyl Benzene	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
n-Hexane	ND	1.1	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
n-Propyl Benzene	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
o-Xylene	ND	0.29	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
p-Isopropyltoluene	ND	0.43	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
sec-Butyl Benzene	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Styrene	ND	0.33	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
tert-Butylbenzene	ND	0.60	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
<b>Tetrachloroethene</b>	<b>130</b>	0.41	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	D, B
Tetrahydrofuran	ND	6.0	50	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Toluene	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.48	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Trichloroethene	ND	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Trichlorofluoromethane	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	



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**DUP-01**  
**A174103-12 (Water)**

Date Sampled  
 10/06/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Vinyl chloride	ND	0.80	2.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
Xylenes, total	ND	0.58	7.5	ug/L	5	10/11/2017	10/11/2017 14:49	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			103 %		68.9-141	10/11/2017	10/11/2017 14:49	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			100 %		73.3-114	10/11/2017	10/11/2017 14:49	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			97.5 %		72.2-114	10/11/2017	10/11/2017 14:49	EPA 8260B	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29793**

Total Dissolved Solids	534	8.7	20.0	mg/L	1	10/12/2017	10/12/2017 13:39	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29768**

Total Suspended Solids	ND	0.95	2.0	mg/L	1	10/11/2017	10/11/2017 12:36	SM 2540D	
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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**DUP-02**  
**A174103-13 (Water)**

Date Sampled  
 10/06/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/18/2017 00:47	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/18/2017 00:47	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/18/2017 00:47	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/18/2017 00:47	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	10/16/2017	10/18/2017 00:47	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/18/2017 00:47	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/18/2017 00:47	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/18/2017 00:47	EPA 8082A	
Surrogate: Decachlorobiphenyl			102 %	72.5-127		10/16/2017	10/18/2017 00:47	EPA 8082A	
Surrogate: Tetrachloro-meta-xylene			102 %	59.9-118		10/16/2017	10/18/2017 00:47	EPA 8082A	

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,1,1-Trichloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,1,2-Trichloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,1-Dichloroethane	ND	0.60	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,1-Dichloroethene	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,1-Dichloropropene	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.23	10	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,2,3-Trichloropropane	ND	0.75	5.0	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.39	10	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.30	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	1.3	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,2-Dichlorobenzene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,2-Dichloroethane	ND	0.39	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,2-Dichloropropane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,3-Dichlorobenzene	ND	0.48	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,3-Dichloropropane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
1,4-Dichlorobenzene	ND	0.35	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
2,2-Dichloropropane	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
2-Butanone	ND	15	100	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
2-Chlorotoluene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
2-Hexanone	ND	4.8	100	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
4-Chlorotoluene	ND	0.37	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
4-Methyl-2-pentanone	ND	3.9	100	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Acetone	ND	17	100	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**DUP-02**  
**A174103-13 (Water)**

Date Sampled  
 10/06/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Benzene	ND	0.45	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Bromobenzene	ND	0.42	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Bromochloromethane	ND	1.6	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Bromodichloromethane	ND	0.39	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Bromoform	ND	0.44	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Bromomethane	ND	3.0	25	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Carbon disulfide	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Carbon tetrachloride	ND	0.19	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Chlorobenzene	ND	0.37	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Chloroethane	ND	1.3	25	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Chloroform	ND	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
<b>Chloromethane</b>	<b>2.7</b>	0.80	10	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	J, D
<b>cis-1,2-Dichloroethene</b>	<b>33</b>	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	D
cis-1,3-Dichloropropene	ND	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Dibromochloromethane	ND	0.46	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Dibromomethane	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Dichlorodifluoromethane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Diisopropyl Ether	ND	0.75	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Ethylbenzene	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Hexachlorobutadiene	ND	0.65	10	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Isopropylbenzene	ND	0.41	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
m,p-Xylene	ND	0.29	5.0	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Methyl t-Butyl Ether	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Methylene chloride	ND	0.70	10	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
<b>Naphthalene</b>	<b>0.45</b>	0.44	25	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	B, J, D
n-Butyl Benzene	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
n-Hexane	ND	1.1	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
n-Propyl Benzene	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
o-Xylene	ND	0.29	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
p-Isopropyltoluene	ND	0.43	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
sec-Butyl Benzene	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
<b>Styrene</b>	<b>0.35</b>	0.33	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	B, J, D
tert-Butylbenzene	ND	0.60	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
<b>Tetrachloroethene</b>	<b>120</b>	0.41	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	D, B
Tetrahydrofuran	ND	6.0	50	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Toluene	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.48	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
<b>Trichloroethene</b>	<b>7.6</b>	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	D
Trichlorofluoromethane	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	



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**DUP-02**  
**A174103-13 (Water)**

Date Sampled  
 10/06/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Vinyl chloride	ND	0.80	2.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
Xylenes, total	ND	0.58	7.5	ug/L	5	10/11/2017	10/11/2017 15:17	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			96.9 %		68.9-141	10/11/2017	10/11/2017 15:17	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			96.3 %		73.3-114	10/11/2017	10/11/2017 15:17	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			95.5 %		72.2-114	10/11/2017	10/11/2017 15:17	EPA 8260B	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29793**

<b>Total Dissolved Solids</b>	<b>644</b>	8.7	20.0	mg/L	1	10/12/2017	10/12/2017 13:39	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29768**

<b>Total Suspended Solids</b>	<b>18.0</b>	1.9	4.0	mg/L	1	10/11/2017	10/11/2017 12:37	SM 2540D	
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TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**DUP-03**  
**A174103-14 (Water)**

Date Sampled  
**10/06/2017 00:00**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/18/2017 01:12	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/18/2017 01:12	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/18/2017 01:12	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/18/2017 01:12	EPA 8082A	
<b>PCB-1248</b>	<b>1.9</b>	0.020	0.13	ug/L	1	10/16/2017	10/18/2017 01:12	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/18/2017 01:12	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/18/2017 01:12	EPA 8082A	
<b>Total PCBs</b>	<b>1.9</b>	0.038	0.25	ug/L	1	10/16/2017	10/18/2017 01:12	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl</i>			95.2 %	72.5-127		10/16/2017	10/18/2017 01:12	EPA 8082A	
<i>Surrogate: Tetrachloro-meta-xylene</i>			89.9 %	59.9-118		10/16/2017	10/18/2017 01:12	EPA 8082A	

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
<b>1,1-Dichloroethene</b>	<b>0.14</b>	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	J
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
<b>1,2-Dichlorobenzene</b>	<b>0.11</b>	0.076	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	J
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
<b>Acetone</b>	<b>11</b>	3.4	20	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	J



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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**DUP-03**  
**A174103-14 (Water)**

Date Sampled  
 10/06/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Benzene	ND	0.089	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
<b>Chloroform</b>	<b>0.49</b>	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	J
<b>Chloromethane</b>	<b>5.2</b>	0.16	2.0	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
<b>cis-1,2-Dichloroethene</b>	<b>37</b>	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
m,p-Xylene	ND	0.057	1.0	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Naphthalene	ND	0.088	5.0	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
<b>Tetrachloroethene</b>	<b>23</b>	0.081	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	B
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>0.46</b>	0.11	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	J
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
<b>Trichloroethene</b>	<b>9.1</b>	0.062	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	



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TRC Environmental Corporation, Inc. 708 Heartland Trail, Ste 3000 Madison WI, 53717	Project: Madison Kipp Corp. Semi-Annual Sampling Project Number: 266431 Project Manager: Andrew Stehn
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**DUP-03**  
**A174103-14 (Water)**

Date Sampled  
 10/06/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Vinyl chloride	0.80	0.16	0.50	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/11/2017	10/11/2017 15:45	EPA 8260B	
Surrogate: Dibromofluoromethane			102 %	68.9-141		10/11/2017	10/11/2017 15:45	EPA 8260B	
Surrogate: Toluene-d8			100 %	73.3-114		10/11/2017	10/11/2017 15:45	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			97.9 %	72.2-114		10/11/2017	10/11/2017 15:45	EPA 8260B	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29793**

Total Dissolved Solids	838	8.7	20.0	mg/L	1	10/12/2017	10/12/2017 13:40	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29768**

Total Suspended Solids	ND	0.95	2.0	mg/L	1	10/11/2017	10/11/2017 12:37	SM 2540D	
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 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**DUP-04**  
**A174103-15 (Water)**

Date Sampled  
 10/06/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/18/2017 03:17	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/18/2017 03:17	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/18/2017 03:17	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/18/2017 03:17	EPA 8082A	
<b>PCB-1248</b>	<b>0.31</b>	0.020	0.13	ug/L	1	10/16/2017	10/18/2017 03:17	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/18/2017 03:17	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/18/2017 03:17	EPA 8082A	
<b>Total PCBs</b>	<b>0.31</b>	0.038	0.25	ug/L	1	10/16/2017	10/18/2017 03:17	EPA 8082A	

Surrogate: Decachlorobiphenyl

113 % 72.5-127

10/16/2017 10/18/2017 03:17

EPA 8082A

Surrogate: Tetrachloro-meta-xylene

107 % 59.9-118

10/16/2017 10/18/2017 03:17

EPA 8082A

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

1,1,1,2-Tetrachloroethane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,1,1-Trichloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,1,2-Trichloroethane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,1-Dichloroethane	ND	0.60	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,1-Dichloroethene	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,1-Dichloropropene	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.23	10	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,2,3-Trichloropropane	ND	0.75	5.0	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.39	10	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.30	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	1.3	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,2-Dichlorobenzene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,2-Dichloroethane	ND	0.39	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,2-Dichloropropane	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,3-Dichlorobenzene	ND	0.48	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,3-Dichloropropane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
1,4-Dichlorobenzene	ND	0.35	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
2,2-Dichloropropane	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
2-Butanone	ND	15	100	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
2-Chlorotoluene	ND	0.38	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
2-Hexanone	ND	4.8	100	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
4-Chlorotoluene	ND	0.37	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
4-Methyl-2-pentanone	ND	3.9	100	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Acetone	ND	17	100	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**DUP-04**  
**A174103-15 (Water)**

Date Sampled  
 10/06/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Benzene	ND	0.45	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Bromobenzene	ND	0.42	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Bromochloromethane	ND	1.6	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Bromodichloromethane	ND	0.39	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Bromoform	ND	0.44	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Bromomethane	ND	3.0	25	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Carbon disulfide	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Carbon tetrachloride	ND	0.19	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Chlorobenzene	ND	0.37	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Chloroethane	ND	1.3	25	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Chloroform	ND	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
<b>Chloromethane</b>	<b>4.9</b>	0.80	10	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	J, D
<b>cis-1,2-Dichloroethene</b>	<b>47</b>	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	D
cis-1,3-Dichloropropene	ND	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Dibromochloromethane	ND	0.46	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Dibromomethane	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Dichlorodifluoromethane	ND	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Diisopropyl Ether	ND	0.75	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Ethylbenzene	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Hexachlorobutadiene	ND	0.65	10	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Isopropylbenzene	ND	0.41	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
m,p-Xylene	ND	0.29	5.0	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Methyl t-Butyl Ether	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Methylene chloride	ND	0.70	10	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Naphthalene	ND	0.44	25	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
n-Butyl Benzene	ND	0.70	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
n-Hexane	ND	1.1	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
n-Propyl Benzene	ND	0.50	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
o-Xylene	ND	0.29	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
p-Isopropyltoluene	ND	0.43	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
sec-Butyl Benzene	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
<b>Styrene</b>	<b>0.35</b>	0.33	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	B, J, D
tert-Butylbenzene	ND	0.60	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
<b>Tetrachloroethene</b>	<b>120</b>	0.41	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	D, B
Tetrahydrofuran	ND	6.0	50	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Toluene	ND	0.27	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
<b>trans-1,2-Dichloroethene</b>	<b>2.5</b>	0.55	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	D
trans-1,3-Dichloropropene	ND	0.48	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
<b>Trichloroethene</b>	<b>9.4</b>	0.31	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	D
Trichlorofluoromethane	ND	0.65	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	



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**DUP-04**  
**A174103-15 (Water)**

Date Sampled  
 10/06/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710031**

Vinyl chloride	11	0.80	2.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	D
Xylenes, total	ND	0.58	7.5	ug/L	5	10/11/2017	10/11/2017 16:13	EPA 8260B	
Surrogate: Dibromofluoromethane			99.9 %	68.9-141		10/11/2017	10/11/2017 16:13	EPA 8260B	
Surrogate: Toluene-d8			97.4 %	73.3-114		10/11/2017	10/11/2017 16:13	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			98.9 %	72.2-114		10/11/2017	10/11/2017 16:13	EPA 8260B	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29793**

Total Dissolved Solids	890	8.7	20.0	mg/L	1	10/12/2017	10/12/2017 13:40	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29768**

Total Suspended Solids	ND	0.95	2.0	mg/L	1	10/11/2017	10/11/2017 12:37	SM 2540D	
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TRC Environmental Corporation, Inc.  
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Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**Polychlorinated Biphenyls by EPA Method 8082 - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710057 - EPA 3511**

**Blank (A710057-BLK1)**

Prepared: 10/16/2017 Analyzed: 10/17/2017 21:53

PCB-1016	ND	0.13	ug/L							
PCB-1221	ND	0.25	ug/L							
PCB-1232	ND	0.13	ug/L							
PCB-1242	ND	0.13	ug/L							
PCB-1248	ND	0.13	ug/L							
PCB-1254	ND	0.13	ug/L							
PCB-1260	ND	0.13	ug/L							
Total PCBs	ND	0.25	ug/L							
Surrogate: Decachlorobiphenyl	0.921		ug/L	0.7500		123	72.5-127			
Surrogate: Tetrachloro-meta-xylene	0.766		ug/L	0.7500		102	59.9-118			

**LCS (A710057-BS1)**

Prepared: 10/16/2017 Analyzed: 10/17/2017 21:28

PCB-1016	15.1	0.13	ug/L	12.50		121	70-130			
PCB-1260	16.2	0.13	ug/L	12.50		130	70-130			
Surrogate: Decachlorobiphenyl	0.950		ug/L	0.7500		127	72.5-127			
Surrogate: Tetrachloro-meta-xylene	0.818		ug/L	0.7500		109	59.9-118			

**Matrix Spike (A710057-MS1)**

Source: A174110-01

Prepared: 10/16/2017 Analyzed: 10/18/2017 06:36

PCB-1016	15.7	0.13	ug/L	12.50	ND	125	60-140			
PCB-1260	16.4	0.13	ug/L	12.50	ND	131	60-140			
Surrogate: Decachlorobiphenyl	0.968		ug/L	0.7500		129	72.5-127			S
Surrogate: Tetrachloro-meta-xylene	0.844		ug/L	0.7500		113	59.9-118			

**Matrix Spike Dup (A710057-MSD1)**

Source: A174110-01

Prepared: 10/16/2017 Analyzed: 10/18/2017 07:01

PCB-1016	15.2	0.13	ug/L	12.50	ND	122	60-140	2.72	20	
PCB-1260	15.9	0.13	ug/L	12.50	ND	127	60-140	3.09	20	
Surrogate: Decachlorobiphenyl	0.918		ug/L	0.7500		122	72.5-127			
Surrogate: Tetrachloro-meta-xylene	0.856		ug/L	0.7500		114	59.9-118			



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710031 - EPA 5030B**

**Blank (A710031-BLK1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 08:46

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,1-Trichloroethane	ND	0.50	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,2-Trichloroethane	ND	0.50	ug/L							
1,1,2-Trichlorotrifluoroethane	ND	0.50	ug/L							
1,1-Dichloroethane	ND	0.50	ug/L							
1,1-Dichloroethene	ND	0.50	ug/L							
1,1-Dichloropropene	ND	0.50	ug/L							
1,2,3-Trichlorobenzene	0.10	2.0	ug/L							J
1,2,3-Trichloropropane	ND	1.0	ug/L							
1,2,4-Trichlorobenzene	0.10	2.0	ug/L							J
1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L							
1,2-Dibromoethane (EDB)	ND	0.50	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	0.50	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	ug/L							
1,3-Dichlorobenzene	ND	0.50	ug/L							
1,3-Dichloropropane	ND	0.50	ug/L							
1,4-Dichlorobenzene	ND	0.50	ug/L							
2,2-Dichloropropane	ND	0.50	ug/L							
2-Butanone	ND	20	ug/L							
2-Chlorotoluene	ND	0.50	ug/L							
2-Hexanone	ND	20	ug/L							
4-Chlorotoluene	ND	0.50	ug/L							
4-Methyl-2-pentanone	ND	20	ug/L							
Acetone	ND	20	ug/L							
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	ug/L							
Bromochloromethane	ND	0.50	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	0.50	ug/L							
Bromomethane	ND	5.0	ug/L							
Carbon disulfide	ND	0.50	ug/L							
Carbon tetrachloride	ND	0.50	ug/L							
Chlorobenzene	ND	0.50	ug/L							
Chloroethane	ND	5.0	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	2.0	ug/L							
cis-1,2-Dichloroethene	ND	0.50	ug/L							
cis-1,3-Dichloropropene	ND	0.50	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	0.50	ug/L							



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710031 - EPA 5030B**

**Blank (A710031-BLK1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 08:46

Dichlorodifluoromethane	ND	0.50	ug/L							
Diisopropyl Ether	ND	0.50	ug/L							
Ethylbenzene	ND	0.50	ug/L							
Hexachlorobutadiene	ND	2.0	ug/L							
Isopropylbenzene	ND	0.50	ug/L							
m,p-Xylene	ND	1.0	ug/L							
Methyl t-Butyl Ether	ND	0.50	ug/L							
Methylene chloride	ND	2.0	ug/L							
Naphthalene	0.61	5.0	ug/L							J
n-Butyl Benzene	ND	0.50	ug/L							
n-Hexane	ND	0.50	ug/L							
n-Propyl Benzene	ND	0.50	ug/L							
o-Xylene	ND	0.50	ug/L							
p-Isopropyltoluene	ND	0.50	ug/L							
sec-Butyl Benzene	ND	0.50	ug/L							
Styrene	0.070	0.50	ug/L							J
tert-Butylbenzene	ND	0.50	ug/L							
Tetrachloroethene	0.16	0.50	ug/L							J
Tetrahydrofuran	ND	10	ug/L							
Toluene	ND	0.50	ug/L							
trans-1,2-Dichloroethene	ND	0.50	ug/L							
trans-1,3-Dichloropropene	ND	0.50	ug/L							
Trichloroethene	ND	0.50	ug/L							
Trichlorofluoromethane	ND	0.50	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, total	ND	1.5	ug/L							
<i>Surrogate: Dibromofluoromethane</i>	9.77		ug/L	10.00		97.7	68.9-141			
<i>Surrogate: Toluene-d8</i>	9.82		ug/L	10.00		98.2	73.3-114			
<i>Surrogate: 4-Bromofluorobenzene</i>	9.59		ug/L	10.00		95.9	72.2-114			

**LCS (A710031-BS1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 08:18

1,1,1,2-Tetrachloroethane	4.90	0.50	ug/L	5.000		98.0	75.8-136			
1,1,1-Trichloroethane	5.15	0.50	ug/L	5.000		103	66.1-164			
1,1,2,2-Tetrachloroethane	4.73	0.50	ug/L	5.000		94.6	61.8-138			
1,1,2-Trichloroethane	4.93	0.50	ug/L	5.000		98.6	76.7-127			
1,1,2-Trichlorotrifluoroethane	5.24	0.50	ug/L	5.000		105	55.6-199			
1,1-Dichloroethane	5.09	0.50	ug/L	5.000		102	69.1-153			
1,1-Dichloroethene	4.90	0.50	ug/L	5.000		98.0	51.2-180			
1,1-Dichloropropene	5.32	0.50	ug/L	5.000		106	77.3-125			
1,2,3-Trichlorobenzene	4.60	2.0	ug/L	5.000		92.0	74-122			B
1,2,3-Trichloropropane	4.79	1.0	ug/L	5.000		95.8	69.8-140			
1,2,4-Trichlorobenzene	4.66	2.0	ug/L	5.000		93.2	73.3-120			B
1,2,4-Trimethylbenzene	4.90	0.50	ug/L	5.000		98.0	86.6-121			
1,2-Dibromo-3-chloropropane	4.81	0.50	ug/L	5.000		96.2	42.9-137			



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710031 - EPA 5030B**

**LCS (A710031-BS1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 08:18

1,2-Dibromoethane (EDB)	4.96	0.50	ug/L	5.000		99.2	75.2-124			
1,2-Dichlorobenzene	4.77	0.50	ug/L	5.000		95.4	88.3-115			
1,2-Dichloroethane	5.23	0.50	ug/L	5.000		105	69.2-160			
1,2-Dichloropropane	4.99	0.50	ug/L	5.000		99.8	73.1-128			
1,3,5-Trimethylbenzene	4.91	0.50	ug/L	5.000		98.2	87.3-122			
1,3-Dichlorobenzene	4.68	0.50	ug/L	5.000		93.6	90.7-114			
1,3-Dichloropropane	4.84	0.50	ug/L	5.000		96.8	76.8-125			
1,4-Dichlorobenzene	4.66	0.50	ug/L	5.000		93.2	88.9-112			
2,2-Dichloropropane	4.91	0.50	ug/L	5.000		98.2	70.2-147			
2-Butanone	47.6	20	ug/L	50.00		95.3	39.5-160			
2-Chlorotoluene	4.86	0.50	ug/L	5.000		97.2	87.3-118			
2-Hexanone	48.4	20	ug/L	50.00		96.8	30.4-168			
4-Chlorotoluene	4.81	0.50	ug/L	5.000		96.2	87.6-120			
4-Methyl-2-pentanone	49.5	20	ug/L	50.00		99.1	38.8-166			
Acetone	50.2	20	ug/L	50.00		100	30.1-197			
Benzene	4.91	0.50	ug/L	5.000		98.2	68.2-135			
Bromobenzene	4.73	0.50	ug/L	5.000		94.6	84.4-112			
Bromochloromethane	4.96	0.50	ug/L	5.000		99.2	76.7-138			
Bromodichloromethane	5.05	0.50	ug/L	5.000		101	77.2-140			
Bromoform	4.94	0.50	ug/L	5.000		98.8	60-142			
Bromomethane	5.20	5.0	ug/L	5.000		104	52.3-196			
Carbon disulfide	5.11	0.50	ug/L	5.000		102	20.2-197			
Carbon tetrachloride	4.97	0.50	ug/L	5.000		99.4	61.2-157			
Chlorobenzene	4.80	0.50	ug/L	5.000		96.0	88.7-113			
Chloroethane	4.98	5.0	ug/L	5.000		99.6	43.1-196			J
Chloroform	4.92	0.50	ug/L	5.000		98.4	68.7-161			
Chloromethane	4.67	2.0	ug/L	5.000		93.4	37.7-187			
cis-1,2-Dichloroethene	4.84	0.50	ug/L	5.000		96.8	76.1-127			
cis-1,3-Dichloropropene	4.95	0.50	ug/L	5.000		99.0	65.5-122			
Dibromochloromethane	5.07	0.50	ug/L	5.000		101	74.8-135			
Dibromomethane	5.02	0.50	ug/L	5.000		100	75-140			
Dichlorodifluoromethane	5.06	0.50	ug/L	5.000		101	68.8-164			
Diisopropyl Ether	5.15	0.50	ug/L	5.000		103	62.1-134			
Ethylbenzene	4.97	0.50	ug/L	5.000		99.4	86-119			
Hexachlorobutadiene	4.88	2.0	ug/L	5.000		97.6	54.7-158			
Isopropylbenzene	5.09	0.50	ug/L	5.000		102	86.3-118			
m,p-Xylene	9.83	1.0	ug/L	10.00		98.3	87.1-118			
Methyl t-Butyl Ether	5.16	0.50	ug/L	5.000		103	58.1-138			
Methylene chloride	5.07	2.0	ug/L	5.000		101	63.5-153			
Naphthalene	4.91	5.0	ug/L	5.000		98.2	39.3-132			J, B
n-Butyl Benzene	4.85	0.50	ug/L	5.000		97.0	84.7-121			
n-Hexane	5.07	0.50	ug/L	5.000		101	49.5-147			
n-Propyl Benzene	4.80	0.50	ug/L	5.000		96.0	84.2-124			
o-Xylene	4.94	0.50	ug/L	5.000		98.8	82.8-114			



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Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710031 - EPA 5030B**

**LCS (A710031-BS1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 08:18

p-Isopropyltoluene	4.98	0.50	ug/L	5.000		99.6	88.1-116			
sec-Butyl Benzene	4.88	0.50	ug/L	5.000		97.6	85.3-121			
Styrene	4.72	0.50	ug/L	5.000		94.4	84.7-120			B
tert-Butylbenzene	4.87	0.50	ug/L	5.000		97.4	76.2-123			
Tetrachloroethene	4.78	0.50	ug/L	5.000		95.6	79.3-122			B
Tetrahydrofuran	24.3	10	ug/L	25.00		97.0	27.8-152			
Toluene	4.80	0.50	ug/L	5.000		96.0	82.7-117			
trans-1,2-Dichloroethene	5.05	0.50	ug/L	5.000		101	72.3-135			
trans-1,3-Dichloropropene	4.93	0.50	ug/L	5.000		98.6	72.5-122			
Trichloroethene	4.99	0.50	ug/L	5.000		99.8	77-126			
Trichlorofluoromethane	5.23	0.50	ug/L	5.000		105	56-195			
Vinyl chloride	5.06	0.50	ug/L	5.000		101	52.3-186			
<i>Surrogate: Dibromofluoromethane</i>	<i>4.91</i>		<i>ug/L</i>	<i>5.000</i>		<i>98.2</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>4.99</i>		<i>ug/L</i>	<i>5.000</i>		<i>99.8</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>4.95</i>		<i>ug/L</i>	<i>5.000</i>		<i>99.0</i>	<i>72.2-114</i>			

**Matrix Spike (A710031-MS1)**

Source: A174103-11

Prepared: 10/11/2017 Analyzed: 10/11/2017 16:41

1,1,1,2-Tetrachloroethane	5.02	0.50	ug/L	5.000	ND	100	77.8-137			
1,1,1-Trichloroethane	5.32	0.50	ug/L	5.000	ND	106	66.3-167			
1,1,2,2-Tetrachloroethane	4.84	0.50	ug/L	5.000	ND	96.8	61.3-138			
1,1,2-Trichloroethane	6.06	0.50	ug/L	5.000	ND	121	75.4-132			
1,1,2-Trichlorotrifluoroethane	5.32	0.50	ug/L	5.000	ND	106	57.7-198			
1,1-Dichloroethane	5.25	0.50	ug/L	5.000	ND	105	66.9-154			
1,1-Dichloroethene	5.28	0.50	ug/L	5.000	ND	106	50.1-187			
1,1-Dichloropropene	5.28	0.50	ug/L	5.000	ND	106	74.1-127			
1,2,3-Trichlorobenzene	4.65	2.0	ug/L	5.000	ND	93.0	75.4-122			B
1,2,3-Trichloropropane	4.93	1.0	ug/L	5.000	ND	98.6	68.4-141			
1,2,4-Trichlorobenzene	4.57	2.0	ug/L	5.000	0.0800	89.8	72.1-121			B
1,2,4-Trimethylbenzene	5.00	0.50	ug/L	5.000	ND	100	86.5-121			
1,2-Dibromo-3-chloropropane	4.70	0.50	ug/L	5.000	ND	94.0	49.9-130			
1,2-Dibromoethane (EDB)	4.86	0.50	ug/L	5.000	ND	97.2	74.4-124			
1,2-Dichlorobenzene	4.99	0.50	ug/L	5.000	0.110	97.6	88.5-114			
1,2-Dichloroethane	5.45	0.50	ug/L	5.000	ND	109	72.6-161			
1,2-Dichloropropane	5.00	0.50	ug/L	5.000	ND	100	84.7-119			
1,3,5-Trimethylbenzene	5.01	0.50	ug/L	5.000	ND	100	87.3-122			
1,3-Dichlorobenzene	4.80	0.50	ug/L	5.000	ND	96.0	90.1-115			
1,3-Dichloropropane	4.92	0.50	ug/L	5.000	ND	98.4	76.6-126			
1,4-Dichlorobenzene	4.73	0.50	ug/L	5.000	ND	94.6	87.6-113			
2,2-Dichloropropane	4.49	0.50	ug/L	5.000	ND	89.8	72.3-145			
2-Butanone	52.0	20	ug/L	50.00	ND	104	32.2-170			
2-Chlorotoluene	4.93	0.50	ug/L	5.000	ND	98.6	87.9-117			
2-Hexanone	47.7	20	ug/L	50.00	ND	95.4	30.2-168			
4-Chlorotoluene	4.97	0.50	ug/L	5.000	ND	99.4	87.5-120			
4-Methyl-2-pentanone	49.2	20	ug/L	50.00	ND	98.4	39.1-168			





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TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710031 - EPA 5030B**

<b>Matrix Spike (A710031-MS1)</b>	<b>Source: A174103-11</b>		<b>Prepared: 10/11/2017 Analyzed: 10/11/2017 16:41</b>							
Acetone	52.2	20	ug/L	50.00	ND	104	31.2-199			
Benzene	5.00	0.50	ug/L	5.000	ND	100	67.8-136			
Bromobenzene	4.90	0.50	ug/L	5.000	ND	98.0	84.5-111			
Bromochloromethane	5.07	0.50	ug/L	5.000	ND	101	80.9-134			
Bromodichloromethane	5.20	0.50	ug/L	5.000	ND	104	76.1-144			
Bromoform	4.85	0.50	ug/L	5.000	ND	97.0	60.2-142			
Bromomethane	5.36	5.0	ug/L	5.000	ND	107	50.3-198			
Carbon disulfide	5.13	0.50	ug/L	5.000	ND	103	35.6-196			
Carbon tetrachloride	5.05	0.50	ug/L	5.000	ND	101	69.7-152			
Chlorobenzene	4.89	0.50	ug/L	5.000	ND	97.8	89.3-113			
Chloroethane	5.35	5.0	ug/L	5.000	ND	107	50.2-198			
Chloroform	5.45	0.50	ug/L	5.000	0.500	99.0	66.2-164			
Chloromethane	6.80	2.0	ug/L	5.000	2.97	76.6	46.5-179			
cis-1,2-Dichloroethene	41.5	0.50	ug/L	5.000	37.7	75.6	67.5-137			
cis-1,3-Dichloropropene	4.84	0.50	ug/L	5.000	ND	96.8	63.3-123			
Dibromochloromethane	5.06	0.50	ug/L	5.000	ND	101	76-133			
Dibromomethane	5.04	0.50	ug/L	5.000	ND	101	78.2-139			
Dichlorodifluoromethane	5.35	0.50	ug/L	5.000	ND	107	70.6-150			
Diisopropyl Ether	5.23	0.50	ug/L	5.000	ND	105	57.3-137			
Ethylbenzene	4.97	0.50	ug/L	5.000	ND	99.4	87.3-118			
Hexachlorobutadiene	5.07	2.0	ug/L	5.000	ND	101	55.4-161			
Isopropylbenzene	5.17	0.50	ug/L	5.000	ND	103	89-115			
m,p-Xylene	9.99	1.0	ug/L	10.00	ND	99.9	88.4-117			
Methyl t-Butyl Ether	5.25	0.50	ug/L	5.000	ND	105	54.4-145			
Methylene chloride	5.15	2.0	ug/L	5.000	ND	103	59.2-154			
Naphthalene	4.56	5.0	ug/L	5.000	ND	91.2	43.3-129			J, B
n-Butyl Benzene	4.95	0.50	ug/L	5.000	ND	99.0	85.9-119			
n-Hexane	5.21	0.50	ug/L	5.000	ND	104	44.3-150			
n-Propyl Benzene	4.95	0.50	ug/L	5.000	ND	99.0	83.7-124			
o-Xylene	5.00	0.50	ug/L	5.000	ND	100	83.9-112			
p-Isopropyltoluene	5.03	0.50	ug/L	5.000	ND	101	89.6-114			
sec-Butyl Benzene	5.00	0.50	ug/L	5.000	ND	100	85.5-120			
Styrene	4.75	0.50	ug/L	5.000	ND	95.0	79.7-123			B
tert-Butylbenzene	5.07	0.50	ug/L	5.000	ND	101	78.6-120			
Tetrachloroethene	29.4	0.50	ug/L	5.000	23.9	110	78.8-123			B
Tetrahydrofuran	24.2	10	ug/L	25.00	ND	97.0	24.7-155			
Toluene	4.88	0.50	ug/L	5.000	ND	97.6	81-118			
trans-1,2-Dichloroethene	5.48	0.50	ug/L	5.000	0.490	99.8	65.3-141			
trans-1,3-Dichloropropene	4.80	0.50	ug/L	5.000	ND	96.0	73.7-120			
Trichloroethene	14.4	0.50	ug/L	5.000	9.36	101	77.1-123			
Trichlorofluoromethane	5.37	0.50	ug/L	5.000	ND	107	44.8-199			
Vinyl chloride	5.77	0.50	ug/L	5.000	0.850	98.4	49.8-180			
Surrogate: Dibromofluoromethane	5.05		ug/L	5.000		101	68.9-141			
Surrogate: Toluene-d8	5.01		ug/L	5.000		100	73.3-114			



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Project Number: 266431  
Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710031 - EPA 5030B**

**Matrix Spike (A710031-MS1)**      **Source: A174103-11**      Prepared: 10/11/2017      Analyzed: 10/11/2017 16:41

*Surrogate: 4-Bromofluorobenzene*      5.00      ug/L      5.000      100      72.2-114

**Matrix Spike Dup (A710031-MSD1)**      **Source: A174103-11**      Prepared: 10/11/2017      Analyzed: 10/11/2017 17:09

1,1,1,2-Tetrachloroethane	5.01	0.50	ug/L	5.000	ND	100	77.8-137	0.199	20	
1,1,1-Trichloroethane	5.34	0.50	ug/L	5.000	ND	107	66.3-167	0.375	20	
1,1,2,2-Tetrachloroethane	4.77	0.50	ug/L	5.000	ND	95.4	61.3-138	1.46	20	
1,1,2-Trichloroethane	5.98	0.50	ug/L	5.000	ND	120	75.4-132	1.33	20	
1,1,2-Trichlorotrifluoroethane	5.53	0.50	ug/L	5.000	ND	111	57.7-198	3.87	20	
1,1-Dichloroethane	5.38	0.50	ug/L	5.000	ND	108	66.9-154	2.45	20	
1,1-Dichloroethene	5.29	0.50	ug/L	5.000	ND	106	50.1-187	0.189	20	
1,1-Dichloropropene	5.39	0.50	ug/L	5.000	ND	108	74.1-127	2.06	20	
1,2,3-Trichlorobenzene	4.54	2.0	ug/L	5.000	ND	90.8	75.4-122	2.39	20	B
1,2,3-Trichloropropane	5.05	1.0	ug/L	5.000	ND	101	68.4-141	2.40	20	
1,2,4-Trichlorobenzene	4.56	2.0	ug/L	5.000	0.0800	89.6	72.1-121	0.223	20	B
1,2,4-Trimethylbenzene	4.91	0.50	ug/L	5.000	ND	98.2	86.5-121	1.82	20	
1,2-Dibromo-3-chloropropane	4.65	0.50	ug/L	5.000	ND	93.0	49.9-130	1.07	20	
1,2-Dibromoethane (EDB)	4.90	0.50	ug/L	5.000	ND	98.0	74.4-124	0.820	20	
1,2-Dichlorobenzene	4.98	0.50	ug/L	5.000	0.110	97.4	88.5-114	0.205	20	
1,2-Dichloroethane	5.41	0.50	ug/L	5.000	ND	108	72.6-161	0.737	20	
1,2-Dichloropropane	4.98	0.50	ug/L	5.000	ND	99.6	84.7-119	0.401	20	
1,3,5-Trimethylbenzene	4.88	0.50	ug/L	5.000	ND	97.6	87.3-122	2.63	20	
1,3-Dichlorobenzene	4.67	0.50	ug/L	5.000	ND	93.4	90.1-115	2.75	20	
1,3-Dichloropropane	4.99	0.50	ug/L	5.000	ND	99.8	76.6-126	1.41	20	
1,4-Dichlorobenzene	4.72	0.50	ug/L	5.000	ND	94.4	87.6-113	0.212	20	
2,2-Dichloropropane	4.66	0.50	ug/L	5.000	ND	93.2	72.3-145	3.72	20	
2-Butanone	53.0	20	ug/L	50.00	ND	106	32.2-170	1.85	20	
2-Chlorotoluene	4.89	0.50	ug/L	5.000	ND	97.8	87.9-117	0.815	20	
2-Hexanone	48.2	20	ug/L	50.00	ND	96.5	30.2-168	1.06	20	
4-Chlorotoluene	4.92	0.50	ug/L	5.000	ND	98.4	87.5-120	1.01	20	
4-Methyl-2-pentanone	50.2	20	ug/L	50.00	ND	100	39.1-168	2.13	20	
Acetone	59.0	20	ug/L	50.00	ND	118	31.2-199	12.4	20	
Benzene	5.03	0.50	ug/L	5.000	ND	101	67.8-136	0.598	20	
Bromobenzene	4.88	0.50	ug/L	5.000	ND	97.6	84.5-111	0.409	20	
Bromochloromethane	5.02	0.50	ug/L	5.000	ND	100	80.9-134	0.991	20	
Bromodichloromethane	5.26	0.50	ug/L	5.000	ND	105	76.1-144	1.15	20	
Bromoform	4.85	0.50	ug/L	5.000	ND	97.0	60.2-142	0.00	20	
Bromomethane	5.53	5.0	ug/L	5.000	ND	111	50.3-198	3.12	20	
Carbon disulfide	5.25	0.50	ug/L	5.000	ND	105	35.6-196	2.31	20	
Carbon tetrachloride	5.08	0.50	ug/L	5.000	ND	102	69.7-152	0.592	20	
Chlorobenzene	4.87	0.50	ug/L	5.000	ND	97.4	89.3-113	0.410	20	
Chloroethane	5.59	5.0	ug/L	5.000	ND	112	50.2-198	4.39	20	
Chloroform	5.52	0.50	ug/L	5.000	0.500	100	66.2-164	1.40	20	
Chloromethane	7.09	2.0	ug/L	5.000	2.97	82.4	46.5-179	7.30	20	
cis-1,2-Dichloroethene	40.5	0.50	ug/L	5.000	37.7	54.8	67.5-137	31.9	20	M, X



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Project Number: 266431  
Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710031 - EPA 5030B**

**Matrix Spike Dup (A710031-MSD1)**

Source: A174103-11

Prepared: 10/11/2017 Analyzed: 10/11/2017 17:09

cis-1,3-Dichloropropene	4.79	0.50	ug/L	5.000	ND	95.8	63.3-123	1.04	20	
Dibromochloromethane	4.97	0.50	ug/L	5.000	ND	99.4	76-133	1.79	20	
Dibromomethane	4.98	0.50	ug/L	5.000	ND	99.6	78.2-139	1.20	20	
Dichlorodifluoromethane	5.47	0.50	ug/L	5.000	ND	109	70.6-150	2.22	20	
Diisopropyl Ether	5.54	0.50	ug/L	5.000	ND	111	57.3-137	5.76	20	
Ethylbenzene	4.94	0.50	ug/L	5.000	ND	98.8	87.3-118	0.605	20	
Hexachlorobutadiene	4.92	2.0	ug/L	5.000	ND	98.4	55.4-161	3.00	20	
Isopropylbenzene	5.10	0.50	ug/L	5.000	ND	102	89-115	1.36	20	
m,p-Xylene	9.94	1.0	ug/L	10.00	ND	99.4	88.4-117	0.502	20	
Methyl t-Butyl Ether	5.51	0.50	ug/L	5.000	ND	110	54.4-145	4.83	20	
Methylene chloride	5.29	2.0	ug/L	5.000	ND	106	59.2-154	2.68	20	
Naphthalene	4.73	5.0	ug/L	5.000	ND	94.6	43.3-129	3.66	20	J, B
n-Butyl Benzene	4.86	0.50	ug/L	5.000	ND	97.2	85.9-119	1.83	20	
n-Hexane	5.37	0.50	ug/L	5.000	ND	107	44.3-150	3.02	20	
n-Propyl Benzene	4.79	0.50	ug/L	5.000	ND	95.8	83.7-124	3.29	20	
o-Xylene	5.01	0.50	ug/L	5.000	ND	100	83.9-112	0.200	20	
p-Isopropyltoluene	4.92	0.50	ug/L	5.000	ND	98.4	89.6-114	2.21	20	
sec-Butyl Benzene	4.89	0.50	ug/L	5.000	ND	97.8	85.5-120	2.22	20	
Styrene	4.67	0.50	ug/L	5.000	ND	93.4	79.7-123	1.70	20	B
tert-Butylbenzene	4.94	0.50	ug/L	5.000	ND	98.8	78.6-120	2.60	20	
Tetrachloroethene	28.0	0.50	ug/L	5.000	23.9	80.8	78.8-123	30.3	20	X, B
Tetrahydrofuran	26.1	10	ug/L	25.00	ND	104	24.7-155	7.27	20	
Toluene	4.72	0.50	ug/L	5.000	ND	94.4	81-118	3.33	20	
trans-1,2-Dichloroethene	5.70	0.50	ug/L	5.000	0.490	104	65.3-141	4.31	20	
trans-1,3-Dichloropropene	4.82	0.50	ug/L	5.000	ND	96.4	73.7-120	0.416	20	
Trichloroethene	13.9	0.50	ug/L	5.000	9.36	89.8	77.1-123	11.9	20	
Trichlorofluoromethane	5.50	0.50	ug/L	5.000	ND	110	44.8-199	2.39	20	
Vinyl chloride	6.18	0.50	ug/L	5.000	0.850	107	49.8-180	8.00	20	
Surrogate: Dibromofluoromethane	5.11		ug/L	5.000		102	68.9-141			
Surrogate: Toluene-d8	5.00		ug/L	5.000		100	73.3-114			
Surrogate: 4-Bromofluorobenzene	4.99		ug/L	5.000		99.8	72.2-114			



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710035 - EPA 5030B**

**Blank (A710035-BLK1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 18:33

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,1-Trichloroethane	ND	0.50	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,2-Trichloroethane	ND	0.50	ug/L							
1,1,2-Trichlorotrifluoroethane	ND	0.50	ug/L							
1,1-Dichloroethane	ND	0.50	ug/L							
1,1-Dichloroethene	ND	0.50	ug/L							
1,1-Dichloropropene	ND	0.50	ug/L							
1,2,3-Trichlorobenzene	ND	2.0	ug/L							
1,2,3-Trichloropropane	ND	1.0	ug/L							
1,2,4-Trichlorobenzene	ND	2.0	ug/L							
1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L							
1,2-Dibromoethane (EDB)	ND	0.50	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	0.50	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	ug/L							
1,3-Dichlorobenzene	ND	0.50	ug/L							
1,3-Dichloropropane	ND	0.50	ug/L							
1,4-Dichlorobenzene	ND	0.50	ug/L							
2,2-Dichloropropane	ND	0.50	ug/L							
2-Butanone	ND	20	ug/L							
2-Chlorotoluene	ND	0.50	ug/L							
2-Hexanone	ND	20	ug/L							
4-Chlorotoluene	ND	0.50	ug/L							
4-Methyl-2-pentanone	ND	20	ug/L							
Acetone	ND	20	ug/L							
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	ug/L							
Bromochloromethane	ND	0.50	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	0.50	ug/L							
Bromomethane	ND	5.0	ug/L							
Carbon disulfide	ND	0.50	ug/L							
Carbon tetrachloride	ND	0.50	ug/L							
Chlorobenzene	ND	0.50	ug/L							
Chloroethane	ND	5.0	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	2.0	ug/L							
cis-1,2-Dichloroethene	ND	0.50	ug/L							
cis-1,3-Dichloropropene	ND	0.50	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	0.50	ug/L							



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710035 - EPA 5030B**

**Blank (A710035-BLK1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 18:33

Dichlorodifluoromethane	ND	0.50	ug/L							
Diisopropyl Ether	ND	0.50	ug/L							
Ethylbenzene	ND	0.50	ug/L							
Hexachlorobutadiene	ND	2.0	ug/L							
Isopropylbenzene	ND	0.50	ug/L							
m,p-Xylene	ND	1.0	ug/L							
Methyl t-Butyl Ether	ND	0.50	ug/L							
Methylene chloride	ND	2.0	ug/L							
Naphthalene	0.11	5.0	ug/L							J
n-Butyl Benzene	ND	0.50	ug/L							
n-Hexane	ND	0.50	ug/L							
n-Propyl Benzene	ND	0.50	ug/L							
o-Xylene	ND	0.50	ug/L							
p-Isopropyltoluene	ND	0.50	ug/L							
sec-Butyl Benzene	ND	0.50	ug/L							
Styrene	ND	0.50	ug/L							
tert-Butylbenzene	ND	0.50	ug/L							
Tetrachloroethene	0.17	0.50	ug/L							J
Tetrahydrofuran	ND	10	ug/L							
Toluene	ND	0.50	ug/L							
trans-1,2-Dichloroethene	ND	0.50	ug/L							
trans-1,3-Dichloropropene	ND	0.50	ug/L							
Trichloroethene	ND	0.50	ug/L							
Trichlorofluoromethane	ND	0.50	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, total	ND	1.5	ug/L							
<i>Surrogate: Dibromofluoromethane</i>	<i>10.5</i>		<i>ug/L</i>	<i>10.00</i>		<i>105</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>10.0</i>		<i>ug/L</i>	<i>10.00</i>		<i>100</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>9.72</i>		<i>ug/L</i>	<i>10.00</i>		<i>97.2</i>	<i>72.2-114</i>			

**LCS (A710035-BS1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 22:45

1,1,1,2-Tetrachloroethane	5.15	0.50	ug/L	5.000		103	75.8-136			
1,1,1-Trichloroethane	5.54	0.50	ug/L	5.000		111	66.1-164			
1,1,2,2-Tetrachloroethane	4.93	0.50	ug/L	5.000		98.6	61.8-138			
1,1,2-Trichloroethane	5.10	0.50	ug/L	5.000		102	76.7-127			
1,1,2-Trichlorotrifluoroethane	5.62	0.50	ug/L	5.000		112	55.6-199			
1,1-Dichloroethane	5.59	0.50	ug/L	5.000		112	69.1-153			
1,1-Dichloroethene	5.38	0.50	ug/L	5.000		108	51.2-180			
1,1-Dichloropropene	5.64	0.50	ug/L	5.000		113	77.3-125			
1,2,3-Trichlorobenzene	4.51	2.0	ug/L	5.000		90.2	74-122			
1,2,3-Trichloropropane	4.91	1.0	ug/L	5.000		98.2	69.8-140			
1,2,4-Trichlorobenzene	4.42	2.0	ug/L	5.000		88.4	73.3-120			
1,2,4-Trimethylbenzene	4.94	0.50	ug/L	5.000		98.8	86.6-121			
1,2-Dibromo-3-chloropropane	4.56	0.50	ug/L	5.000		91.2	42.9-137			



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TRC Environmental Corporation, Inc.  
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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710035 - EPA 5030B**

**LCS (A710035-BS1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 22:45

1,2-Dibromoethane (EDB)	4.95	0.50	ug/L	5.000		99.0	75.2-124			
1,2-Dichlorobenzene	4.87	0.50	ug/L	5.000		97.4	88.3-115			
1,2-Dichloroethane	5.75	0.50	ug/L	5.000		115	69.2-160			
1,2-Dichloropropane	5.09	0.50	ug/L	5.000		102	73.1-128			
1,3,5-Trimethylbenzene	4.97	0.50	ug/L	5.000		99.4	87.3-122			
1,3-Dichlorobenzene	4.76	0.50	ug/L	5.000		95.2	90.7-114			
1,3-Dichloropropane	5.02	0.50	ug/L	5.000		100	76.8-125			
1,4-Dichlorobenzene	4.67	0.50	ug/L	5.000		93.4	88.9-112			
2,2-Dichloropropane	4.65	0.50	ug/L	5.000		93.0	70.2-147			
2-Butanone	49.7	20	ug/L	50.00		99.4	39.5-160			
2-Chlorotoluene	4.89	0.50	ug/L	5.000		97.8	87.3-118			
2-Hexanone	48.0	20	ug/L	50.00		96.1	30.4-168			
4-Chlorotoluene	4.87	0.50	ug/L	5.000		97.4	87.6-120			
4-Methyl-2-pentanone	50.1	20	ug/L	50.00		100	38.8-166			
Acetone	53.4	20	ug/L	50.00		107	30.1-197			
Benzene	5.16	0.50	ug/L	5.000		103	68.2-135			
Bromobenzene	4.79	0.50	ug/L	5.000		95.8	84.4-112			
Bromochloromethane	5.22	0.50	ug/L	5.000		104	76.7-138			
Bromodichloromethane	5.29	0.50	ug/L	5.000		106	77.2-140			
Bromoform	4.98	0.50	ug/L	5.000		99.6	60-142			
Bromomethane	5.63	5.0	ug/L	5.000		113	52.3-196			
Carbon disulfide	5.30	0.50	ug/L	5.000		106	20.2-197			
Carbon tetrachloride	5.36	0.50	ug/L	5.000		107	61.2-157			
Chlorobenzene	4.96	0.50	ug/L	5.000		99.2	88.7-113			
Chloroethane	5.46	5.0	ug/L	5.000		109	43.1-196			
Chloroform	5.29	0.50	ug/L	5.000		106	68.7-161			
Chloromethane	4.98	2.0	ug/L	5.000		99.6	37.7-187			
cis-1,2-Dichloroethene	5.19	0.50	ug/L	5.000		104	76.1-127			
cis-1,3-Dichloropropene	4.81	0.50	ug/L	5.000		96.2	65.5-122			
Dibromochloromethane	5.12	0.50	ug/L	5.000		102	74.8-135			
Dibromomethane	5.07	0.50	ug/L	5.000		101	75-140			
Dichlorodifluoromethane	5.17	0.50	ug/L	5.000		103	68.8-164			
Diisopropyl Ether	5.63	0.50	ug/L	5.000		113	62.1-134			
Ethylbenzene	5.09	0.50	ug/L	5.000		102	86-119			
Hexachlorobutadiene	4.85	2.0	ug/L	5.000		97.0	54.7-158			
Isopropylbenzene	5.10	0.50	ug/L	5.000		102	86.3-118			
m,p-Xylene	9.94	1.0	ug/L	10.00		99.4	87.1-118			
Methyl t-Butyl Ether	5.60	0.50	ug/L	5.000		112	58.1-138			
Methylene chloride	5.53	2.0	ug/L	5.000		111	63.5-153			
Naphthalene	4.61	5.0	ug/L	5.000		92.2	39.3-132			J, B
n-Butyl Benzene	4.68	0.50	ug/L	5.000		93.6	84.7-121			
n-Hexane	5.41	0.50	ug/L	5.000		108	49.5-147			
n-Propyl Benzene	4.80	0.50	ug/L	5.000		96.0	84.2-124			
o-Xylene	4.91	0.50	ug/L	5.000		98.2	82.8-114			



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710035 - EPA 5030B**

<b>LCS (A710035-BS1)</b>		Prepared: 10/11/2017 Analyzed: 10/11/2017 22:45								
p-Isopropyltoluene	4.91	0.50	ug/L	5.000		98.2	88.1-116			
sec-Butyl Benzene	4.93	0.50	ug/L	5.000		98.6	85.3-121			
Styrene	4.70	0.50	ug/L	5.000		94.0	84.7-120			
tert-Butylbenzene	4.98	0.50	ug/L	5.000		99.6	76.2-123			
Tetrachloroethene	4.84	0.50	ug/L	5.000		96.8	79.3-122			B
Tetrahydrofuran	25.6	10	ug/L	25.00		102	27.8-152			
Toluene	4.83	0.50	ug/L	5.000		96.6	82.7-117			
trans-1,2-Dichloroethene	5.38	0.50	ug/L	5.000		108	72.3-135			
trans-1,3-Dichloropropene	4.82	0.50	ug/L	5.000		96.4	72.5-122			
Trichloroethene	5.13	0.50	ug/L	5.000		103	77-126			
Trichlorofluoromethane	5.61	0.50	ug/L	5.000		112	56-195			
Vinyl chloride	5.34	0.50	ug/L	5.000		107	52.3-186			
<i>Surrogate: Dibromofluoromethane</i>	<i>5.34</i>		<i>ug/L</i>	<i>5.000</i>		<i>107</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>5.02</i>		<i>ug/L</i>	<i>5.000</i>		<i>100</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>4.93</i>		<i>ug/L</i>	<i>5.000</i>		<i>98.6</i>	<i>72.2-114</i>			

<b>Matrix Spike (A710035-MS1)</b>		Source: A174103-08 Prepared: 10/11/2017 Analyzed: 10/12/2017 00:36								
1,1,1,2-Tetrachloroethane	25.0	2.5	ug/L	25.00	ND	99.8	77.8-137			
1,1,1-Trichloroethane	28.0	2.5	ug/L	25.00	ND	112	66.3-167			
1,1,2,2-Tetrachloroethane	26.3	2.5	ug/L	25.00	ND	105	61.3-138			
1,1,2-Trichloroethane	30.8	2.5	ug/L	25.00	ND	123	75.4-132			
1,1,2-Trichlorotrifluoroethane	28.9	2.5	ug/L	25.00	ND	115	57.7-198			
1,1-Dichloroethane	29.2	2.5	ug/L	25.00	ND	117	66.9-154			
1,1-Dichloroethene	27.8	2.5	ug/L	25.00	ND	111	50.1-187			
1,1-Dichloropropene	28.0	2.5	ug/L	25.00	ND	112	74.1-127			
1,2,3-Trichlorobenzene	23.0	10	ug/L	25.00	ND	92.0	75.4-122			
1,2,3-Trichloropropane	27.9	5.0	ug/L	25.00	ND	111	68.4-141			
1,2,4-Trichlorobenzene	21.5	10	ug/L	25.00	ND	86.0	72.1-121			
1,2,4-Trimethylbenzene	24.8	2.5	ug/L	25.00	ND	99.2	86.5-121			
1,2-Dibromo-3-chloropropane	26.2	2.5	ug/L	25.00	ND	105	49.9-130			
1,2-Dibromoethane (EDB)	25.8	2.5	ug/L	25.00	ND	103	74.4-124			
1,2-Dichlorobenzene	24.9	2.5	ug/L	25.00	ND	99.4	88.5-114			
1,2-Dichloroethane	30.2	2.5	ug/L	25.00	ND	121	72.6-161			
1,2-Dichloropropane	24.6	2.5	ug/L	25.00	ND	98.4	84.7-119			
1,3,5-Trimethylbenzene	25.2	2.5	ug/L	25.00	ND	101	87.3-122			
1,3-Dichlorobenzene	23.5	2.5	ug/L	25.00	ND	94.0	90.1-115			
1,3-Dichloropropane	25.7	2.5	ug/L	25.00	ND	103	76.6-126			
1,4-Dichlorobenzene	23.4	2.5	ug/L	25.00	ND	93.4	87.6-113			
2,2-Dichloropropane	23.5	2.5	ug/L	25.00	ND	93.8	72.3-145			
2-Butanone	274	100	ug/L	250.0	ND	110	32.2-170			
2-Chlorotoluene	25.2	2.5	ug/L	25.00	ND	101	87.9-117			
2-Hexanone	259	100	ug/L	250.0	ND	103	30.2-168			
4-Chlorotoluene	24.8	2.5	ug/L	25.00	ND	99.0	87.5-120			
4-Methyl-2-pentanone	271	100	ug/L	250.0	ND	109	39.1-168			



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710035 - EPA 5030B**

<b>Matrix Spike (A710035-MS1)</b>	<b>Source: A174103-08</b>		<b>Prepared: 10/11/2017 Analyzed: 10/12/2017 00:36</b>							
Acetone	307	100	ug/L	250.0	ND	123	31.2-199			
Benzene	26.1	2.5	ug/L	25.00	ND	104	67.8-136			
Bromobenzene	25.1	2.5	ug/L	25.00	ND	100	84.5-111			
Bromochloromethane	27.7	2.5	ug/L	25.00	ND	111	80.9-134			
Bromodichloromethane	26.2	2.5	ug/L	25.00	ND	105	76.1-144			
Bromoform	25.4	2.5	ug/L	25.00	ND	101	60.2-142			
Bromomethane	28.7	25	ug/L	25.00	ND	115	50.3-198			
Carbon disulfide	27.2	2.5	ug/L	25.00	ND	109	35.6-196			
Carbon tetrachloride	27.1	2.5	ug/L	25.00	ND	108	69.7-152			
Chlorobenzene	24.2	2.5	ug/L	25.00	ND	96.8	89.3-113			
Chloroethane	28.9	25	ug/L	25.00	ND	115	50.2-198			
Chloroform	26.5	2.5	ug/L	25.00	ND	106	66.2-164			
Chloromethane	27.0	10	ug/L	25.00	1.45	102	46.5-179			
cis-1,2-Dichloroethene	26.1	2.5	ug/L	25.00	ND	104	67.5-137			
cis-1,3-Dichloropropene	24.0	2.5	ug/L	25.00	ND	95.8	63.3-123			
Dibromochloromethane	25.8	2.5	ug/L	25.00	ND	103	76-133			
Dibromomethane	26.8	2.5	ug/L	25.00	ND	107	78.2-139			
Dichlorodifluoromethane	27.5	2.5	ug/L	25.00	ND	110	70.6-150			
Diisopropyl Ether	29.7	2.5	ug/L	25.00	ND	119	57.3-137			
Ethylbenzene	24.7	2.5	ug/L	25.00	ND	98.8	87.3-118			
Hexachlorobutadiene	24.8	10	ug/L	25.00	ND	99.2	55.4-161			
Isopropylbenzene	24.9	2.5	ug/L	25.00	ND	99.4	89-115			
m,p-Xylene	48.2	5.0	ug/L	50.00	ND	96.4	88.4-117			
Methyl t-Butyl Ether	29.8	2.5	ug/L	25.00	ND	119	54.4-145			
Methylene chloride	28.9	10	ug/L	25.00	ND	115	59.2-154			
Naphthalene	24.5	25	ug/L	25.00	ND	97.8	43.3-129			J, B
n-Butyl Benzene	23.3	2.5	ug/L	25.00	ND	93.0	85.9-119			
n-Hexane	28.5	2.5	ug/L	25.00	ND	114	44.3-150			
n-Propyl Benzene	24.3	2.5	ug/L	25.00	ND	97.0	83.7-124			
o-Xylene	24.2	2.5	ug/L	25.00	ND	96.8	83.9-112			
p-Isopropyltoluene	24.8	2.5	ug/L	25.00	ND	99.2	89.6-114			
sec-Butyl Benzene	25.1	2.5	ug/L	25.00	ND	100	85.5-120			
Styrene	23.2	2.5	ug/L	25.00	0.450	90.8	79.7-123			
tert-Butylbenzene	25.5	2.5	ug/L	25.00	ND	102	78.6-120			
Tetrachloroethene	146	2.5	ug/L	25.00	128	70.6	78.8-123			M, B
Tetrahydrofuran	138	50	ug/L	125.0	ND	110	24.7-155			
Toluene	23.5	2.5	ug/L	25.00	ND	93.8	81-118			
trans-1,2-Dichloroethene	27.8	2.5	ug/L	25.00	ND	111	65.3-141			
trans-1,3-Dichloropropene	23.6	2.5	ug/L	25.00	ND	94.4	73.7-120			
Trichloroethene	24.9	2.5	ug/L	25.00	ND	99.6	77.1-123			
Trichlorofluoromethane	29.7	2.5	ug/L	25.00	ND	119	44.8-199			
Vinyl chloride	28.5	2.5	ug/L	25.00	ND	114	49.8-180			
Surrogate: Dibromofluoromethane	28.0		ug/L	25.00		112	68.9-141			
Surrogate: Toluene-d8	24.9		ug/L	25.00		99.4	73.3-114			





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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710035 - EPA 5030B**

**Matrix Spike (A710035-MS1)** Source: A174103-08 Prepared: 10/11/2017 Analyzed: 10/12/2017 00:36

Surrogate: 4-Bromofluorobenzene 24.3 ug/L 25.00 97.2 72.2-114

**Matrix Spike Dup (A710035-MSD1)** Source: A174103-08 Prepared: 10/11/2017 Analyzed: 10/12/2017 01:04

1,1,1,2-Tetrachloroethane	25.7	2.5	ug/L	25.00	ND	103	77.8-137	2.96	20	
1,1,1-Trichloroethane	28.0	2.5	ug/L	25.00	ND	112	66.3-167	0.179	20	
1,1,2,2-Tetrachloroethane	27.5	2.5	ug/L	25.00	ND	110	61.3-138	4.65	20	
1,1,2-Trichloroethane	31.9	2.5	ug/L	25.00	ND	128	75.4-132	3.67	20	
1,1,2-Trichlorotrifluoroethane	29.4	2.5	ug/L	25.00	ND	117	57.7-198	1.72	20	
1,1-Dichloroethane	29.1	2.5	ug/L	25.00	ND	116	66.9-154	0.172	20	
1,1-Dichloroethene	28.2	2.5	ug/L	25.00	ND	113	50.1-187	1.43	20	
1,1-Dichloropropene	28.6	2.5	ug/L	25.00	ND	114	74.1-127	1.95	20	
1,2,3-Trichlorobenzene	24.1	10	ug/L	25.00	ND	96.2	75.4-122	4.46	20	
1,2,3-Trichloropropane	29.5	5.0	ug/L	25.00	ND	118	68.4-141	5.58	20	
1,2,4-Trichlorobenzene	22.8	10	ug/L	25.00	ND	91.0	72.1-121	5.65	20	
1,2,4-Trimethylbenzene	24.9	2.5	ug/L	25.00	ND	99.4	86.5-121	0.201	20	
1,2-Dibromo-3-chloropropane	27.3	2.5	ug/L	25.00	ND	109	49.9-130	4.12	20	
1,2-Dibromoethane (EDB)	27.5	2.5	ug/L	25.00	ND	110	74.4-124	6.39	20	
1,2-Dichlorobenzene	25.3	2.5	ug/L	25.00	ND	101	88.5-114	1.60	20	
1,2-Dichloroethane	31.3	2.5	ug/L	25.00	ND	125	72.6-161	3.58	20	
1,2-Dichloropropane	25.8	2.5	ug/L	25.00	ND	103	84.7-119	4.57	20	
1,3,5-Trimethylbenzene	24.9	2.5	ug/L	25.00	ND	99.6	87.3-122	0.999	20	
1,3-Dichlorobenzene	24.2	2.5	ug/L	25.00	ND	96.6	90.1-115	2.73	20	
1,3-Dichloropropane	27.1	2.5	ug/L	25.00	ND	108	76.6-126	5.50	20	
1,4-Dichlorobenzene	23.9	2.5	ug/L	25.00	ND	95.6	87.6-113	2.33	20	
2,2-Dichloropropane	23.9	2.5	ug/L	25.00	ND	95.4	72.3-145	1.69	20	
2-Butanone	307	100	ug/L	250.0	ND	123	32.2-170	11.6	20	
2-Chlorotoluene	24.9	2.5	ug/L	25.00	ND	99.4	87.9-117	1.40	20	
2-Hexanone	291	100	ug/L	250.0	ND	117	30.2-168	11.9	20	
4-Chlorotoluene	23.8	2.5	ug/L	25.00	ND	95.2	87.5-120	3.91	20	
4-Methyl-2-pentanone	302	100	ug/L	250.0	ND	121	39.1-168	10.7	20	
Acetone	346	100	ug/L	250.0	ND	138	31.2-199	12.1	20	
Benzene	25.9	2.5	ug/L	25.00	ND	104	67.8-136	0.769	20	
Bromobenzene	25.2	2.5	ug/L	25.00	ND	101	84.5-111	0.199	20	
Bromochloromethane	27.7	2.5	ug/L	25.00	ND	111	80.9-134	0.00	20	
Bromodichloromethane	27.4	2.5	ug/L	25.00	ND	109	76.1-144	4.30	20	
Bromoform	27.0	2.5	ug/L	25.00	ND	108	60.2-142	6.30	20	
Bromomethane	29.7	2.5	ug/L	25.00	ND	119	50.3-198	3.26	20	
Carbon disulfide	27.4	2.5	ug/L	25.00	ND	110	35.6-196	0.733	20	
Carbon tetrachloride	26.7	2.5	ug/L	25.00	ND	107	69.7-152	1.49	20	
Chlorobenzene	24.7	2.5	ug/L	25.00	ND	98.6	89.3-113	1.84	20	
Chloroethane	28.9	2.5	ug/L	25.00	ND	115	50.2-198	0.00	20	
Chloroform	27.3	2.5	ug/L	25.00	ND	109	66.2-164	3.16	20	
Chloromethane	26.5	10	ug/L	25.00	1.45	100	46.5-179	1.98	20	
cis-1,2-Dichloroethene	26.0	2.5	ug/L	25.00	ND	104	67.5-137	0.385	20	



2525 Advance Road  
 Madison, WI 53718  
 608.221.8700 Phone  
 608.221.4889 Fax

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch A710035 - EPA 5030B**

**Matrix Spike Dup (A710035-MSD1)**

**Source: A174103-08**

Prepared: 10/11/2017 Analyzed: 10/12/2017 01:04

cis-1,3-Dichloropropene	24.9	2.5	ug/L	25.00	ND	99.6	63.3-123	3.89	20	
Dibromochloromethane	27.5	2.5	ug/L	25.00	ND	110	76-133	6.39	20	
Dibromomethane	27.6	2.5	ug/L	25.00	ND	110	78.2-139	2.95	20	
Dichlorodifluoromethane	27.7	2.5	ug/L	25.00	ND	111	70.6-150	0.726	20	
Diisopropyl Ether	29.9	2.5	ug/L	25.00	ND	119	57.3-137	0.672	20	
Ethylbenzene	24.9	2.5	ug/L	25.00	ND	99.6	87.3-118	0.806	20	
Hexachlorobutadiene	24.3	10	ug/L	25.00	ND	97.2	55.4-161	2.04	20	
Isopropylbenzene	25.9	2.5	ug/L	25.00	ND	103	89-115	3.94	20	
m,p-Xylene	49.6	5.0	ug/L	50.00	ND	99.1	88.4-117	2.76	20	
Methyl t-Butyl Ether	31.7	2.5	ug/L	25.00	ND	127	54.4-145	6.02	20	
Methylene chloride	29.1	10	ug/L	25.00	ND	116	59.2-154	0.863	20	
Naphthalene	28.0	25	ug/L	25.00	ND	112	43.3-129	13.4	20	B
n-Butyl Benzene	23.9	2.5	ug/L	25.00	ND	95.4	85.9-119	2.55	20	
n-Hexane	30.0	2.5	ug/L	25.00	ND	120	44.3-150	5.13	20	
n-Propyl Benzene	24.2	2.5	ug/L	25.00	ND	96.8	83.7-124	0.206	20	
o-Xylene	25.1	2.5	ug/L	25.00	ND	100	83.9-112	3.45	20	
p-Isopropyltoluene	24.8	2.5	ug/L	25.00	ND	99.0	89.6-114	0.202	20	
sec-Butyl Benzene	24.7	2.5	ug/L	25.00	ND	98.6	85.5-120	1.81	20	
Styrene	23.8	2.5	ug/L	25.00	0.450	93.4	79.7-123	2.82	20	
tert-Butylbenzene	25.0	2.5	ug/L	25.00	ND	99.8	78.6-120	2.18	20	
Tetrachloroethene	146	2.5	ug/L	25.00	128	70.4	78.8-123	0.284	20	M, B
Tetrahydrofuran	156	50	ug/L	125.0	ND	125	24.7-155	12.2	20	
Toluene	24.2	2.5	ug/L	25.00	ND	96.6	81-118	2.94	20	
trans-1,2-Dichloroethene	27.3	2.5	ug/L	25.00	ND	109	65.3-141	2.00	20	
trans-1,3-Dichloropropene	24.9	2.5	ug/L	25.00	ND	99.4	73.7-120	5.16	20	
Trichloroethene	26.6	2.5	ug/L	25.00	ND	106	77.1-123	6.41	20	
Trichlorofluoromethane	30.0	2.5	ug/L	25.00	ND	120	44.8-199	1.01	20	
Vinyl chloride	28.6	2.5	ug/L	25.00	ND	114	49.8-180	0.351	20	
Surrogate: Dibromofluoromethane	27.7		ug/L	25.00		111	68.9-141			
Surrogate: Toluene-d8	25.7		ug/L	25.00		103	73.3-114			
Surrogate: 4-Bromofluorobenzene	25.8		ug/L	25.00		103	72.2-114			



2525 Advance Road  
Madison, WI 53718  
608.221.8700 Phone  
608.221.4889 Fax

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

### Notes and Definitions

- X Precision for the matrix spike duplicate, laboratory control sample duplicate or lab duplicate was outside of control limits.
- S Surrogate recovery was outside of laboratory control limits due to an apparent matrix effect.
- M The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory control limits.
- Ja Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
- J Analyte was detected but is below the reporting limit. The concentration is estimated.
- D Data reported from a dilution
- B Analyte is also detected in the associated method blank.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.
- RPD Relative Percent Difference



**Pace Analytical - ECCS Division**  
 2525 Advance Road  
 Madison, WI 53718  
 608-221-8700 (phone)  
 608-221-4889 (fax)

# CHAIN OF CUSTODY

No. 8378

Page: of:

Project Number: 266431 Ph. 1 PO Number:				Lab Work Order #: <b>A174103</b>				Report To: <b>ANDREW STEHN</b>								
Project Name: <b>MKC OMTM</b>				Preservation Codes				Company: <b>TRC</b>								
Project Location (City, State): <b>Madison, WI</b>				Analyses Requested: <b>B A A A</b>				Address 1: <b>708 Heartland Trl. suite 3600</b>								
Turn Around (check one): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush				<table border="1" style="width:100%; text-align: center;"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Matrix</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Total # of Containers</td> <td>Vocs</td> <td>PCBS</td> <td>TSS</td> <td>TDS</td> </tr> </table>				Matrix	Total # of Containers	Vocs	PCBS	TSS	TDS	Address 2:		
Matrix	Total # of Containers	Vocs	PCBS					TSS	TDS							
If Rush, Report Due Date:				E-mail Address: <b>astehn@trcsolutions.com</b>			Invoice To:									
Sampled By (Print): <b>Wes Braga / Andrew Stehn</b>				Company: <b>Same as</b>			Address 1: <b>above</b>									
Sample Description				Collection		Comments			Lab ID	Lab Receipt Time						
				Date	Time											
MW-4D2		10/5/17	09:47	W	3	X			01							
MW-4S		10/5/17	09:57	W	4		X	X	X	02						
MW-4D		10/5/17	12:09	W	4		X	X	X	<b>HOLD - cancelled</b>	03					
MW-3D3		10/5/17	14:44	W	3	X				04						
MW-3D2		10/5/17	14:49	W	3	X				05						
MW-3S		10/5/17	15:52	W	3	X				06						
MW-3D		10/5/17	16:26	W	3	X				07						
MW-23D		10/6/17	10:46	W	21	X	X	X	X	<b>MS/MSD</b>	08					
MW-23S		10/6/17	13:09	W	7	X	X	X	X	<b>HOLD Kev 10/5/17</b>	09					
MW-22D		10/6/17	15:46	W	7	X	X	X	X		10					
<b>Preservation Codes</b> A=None B=HCL C=H <sub>2</sub> SO <sub>4</sub> D=HNO <sub>3</sub> E=EnCore F=Methanol G=NaOH O=Other (Indicate)		<b>Other Comments:</b>		Relinquished By: <i>[Signature]</i>		Date: 10/9/17	Time: 12:30	Received By: <i>[Signature]</i>		Date: 10-09-17	Time: 1230					
				Relinquished By:		Date:	Time:	Received By:		Date:	Time:					
<b>Matrix Codes</b> A=Air S=Soil W=Water O=Other				Custody Seal: <input checked="" type="checkbox"/> NA <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		Shipped Via: <b>Work In</b>		Receipt Temp: <b>3.8°C</b>		Thermometer #/ Exp. Date: <b>160142274 1/21/18</b>						
						Temp Blank: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N										



October 17, 2017

Jessica Esser  
Pace Analytical Madison  
2525 Advance Road  
Madison, WI 53718

RE: Project: A174103 MADISON KIPP CORP.  
Pace Project No.: 40158284

Dear Jessica Esser:

Enclosed are the analytical results for sample(s) received by the laboratory on October 10, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

---

### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40158284001	A174103-02	Water	10/05/17 09:57	10/10/17 09:55
40158284002	A174103-08	Water	10/06/17 10:46	10/10/17 09:55
40158284003	A174103-09	Water	10/06/17 13:09	10/10/17 09:55
40158284004	A174103-10	Water	10/06/17 15:46	10/10/17 09:55
40158284005	A174103-11	Water	10/06/17 15:20	10/10/17 09:55
40158284006	A174103-12	Water	10/06/17 00:00	10/10/17 09:55
40158284007	A174103-13	Water	10/06/17 00:00	10/10/17 09:55
40158284008	A174103-14	Water	10/06/17 00:00	10/10/17 09:55
40158284009	A174103-15	Water	10/06/17 00:00	10/10/17 09:55

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### SAMPLE ANALYTE COUNT

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40158284001	A174103-02	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158284002	A174103-08	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158284003	A174103-09	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158284004	A174103-10	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158284005	A174103-11	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158284006	A174103-12	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158284007	A174103-13	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158284008	A174103-14	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158284009	A174103-15	SM 2540C	TMK	1
		SM 2540D	JMN	1

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

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**Sample: A174103-02**      **Lab ID: 40158284001**      Collected: 10/05/17 09:57      Received: 10/10/17 09:55      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>3750</b>	mg/L	20.0	8.7	1		10/12/17 13:37		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>&lt;0.95</b>	mg/L	2.0	0.95	1		10/11/17 12:36		

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### ANALYTICAL RESULTS

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

---

**Sample: A174103-08**      **Lab ID: 40158284002**      Collected: 10/06/17 10:46      Received: 10/10/17 09:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>524</b>	mg/L	20.0	8.7	1		10/12/17 13:37		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>&lt;0.95</b>	mg/L	2.0	0.95	1		10/11/17 12:36		

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### ANALYTICAL RESULTS

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

---

**Sample: A174103-09**      **Lab ID: 40158284003**      Collected: 10/06/17 13:09      Received: 10/10/17 09:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>656</b>	mg/L	20.0	8.7	1		10/12/17 13:38		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>16.8</b>	mg/L	4.0	1.9	1		10/11/17 12:36		

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## ANALYTICAL RESULTS

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

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**Sample: A174103-10**      **Lab ID: 40158284004**      Collected: 10/06/17 15:46      Received: 10/10/17 09:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>892</b>	mg/L	20.0	8.7	1		10/12/17 13:39		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>&lt;0.95</b>	mg/L	2.0	0.95	1		10/11/17 12:36		

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### ANALYTICAL RESULTS

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

---

**Sample: A174103-11**      **Lab ID: 40158284005**      Collected: 10/06/17 15:20      Received: 10/10/17 09:55      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>830</b>	mg/L	20.0	8.7	1		10/12/17 13:39		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>1.2J</b>	mg/L	2.0	0.95	1		10/11/17 12:36		

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### ANALYTICAL RESULTS

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

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**Sample: A174103-12**      **Lab ID: 40158284006**      Collected: 10/06/17 00:00      Received: 10/10/17 09:55      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>534</b>	mg/L	20.0	8.7	1		10/12/17 13:39		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>&lt;0.95</b>	mg/L	2.0	0.95	1		10/11/17 12:36		

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### ANALYTICAL RESULTS

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

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**Sample: A174103-13**      **Lab ID: 40158284007**      Collected: 10/06/17 00:00      Received: 10/10/17 09:55      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>644</b>	mg/L	20.0	8.7	1		10/12/17 13:39		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>18.0</b>	mg/L	4.0	1.9	1		10/11/17 12:37		

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### ANALYTICAL RESULTS

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

**Sample: A174103-14**      **Lab ID: 40158284008**      Collected: 10/06/17 00:00      Received: 10/10/17 09:55      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>838</b>	mg/L	20.0	8.7	1		10/12/17 13:40		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>&lt;0.95</b>	mg/L	2.0	0.95	1		10/11/17 12:37		

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## ANALYTICAL RESULTS

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

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**Sample: A174103-15**      **Lab ID: 40158284009**      Collected: 10/06/17 00:00      Received: 10/10/17 09:55      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>890</b>	mg/L	20.0	8.7	1		10/12/17 13:40		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>&lt;0.95</b>	mg/L	2.0	0.95	1		10/11/17 12:37		

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: A174103 MADISON KIPP CORP.  
Pace Project No.: 40158284

---

QC Batch: 270414 Analysis Method: SM 2540C  
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids  
Associated Lab Samples: 40158284001, 40158284002, 40158284003, 40158284004, 40158284005, 40158284006, 40158284007, 40158284008, 40158284009

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METHOD BLANK: 1589179 Matrix: Water  
Associated Lab Samples: 40158284001, 40158284002, 40158284003, 40158284004, 40158284005, 40158284006, 40158284007, 40158284008, 40158284009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	10/12/17 13:36	

---

LABORATORY CONTROL SAMPLE: 1589180

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	553	562	102	80-120	

---

SAMPLE DUPLICATE: 1589181

Parameter	Units	40158284002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	524	518	1	5	

---

SAMPLE DUPLICATE: 1589182

Parameter	Units	40158284005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	830	868	4	5	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

**REPORT OF LABORATORY ANALYSIS**

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### QUALITY CONTROL DATA

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

QC Batch: 270209

Analysis Method: SM 2540D

QC Batch Method: SM 2540D

Analysis Description: 2540D Total Suspended Solids

Associated Lab Samples: 40158284001, 40158284002, 40158284003, 40158284004, 40158284005, 40158284006, 40158284007, 40158284008, 40158284009

METHOD BLANK: 1587809

Matrix: Water

Associated Lab Samples: 40158284001, 40158284002, 40158284003, 40158284004, 40158284005, 40158284006, 40158284007, 40158284008, 40158284009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	<0.48	1.0	10/11/17 12:34	

LABORATORY CONTROL SAMPLE: 1587810

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	104	104	80-120	

SAMPLE DUPLICATE: 1587817

Parameter	Units	40158284002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	<0.95	<0.95		5	

SAMPLE DUPLICATE: 1587818

Parameter	Units	40158284005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	1.2J	1.0J		5	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: A174103 MADISON KIPP CORP.

Pace Project No.: 40158284

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40158284001	A174103-02	SM 2540C	270414		
40158284002	A174103-08	SM 2540C	270414		
40158284003	A174103-09	SM 2540C	270414		
40158284004	A174103-10	SM 2540C	270414		
40158284005	A174103-11	SM 2540C	270414		
40158284006	A174103-12	SM 2540C	270414		
40158284007	A174103-13	SM 2540C	270414		
40158284008	A174103-14	SM 2540C	270414		
40158284009	A174103-15	SM 2540C	270414		
40158284001	A174103-02	SM 2540D	270209		
40158284002	A174103-08	SM 2540D	270209		
40158284003	A174103-09	SM 2540D	270209		
40158284004	A174103-10	SM 2540D	270209		
40158284005	A174103-11	SM 2540D	270209		
40158284006	A174103-12	SM 2540D	270209		
40158284007	A174103-13	SM 2540D	270209		
40158284008	A174103-14	SM 2540D	270209		
40158284009	A174103-15	SM 2540D	270209		

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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SUBCONTRACT ORDER

40188284

Pace Analytical - Madison

A174103

SENDING LABORATORY:

Pace Analytical - Madison
2525 Advance Road
Madison, WI 53718
Phone: 608.221.8700
Fax: 608,221,4889
Project Manager: Jessica Esser

RECEIVING LABORATORY:

Pace Analytical
1241 Bellevue Street, Suite 9
Green Bay, WI 54302
Phone :(920) 469-2436
Fax: (920) 469-8827

Turn around Time: X Normal

Rush

Project Name: Madison Kipp Corp. Semi-Annual Sampling

Table with 4 columns: Lab ID, Sample Type, Sampled Date/Time, Laboratory ID, and Comments. Contains entries 001, 002, 003, and 004 with handwritten notes and arrows.

Handwritten signatures and dates for 'Released By' and 'Received By' at the bottom of the page.

40188284



SUBCONTRACT ORDER

40158284

Pace Analytical - Madison

A174103

Lab ID	Sample	Sampled	Laboratory ID	Comments
005 Lab ID: A174103-11	Water	10/06/2017 15:20	3-250mlp <sup>A</sup>	3-1lp <sup>A</sup>
2540D - Suspended Solids Subcontracted Analysis - Pace Containers Supplied: 14_1000mL Plastic Cool t 14_1000mL Plastic Cool t 14_1000mL Plastic Cool t 14_250mL Plastic Cool to 14_250mL Plastic Cool to				
Dissolved Solids, Total				
006 Lab ID: A174103-12	Water	10/06/2017 00:00	1-250mlp <sup>A</sup>	1-1lp <sup>A</sup>
2540D - Suspended Solids Subcontracted Analysis - Pace Containers Supplied: 14_1000mL Plastic Cool t 14_250mL Plastic Cool to				
Dissolved Solids, Total				
007 Lab ID: A174103-13	Water	10/06/2017 00:00		
2540D - Suspended Solids Subcontracted Analysis - Pace Containers Supplied: 14_1000mL Plastic Cool t 14_250mL Plastic Cool to				
Dissolved Solids, Total				
008 Lab ID: A174103-14	Water	10/06/2017 00:00		
2540D - Suspended Solids Subcontracted Analysis - Pace Containers Supplied: 14_1000mL Plastic Cool t 14_250mL Plastic Cool to				
Dissolved Solids, Total				
009 Lab ID: A174103-15	Water	10/06/2017 00:00		
2540D - Suspended Solids Subcontracted Analysis - Pace Containers Supplied: 14_1000mL Plastic Cool t 14_250mL Plastic Cool to				
Dissolved Solids, Total				

~~010 Lab ID A174103 (1) 10/5/17 @ 0957 1-1lp<sup>A</sup> 10/10/17 SW~~

010 Lab ID A174103 (1) 10/5/17 @ 1209 1-250mlp<sup>A</sup>

Released By: Kari-Anne Gillin Date: 10/4/17 1500  
 Received By: Susan Tyler Date: 10/17/17 0955  
 Released By: Speedy Date: 10/17/17 0955  
 Received By: Pace Date: 10/17/17 0955

① In shipment La' Page 74 of 75 A174103 FINAL 10 19 2017 1535 7 SW

40158284



Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302



Client Name: Pace, Madison, WI Project # \_\_\_\_\_

WO#: **40158284**

Courier:  Fed Ex  UPS  Client  Pace Other: Spee Dee  
Tracking #: SP00742303 285173321



Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: N/A Type of Ice:  Wet  Blue  Dry  None  Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: ROT / Corr: \_\_\_\_\_ Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
Date: 10-10-17  
Initials: [Signature]

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<u>10/10/17</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>1 250ml pA - 010 - added to COC</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3. <u>10-10-17</u>
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	4. <u>Sub Work</u> <u>10-10-17</u>
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
-Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>W</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	initial when completed
		Lab Std #ID of preservative
		Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments   
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature] Date: 10/10/17



2525 Advance Road  
Madison, WI 53718  
608.221.8700 Phone  
608.221.4889 Fax

October 26, 2017

Andrew Stehn  
TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison, WI 53717  
RE: Madison Kipp Corp. Semi-Annual Sampling

Enclosed are revised analytical results for the samples received by the laboratory on 10/10/2017.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the 2009 NELAC Standards and the appropriate agencies listed below, unless otherwise noted in the case narrative. This analytical report should be reproduced in its entirety.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica Esser  
Project Manager

Certification List			Expires
ADEQ	Arkansas Department of Environmental Quality	17-065-0	09/26/2018
DODELAP	DOD ELAP Accreditation (A2LA)	3269.01	03/31/2018
ILEPA	Illinois Secondary NELAP Accreditation	003174	04/30/2018
KDHE	Kansas Secondary NELAP Accreditation	E-10384	04/30/2018
LELAP	Louisiana Primary NELAP Accreditation	04165	06/30/2018
NCDEQ	North Carolina Dept. of Environmental Quality Accr	688	12/31/2017
NJDEP	New Jersey Secondary NELAP Accreditation	WI004	06/30/2018
ODEQ	Oklahoma Department of Environmental Quality Ac	2017-154	08/31/2018
TCEQ	Texas Secondary NELAP Accreditation	T104704504-16-7	11/30/2017
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2018



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### Revised Report

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6S	A174110-01	Water	10/09/2017	10/10/2017
MW-6D	A174110-02	Water	10/09/2017	10/10/2017
MW-17	A174110-03	Water	10/09/2017	10/10/2017
MW-24	A174110-04	Water	10/09/2017	10/10/2017
MW-11S	A174110-05	Water	10/09/2017	10/10/2017
MW-28	A174110-06	Water	10/10/2017	10/10/2017
DUP-05	A174110-07	Water	10/09/2017	10/10/2017
FB-01	A174110-08	Water	10/09/2017	10/10/2017
Trip Blank	A174110-09	Water	10/09/2017	10/10/2017

#### CASE NARRATIVE

##### **Sample Receipt Information:**

9 samples were received on 10/10/2017. Samples were received at 2.1 degrees Celsius. Samples were received in acceptable condition with the exception of the label discrepancies noted below.

Four plastic containers labeled MW-28 were received. Containers were differentiated, using the time collected, into MW-24 and MW-28. Client was notified.

TSS and TDS analysis was subcontracted to Pace Analytical in Green Bay, WI. Please see their appended report for quality control results.

Please see the chain of custody (COC) document at the end of this report for additional information.

##### **Continuing Calibration Verification (CCV):**

CCV indicates a potential high bias for acetone for sample A174110-07. Sample was less than the reporting limit for this analyte so no further action is required.

#### REASON FOR REVISED REPORT

This report was revised to correct the detections and reporting limits for sample A174110-08 for the VOCs by method 8260 analysis. Due to an error in the preparation batch amount, all results and reporting limits for this sample were incorrectly elevated by a factor of 5. This report should replace "A174110 FINAL 10 19 2017 1702".



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Revised Report

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

MW-6S

Date Sampled

A174110-01 (Water)

10/09/2017 09:28

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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Pace Analytical - Madison

Polychlorinated Biphenyls by EPA Method 8082

Preparation Batch:A710057

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/18/2017 03:42	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/18/2017 03:42	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/18/2017 03:42	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/18/2017 03:42	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	10/16/2017	10/18/2017 03:42	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/18/2017 03:42	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/18/2017 03:42	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/18/2017 03:42	EPA 8082A	

Surrogate: Decachlorobiphenyl

116 % 72.5-127

10/16/2017 10/18/2017 03:42

EPA 8082A

Surrogate: Tetrachloro-meta-xylene

109 % 59.9-118

10/16/2017 10/18/2017 03:42

EPA 8082A

Volatile Organic Compounds by Method 8260 - Purge and Trap

Preparation Batch:A710036

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
<b>1,2,3-Trichlorobenzene</b>	<b>0.070</b>	0.045	2.0	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	B, J
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
<b>1,2,4-Trimethylbenzene</b>	<b>0.37</b>	0.060	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	J
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
<b>1,3,5-Trimethylbenzene</b>	<b>0.17</b>	0.075	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	J
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	



2525 Advance Road  
 Madison, WI 53718  
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 608.221.4889 Fax

**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-6S**

**A174110-01 (Water)**

**Date Sampled**  
 10/09/2017 09:28

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710036**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
<b>Benzene</b>	<b>0.71</b>	0.089	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
<b>Chloromethane</b>	<b>2.2</b>	0.16	2.0	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
<b>Ethylbenzene</b>	<b>0.79</b>	0.054	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
<b>Isopropylbenzene</b>	<b>0.53</b>	0.081	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
<b>m,p-Xylene</b>	<b>0.37</b>	0.057	1.0	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	J
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
<b>Naphthalene</b>	<b>0.69</b>	0.088	5.0	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	B, J
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
<b>n-Propyl Benzene</b>	<b>0.19</b>	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	J
<b>o-Xylene</b>	<b>0.11</b>	0.058	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	J
<b>p-Isopropyltoluene</b>	<b>0.16</b>	0.085	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	J
<b>sec-Butyl Benzene</b>	<b>0.13</b>	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	J
<b>Styrene</b>	<b>0.10</b>	0.065	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	B, J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Tetrachloroethene	ND	0.081	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
<b>Toluene</b>	<b>0.32</b>	0.053	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	B, J
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Trichloroethene	ND	0.062	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-6S**

**A174110-01 (Water)**

Date Sampled  
 10/09/2017 09:28

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710036**

Vinyl chloride	ND	0.16	0.50	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	
<b>Xylenes, total</b>	<b>0.48</b>	0.12	1.5	ug/L	1	10/11/2017	10/12/2017 01:33	EPA 8260B	J
<i>Surrogate: Dibromofluoromethane</i>			106 %	68.9-141		10/11/2017	10/12/2017 01:33	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			97.8 %	73.3-114		10/11/2017	10/12/2017 01:33	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			99.1 %	72.2-114		10/11/2017	10/12/2017 01:33	EPA 8260B	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29822**

<b>Total Dissolved Solids</b>	<b>3970</b>	8.7	20.0	mg/L	1	10/16/2017	10/16/2017 13:57	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29806**

<b>Total Suspended Solids</b>	<b>1.2</b>	0.95	2.0	mg/L	1	10/13/2017	10/13/2017 11:26	SM 2540D	Ja
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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-6D**  
**A174110-02 (Water)**

**Date Sampled**  
**10/09/2017 12:40**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

1,1,1,2-Tetrachloroethane	ND	5.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,1,1-Trichloroethane	ND	5.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	5.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,1,2-Trichloroethane	ND	5.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	6.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,1-Dichloroethane	ND	6.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,1-Dichloroethene	ND	7.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,1-Dichloropropene	ND	5.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,2,3-Trichlorobenzene	ND	2.3	100	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,2,3-Trichloropropane	ND	7.5	50	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,2,4-Trichlorobenzene	ND	3.9	100	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>1,2,4-Trimethylbenzene</b>	<b>170</b>	3.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	D
1,2-Dibromo-3-chloropropane	ND	13	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	6.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,2-Dichlorobenzene	ND	3.8	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,2-Dichloroethane	ND	3.9	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,2-Dichloropropane	ND	5.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,3,5-Trimethylbenzene	ND	3.8	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,3-Dichlorobenzene	ND	4.8	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,3-Dichloropropane	ND	5.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
1,4-Dichlorobenzene	ND	3.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
2,2-Dichloropropane	ND	7.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
2-Butanone	ND	150	1000	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
2-Chlorotoluene	ND	3.8	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
2-Hexanone	ND	48	1000	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
4-Chlorotoluene	ND	3.7	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
4-Methyl-2-pentanone	ND	39	1000	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Acetone	ND	170	1000	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>Benzene</b>	<b>2000</b>	4.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	D
Bromobenzene	ND	4.2	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Bromochloromethane	ND	16	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Bromodichloromethane	ND	3.9	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Bromoform	ND	4.4	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Bromomethane	ND	30	250	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Carbon disulfide	ND	2.7	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Carbon tetrachloride	ND	1.9	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Chlorobenzene	ND	3.7	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Chloroethane	ND	13	250	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Chloroform	ND	3.1	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>Chloromethane</b>	<b>19</b>	8.0	100	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	J, D



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**Revised Report**

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**MW-6D**

**A174110-02 (Water)**

Date Sampled  
10/09/2017 12:40

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

cis-1,2-Dichloroethene	ND	5.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
cis-1,3-Dichloropropene	ND	3.1	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Dibromochloromethane	ND	4.6	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Dibromomethane	ND	7.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Dichlorodifluoromethane	ND	5.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Diisopropyl Ether	ND	7.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>Ethylbenzene</b>	<b>36</b>	2.7	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	D
Hexachlorobutadiene	ND	6.5	100	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>Isopropylbenzene</b>	<b>33</b>	4.1	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	D
<b>m,p-Xylene</b>	<b>140</b>	2.9	50	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	D
Methyl t-Butyl Ether	ND	7.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Methylene chloride	ND	7.0	100	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>Naphthalene</b>	<b>140</b>	4.4	250	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	B, J, D
n-Butyl Benzene	ND	7.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
n-Hexane	ND	11	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>n-Propyl Benzene</b>	<b>28</b>	5.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	D
<b>o-Xylene</b>	<b>9.5</b>	2.9	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	J, D
p-Isopropyltoluene	ND	4.3	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
sec-Butyl Benzene	ND	6.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>Styrene</b>	<b>6.0</b>	3.3	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	J, D
tert-Butylbenzene	ND	6.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>Tetrachloroethene</b>	<b>9.0</b>	4.1	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	B, J, D
Tetrahydrofuran	ND	60	500	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>Toluene</b>	<b>140</b>	2.7	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	D
trans-1,2-Dichloroethene	ND	5.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
trans-1,3-Dichloropropene	ND	4.8	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>Trichloroethene</b>	<b>20</b>	3.1	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	J, D
Trichlorofluoromethane	ND	6.5	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
Vinyl chloride	ND	8.0	25	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	
<b>Xylenes, total</b>	<b>150</b>	5.8	75	ug/L	50	10/11/2017	10/12/2017 04:20	EPA 8260B	D
Surrogate: Dibromofluoromethane			104 %	68.9-141		10/11/2017	10/12/2017 04:20	EPA 8260B	
Surrogate: Toluene-d8			99.4 %	73.3-114		10/11/2017	10/12/2017 04:20	EPA 8260B	
Surrogate: 4-Bromofluorobenzene			97.6 %	72.2-114		10/11/2017	10/12/2017 04:20	EPA 8260B	





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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-17**  
**A174110-03 (Water)**

**Date Sampled**  
**10/09/2017 10:10**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

1,1,1,2-Tetrachloroethane	ND	2.8	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,1,1-Trichloroethane	ND	2.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	2.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,1,2-Trichloroethane	ND	2.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	3.3	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,1-Dichloroethane	ND	3.0	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,1-Dichloroethene	ND	3.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,1-Dichloropropene	ND	2.8	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,2,3-Trichlorobenzene	ND	1.1	50	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,2,3-Trichloropropane	ND	3.8	25	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,2,4-Trichlorobenzene	ND	1.9	50	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,2,4-Trimethylbenzene	ND	1.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	6.3	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	3.3	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,2-Dichlorobenzene	ND	1.9	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,2-Dichloroethane	ND	2.0	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,2-Dichloropropane	ND	2.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,3,5-Trimethylbenzene	ND	1.9	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,3-Dichlorobenzene	ND	2.4	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,3-Dichloropropane	ND	2.8	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
1,4-Dichlorobenzene	ND	1.8	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
2,2-Dichloropropane	ND	3.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
2-Butanone	ND	75	500	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
2-Chlorotoluene	ND	1.9	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
2-Hexanone	ND	24	500	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
4-Chlorotoluene	ND	1.8	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
4-Methyl-2-pentanone	ND	19	500	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Acetone	ND	85	500	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Benzene	ND	2.2	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Bromobenzene	ND	2.1	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Bromochloromethane	ND	7.8	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Bromodichloromethane	ND	1.9	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Bromoform	ND	2.2	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Bromomethane	ND	15	130	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Carbon disulfide	ND	1.3	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Carbon tetrachloride	ND	0.95	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Chlorobenzene	ND	1.8	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Chloroethane	ND	6.3	130	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
<b>Chloroform</b>	<b>4.5</b>	1.6	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	J, D
<b>Chloromethane</b>	<b>9.3</b>	4.0	50	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	J, D



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-17**  
**A174110-03 (Water)**

**Date Sampled**  
**10/09/2017 10:10**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

<b>cis-1,2-Dichloroethene</b>	<b>5.3</b>	2.8	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	J, D
cis-1,3-Dichloropropene	ND	1.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Dibromochloromethane	ND	2.3	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Dibromomethane	ND	3.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Dichlorodifluoromethane	ND	2.8	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Diisopropyl Ether	ND	3.8	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Ethylbenzene	ND	1.4	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Hexachlorobutadiene	ND	3.3	50	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Isopropylbenzene	ND	2.0	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
m,p-Xylene	ND	1.4	25	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Methyl t-Butyl Ether	ND	3.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Methylene chloride	ND	3.5	50	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
<b>Naphthalene</b>	<b>2.8</b>	2.2	130	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	B, J, D
n-Butyl Benzene	ND	3.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
n-Hexane	ND	5.3	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
n-Propyl Benzene	ND	2.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
o-Xylene	ND	1.5	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
p-Isopropyltoluene	ND	2.1	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
sec-Butyl Benzene	ND	3.3	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
<b>Styrene</b>	<b>1.8</b>	1.6	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	J, D
tert-Butylbenzene	ND	3.0	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
<b>Tetrachloroethene</b>	<b>790</b>	2.0	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	B, D
Tetrahydrofuran	ND	30	250	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Toluene	ND	1.3	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
trans-1,2-Dichloroethene	ND	2.8	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
trans-1,3-Dichloropropene	ND	2.4	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
<b>Trichloroethene</b>	<b>59</b>	1.6	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	D
Trichlorofluoromethane	ND	3.3	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Vinyl chloride	ND	4.0	13	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
Xylenes, total	ND	2.9	38	ug/L	25	10/11/2017	10/12/2017 03:52	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			106 %	68.9-141		10/11/2017	10/12/2017 03:52	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			96.5 %	73.3-114		10/11/2017	10/12/2017 03:52	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			96.0 %	72.2-114		10/11/2017	10/12/2017 03:52	EPA 8260B	



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-24**

**A174110-04 (Water)**

**Date Sampled**  
 10/09/2017 13:07

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/18/2017 04:07	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/18/2017 04:07	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/18/2017 04:07	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/18/2017 04:07	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	10/16/2017	10/18/2017 04:07	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/18/2017 04:07	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/18/2017 04:07	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/18/2017 04:07	EPA 8082A	
Surrogate: Decachlorobiphenyl			111 %	72.5-127		10/16/2017	10/18/2017 04:07	EPA 8082A	
Surrogate: Tetrachloro-meta-xylene			101 %	59.9-118		10/16/2017	10/18/2017 04:07	EPA 8082A	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29822**

<b>Total Dissolved Solids</b>	<b>2060</b>	8.7	20.0	mg/L	1	10/16/2017	10/16/2017 13:58	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29806**

<b>Total Suspended Solids</b>	<b>1.0</b>	0.95	2.0	mg/L	1	10/13/2017	10/13/2017 11:26	SM 2540D	Ja
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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-11S**  
**A174110-05 (Water)**

**Date Sampled**  
**10/09/2017 15:31**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/18/2017 04:32	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/18/2017 04:32	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/18/2017 04:32	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/18/2017 04:32	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	10/16/2017	10/18/2017 04:32	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/18/2017 04:32	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/18/2017 04:32	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/18/2017 04:32	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl</i>			119 %	72.5-127		10/16/2017	10/18/2017 04:32	EPA 8082A	
<i>Surrogate: Tetrachloro-meta-xylene</i>			110 %	59.9-118		10/16/2017	10/18/2017 04:32	EPA 8082A	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29822**

<b>Total Dissolved Solids</b>	<b>1960</b>	8.7	20.0	mg/L	1	10/16/2017	10/16/2017 13:58	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29806**

Total Suspended Solids	ND	0.95	2.0	mg/L	1	10/13/2017	10/13/2017 11:26	SM 2540D	
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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**MW-28**  
**A174110-06 (Water)**

**Date Sampled**  
**10/10/2017 13:57**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/18/2017 04:57	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/18/2017 04:57	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/18/2017 04:57	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/18/2017 04:57	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	10/16/2017	10/18/2017 04:57	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/18/2017 04:57	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/18/2017 04:57	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/18/2017 04:57	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl</i>			115 %	72.5-127		10/16/2017	10/18/2017 04:57	EPA 8082A	
<i>Surrogate: Tetrachloro-meta-xylene</i>			99.8 %	59.9-118		10/16/2017	10/18/2017 04:57	EPA 8082A	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29822**

<b>Total Dissolved Solids</b>	<b>1530</b>	8.7	20.0	mg/L	1	10/16/2017	10/16/2017 13:58	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29806**

Total Suspended Solids	ND	0.95	2.0	mg/L	1	10/13/2017	10/13/2017 11:26	SM 2540D	
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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**DUP-05**  
**A174110-07 (Water)**

**Date Sampled**  
**10/09/2017 00:00**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/18/2017 05:21	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/18/2017 05:21	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/18/2017 05:21	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/18/2017 05:21	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	10/16/2017	10/18/2017 05:21	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/18/2017 05:21	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/18/2017 05:21	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/18/2017 05:21	EPA 8082A	
Surrogate: Decachlorobiphenyl			118 %	72.5-127		10/16/2017	10/18/2017 05:21	EPA 8082A	
Surrogate: Tetrachloro-meta-xylene			110 %	59.9-118		10/16/2017	10/18/2017 05:21	EPA 8082A	

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
<b>1,2,4-Trimethylbenzene</b>	<b>0.30</b>	0.060	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	J
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
<b>1,3,5-Trimethylbenzene</b>	<b>0.15</b>	0.075	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	J
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**DUP-05**

**A174110-07 (Water)**

**Date Sampled**  
**10/09/2017 00:00**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
<b>Benzene</b>	<b>0.65</b>	0.089	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
<b>Chloromethane</b>	<b>3.6</b>	0.16	2.0	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
<b>Ethylbenzene</b>	<b>0.75</b>	0.054	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
<b>Isopropylbenzene</b>	<b>0.52</b>	0.081	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
<b>m,p-Xylene</b>	<b>0.35</b>	0.057	1.0	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	J
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
<b>Naphthalene</b>	<b>0.29</b>	0.088	5.0	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	B, J
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
<b>o-Xylene</b>	<b>0.10</b>	0.058	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	J
<b>p-Isopropyltoluene</b>	<b>0.14</b>	0.085	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	J
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
<b>Styrene</b>	<b>0.070</b>	0.065	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Tetrachloroethene	ND	0.081	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
<b>Toluene</b>	<b>0.32</b>	0.053	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	J
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Trichloroethene	ND	0.062	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**DUP-05**

**A174110-07 (Water)**

Date Sampled  
 10/09/2017 00:00

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

Vinyl chloride	ND	0.16	0.50	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	
<b>Xylenes, total</b>	<b>0.45</b>	0.12	1.5	ug/L	1	10/11/2017	10/12/2017 08:40	EPA 8260B	J
<i>Surrogate: Dibromofluoromethane</i>			102 %	68.9-141		10/11/2017	10/12/2017 08:40	EPA 8260B	
<i>Surrogate: Toluene-d8</i>			98.2 %	73.3-114		10/11/2017	10/12/2017 08:40	EPA 8260B	
<i>Surrogate: 4-Bromofluorobenzene</i>			97.5 %	72.2-114		10/11/2017	10/12/2017 08:40	EPA 8260B	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29822**

<b>Total Dissolved Solids</b>	<b>3910</b>	8.7	20.0	mg/L	1	10/16/2017	10/16/2017 13:59	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29806**

<b>Total Suspended Solids</b>	<b>1.2</b>	0.95	2.0	mg/L	1	10/13/2017	10/13/2017 11:26	SM 2540D	Ja
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**Revised Report**

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**FB-01**  
**A174110-08 (Water)**

**Date Sampled**  
**10/09/2017 15:08**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/18/2017 05:46	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/18/2017 05:46	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/18/2017 05:46	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/18/2017 05:46	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	10/16/2017	10/18/2017 05:46	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/18/2017 05:46	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/18/2017 05:46	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/18/2017 05:46	EPA 8082A	

Surrogate: Decachlorobiphenyl

111 % 72.5-127

10/16/2017 10/18/2017 05:46

EPA 8082A

Surrogate: Tetrachloro-meta-xylene

95.6 % 59.9-118

10/16/2017 10/18/2017 05:46

EPA 8082A

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
<b>1,2,4-Trimethylbenzene</b>	<b>0.16</b>	0.060	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	J
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**FB-01**  
**A174110-08 (Water)**

**Date Sampled**  
**10/09/2017 15:08**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

<b>Benzene</b>	<b>0.24</b>	0.089	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	J
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
<b>Chloromethane</b>	<b>1.2</b>	0.16	2.0	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	J
cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
<b>m,p-Xylene</b>	<b>0.15</b>	0.057	1.0	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	J
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
<b>Naphthalene</b>	<b>0.24</b>	0.088	5.0	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	B, J
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Styrene	ND	0.065	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
<b>Tetrachloroethene</b>	<b>0.29</b>	0.081	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	B, J
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
<b>Toluene</b>	<b>0.23</b>	0.053	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	J
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Trichloroethene	ND	0.062	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**FB-01**  
**A174110-08 (Water)**

**Date Sampled**  
**10/09/2017 15:08**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

Vinyl chloride	ND	0.16	0.50	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	
<b>Xylenes, total</b>	<b>0.15</b>	0.12	1.5	ug/L	1	10/11/2017	10/12/2017 05:44	EPA 8260B	J
<i>Surrogate: Dibromofluoromethane</i>			<i>102 %</i>	<i>68.9-141</i>		<i>10/11/2017</i>	<i>10/12/2017 05:44</i>	<i>EPA 8260B</i>	
<i>Surrogate: Toluene-d8</i>			<i>95.8 %</i>	<i>73.3-114</i>		<i>10/11/2017</i>	<i>10/12/2017 05:44</i>	<i>EPA 8260B</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>94.3 %</i>	<i>72.2-114</i>		<i>10/11/2017</i>	<i>10/12/2017 05:44</i>	<i>EPA 8260B</i>	

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29822**

Total Dissolved Solids	ND	8.7	20.0	mg/L	1	10/16/2017	10/16/2017 13:59	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29806**

Total Suspended Solids	ND	0.95	2.0	mg/L	1	10/13/2017	10/13/2017 11:27	SM 2540D	
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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Trip Blank**  
**A174110-09 (Water)**

**Date Sampled**  
**10/09/2017 00:00**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

1,1,1,2-Tetrachloroethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,1,1-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	0.099	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,1,2-Trichloroethane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,1,2-Trichlorotrifluoroethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,1-Dichloroethane	ND	0.12	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,1-Dichloroethene	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,1-Dichloropropene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,2,3-Trichlorobenzene	ND	0.045	2.0	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,2,3-Trichloropropane	ND	0.15	1.0	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,2,4-Trichlorobenzene	ND	0.077	2.0	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,2,4-Trimethylbenzene	ND	0.060	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,2-Dibromo-3-chloropropane	ND	0.25	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,2-Dichlorobenzene	ND	0.076	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,2-Dichloroethane	ND	0.078	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,2-Dichloropropane	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,3,5-Trimethylbenzene	ND	0.075	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,3-Dichlorobenzene	ND	0.096	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,3-Dichloropropane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
1,4-Dichlorobenzene	ND	0.070	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
2,2-Dichloropropane	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
2-Butanone	ND	3.0	20	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
2-Chlorotoluene	ND	0.075	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
2-Hexanone	ND	0.95	20	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
4-Chlorotoluene	ND	0.073	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
4-Methyl-2-pentanone	ND	0.77	20	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Acetone	ND	3.4	20	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Benzene	ND	0.089	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Bromobenzene	ND	0.084	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Bromochloromethane	ND	0.31	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Bromodichloromethane	ND	0.077	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Bromoform	ND	0.088	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Bromomethane	ND	0.59	5.0	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Carbon disulfide	ND	0.053	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Carbon tetrachloride	ND	0.038	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Chlorobenzene	ND	0.073	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Chloroethane	ND	0.25	5.0	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Chloroform	ND	0.062	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	



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**Revised Report**

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**Trip Blank**  
**A174110-09 (Water)**

**Date Sampled**  
**10/09/2017 00:00**

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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**Pace Analytical - Madison**

**Volatile Organic Compounds by Method 8260 - Purge and Trap**

**Preparation Batch:A710035**

<b>Chloromethane</b>	<b>1.3</b>	0.16	2.0	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	J
cis-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
cis-1,3-Dichloropropene	ND	0.061	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Dibromochloromethane	ND	0.091	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Dibromomethane	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Dichlorodifluoromethane	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Diisopropyl Ether	ND	0.15	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Ethylbenzene	ND	0.054	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Hexachlorobutadiene	ND	0.13	2.0	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Isopropylbenzene	ND	0.081	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
<b>m,p-Xylene</b>	<b>0.070</b>	0.057	1.0	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	J
Methyl t-Butyl Ether	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Methylene chloride	ND	0.14	2.0	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
<b>Naphthalene</b>	<b>0.40</b>	0.088	5.0	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	B, J
n-Butyl Benzene	ND	0.14	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
n-Hexane	ND	0.21	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
n-Propyl Benzene	ND	0.10	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
o-Xylene	ND	0.058	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
p-Isopropyltoluene	ND	0.085	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
sec-Butyl Benzene	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
<b>Styrene</b>	<b>0.090</b>	0.065	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	J
tert-Butylbenzene	ND	0.12	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Tetrachloroethene	ND	0.081	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Tetrahydrofuran	ND	1.2	10	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Toluene	ND	0.053	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
trans-1,2-Dichloroethene	ND	0.11	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
trans-1,3-Dichloropropene	ND	0.096	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Trichloroethene	ND	0.062	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Trichlorofluoromethane	ND	0.13	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Vinyl chloride	ND	0.16	0.50	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
Xylenes, total	ND	0.12	1.5	ug/L	1	10/11/2017	10/12/2017 05:16	EPA 8260B	
<i>Surrogate: Dibromofluoromethane</i>			<i>103 %</i>	<i>68.9-141</i>		<i>10/11/2017</i>	<i>10/12/2017 05:16</i>	<i>EPA 8260B</i>	
<i>Surrogate: Toluene-d8</i>			<i>99.1 %</i>	<i>73.3-114</i>		<i>10/11/2017</i>	<i>10/12/2017 05:16</i>	<i>EPA 8260B</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>			<i>98.0 %</i>	<i>72.2-114</i>		<i>10/11/2017</i>	<i>10/12/2017 05:16</i>	<i>EPA 8260B</i>	



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**Revised Report**

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**Polychlorinated Biphenyls by EPA Method 8082 - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710057 - EPA 3511**

**Blank (A710057-BLK1)**

Prepared: 10/16/2017 Analyzed: 10/17/2017 21:53

PCB-1016	ND	0.13	ug/L							
PCB-1221	ND	0.25	ug/L							
PCB-1232	ND	0.13	ug/L							
PCB-1242	ND	0.13	ug/L							
PCB-1248	ND	0.13	ug/L							
PCB-1254	ND	0.13	ug/L							
PCB-1260	ND	0.13	ug/L							
Total PCBs	ND	0.25	ug/L							
Surrogate: Decachlorobiphenyl	0.921		ug/L	0.7500		123	72.5-127			
Surrogate: Tetrachloro-meta-xylene	0.766		ug/L	0.7500		102	59.9-118			

**LCS (A710057-BS1)**

Prepared: 10/16/2017 Analyzed: 10/17/2017 21:28

PCB-1016	15.1	0.13	ug/L	12.50		121	70-130			
PCB-1260	16.2	0.13	ug/L	12.50		130	70-130			
Surrogate: Decachlorobiphenyl	0.950		ug/L	0.7500		127	72.5-127			
Surrogate: Tetrachloro-meta-xylene	0.818		ug/L	0.7500		109	59.9-118			

**Matrix Spike (A710057-MS1)**

Source: A174110-01

Prepared: 10/16/2017 Analyzed: 10/18/2017 06:36

PCB-1016	15.7	0.13	ug/L	12.50	ND	125	60-140			
PCB-1260	16.4	0.13	ug/L	12.50	ND	131	60-140			
Surrogate: Decachlorobiphenyl	0.968		ug/L	0.7500		129	72.5-127			S
Surrogate: Tetrachloro-meta-xylene	0.844		ug/L	0.7500		113	59.9-118			

**Matrix Spike Dup (A710057-MSD1)**

Source: A174110-01

Prepared: 10/16/2017 Analyzed: 10/18/2017 07:01

PCB-1016	15.2	0.13	ug/L	12.50	ND	122	60-140	2.72	20	
PCB-1260	15.9	0.13	ug/L	12.50	ND	127	60-140	3.09	20	
Surrogate: Decachlorobiphenyl	0.918		ug/L	0.7500		122	72.5-127			
Surrogate: Tetrachloro-meta-xylene	0.856		ug/L	0.7500		114	59.9-118			



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710035 - EPA 5030B**

**Blank (A710035-BLK1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 18:33

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,1-Trichloroethane	ND	0.50	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,2-Trichloroethane	ND	0.50	ug/L							
1,1,2-Trichlorotrifluoroethane	ND	0.50	ug/L							
1,1-Dichloroethane	ND	0.50	ug/L							
1,1-Dichloroethene	ND	0.50	ug/L							
1,1-Dichloropropene	ND	0.50	ug/L							
1,2,3-Trichlorobenzene	ND	2.0	ug/L							
1,2,3-Trichloropropane	ND	1.0	ug/L							
1,2,4-Trichlorobenzene	ND	2.0	ug/L							
1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L							
1,2-Dibromoethane (EDB)	ND	0.50	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	0.50	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	ug/L							
1,3-Dichlorobenzene	ND	0.50	ug/L							
1,3-Dichloropropane	ND	0.50	ug/L							
1,4-Dichlorobenzene	ND	0.50	ug/L							
2,2-Dichloropropane	ND	0.50	ug/L							
2-Butanone	ND	20	ug/L							
2-Chlorotoluene	ND	0.50	ug/L							
2-Hexanone	ND	20	ug/L							
4-Chlorotoluene	ND	0.50	ug/L							
4-Methyl-2-pentanone	ND	20	ug/L							
Acetone	ND	20	ug/L							
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	ug/L							
Bromochloromethane	ND	0.50	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	0.50	ug/L							
Bromomethane	ND	5.0	ug/L							
Carbon disulfide	ND	0.50	ug/L							
Carbon tetrachloride	ND	0.50	ug/L							
Chlorobenzene	ND	0.50	ug/L							
Chloroethane	ND	5.0	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	2.0	ug/L							
cis-1,2-Dichloroethene	ND	0.50	ug/L							
cis-1,3-Dichloropropene	ND	0.50	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	0.50	ug/L							



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**Revised Report**

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 708 Heartland Trail, Ste 3000  
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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710035 - EPA 5030B**

**Blank (A710035-BLK1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 18:33

Dichlorodifluoromethane	ND	0.50	ug/L							
Diisopropyl Ether	ND	0.50	ug/L							
Ethylbenzene	ND	0.50	ug/L							
Hexachlorobutadiene	ND	2.0	ug/L							
Isopropylbenzene	ND	0.50	ug/L							
m,p-Xylene	ND	1.0	ug/L							
Methyl t-Butyl Ether	ND	0.50	ug/L							
Methylene chloride	ND	2.0	ug/L							
Naphthalene	0.11	5.0	ug/L							J
n-Butyl Benzene	ND	0.50	ug/L							
n-Hexane	ND	0.50	ug/L							
n-Propyl Benzene	ND	0.50	ug/L							
o-Xylene	ND	0.50	ug/L							
p-Isopropyltoluene	ND	0.50	ug/L							
sec-Butyl Benzene	ND	0.50	ug/L							
Styrene	ND	0.50	ug/L							
tert-Butylbenzene	ND	0.50	ug/L							
Tetrachloroethene	0.17	0.50	ug/L							J
Tetrahydrofuran	ND	10	ug/L							
Toluene	ND	0.50	ug/L							
trans-1,2-Dichloroethene	ND	0.50	ug/L							
trans-1,3-Dichloropropene	ND	0.50	ug/L							
Trichloroethene	ND	0.50	ug/L							
Trichlorofluoromethane	ND	0.50	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, total	ND	1.5	ug/L							
<i>Surrogate: Dibromofluoromethane</i>	<i>10.5</i>		<i>ug/L</i>	<i>10.00</i>		<i>105</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>10.0</i>		<i>ug/L</i>	<i>10.00</i>		<i>100</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>9.72</i>		<i>ug/L</i>	<i>10.00</i>		<i>97.2</i>	<i>72.2-114</i>			

**LCS (A710035-BS1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 22:45

1,1,1,2-Tetrachloroethane	5.15	0.50	ug/L	5.000		103	75.8-136			
1,1,1-Trichloroethane	5.54	0.50	ug/L	5.000		111	66.1-164			
1,1,2,2-Tetrachloroethane	4.93	0.50	ug/L	5.000		98.6	61.8-138			
1,1,2-Trichloroethane	5.10	0.50	ug/L	5.000		102	76.7-127			
1,1,2-Trichlorotrifluoroethane	5.62	0.50	ug/L	5.000		112	55.6-199			
1,1-Dichloroethane	5.59	0.50	ug/L	5.000		112	69.1-153			
1,1-Dichloroethene	5.38	0.50	ug/L	5.000		108	51.2-180			
1,1-Dichloropropene	5.64	0.50	ug/L	5.000		113	77.3-125			
1,2,3-Trichlorobenzene	4.51	2.0	ug/L	5.000		90.2	74-122			
1,2,3-Trichloropropane	4.91	1.0	ug/L	5.000		98.2	69.8-140			
1,2,4-Trichlorobenzene	4.42	2.0	ug/L	5.000		88.4	73.3-120			
1,2,4-Trimethylbenzene	4.94	0.50	ug/L	5.000		98.8	86.6-121			
1,2-Dibromo-3-chloropropane	4.56	0.50	ug/L	5.000		91.2	42.9-137			





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**Revised Report**

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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710035 - EPA 5030B**

**LCS (A710035-BS1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 22:45

1,2-Dibromoethane (EDB)	4.95	0.50	ug/L	5.000		99.0	75.2-124			
1,2-Dichlorobenzene	4.87	0.50	ug/L	5.000		97.4	88.3-115			
1,2-Dichloroethane	5.75	0.50	ug/L	5.000		115	69.2-160			
1,2-Dichloropropane	5.09	0.50	ug/L	5.000		102	73.1-128			
1,3,5-Trimethylbenzene	4.97	0.50	ug/L	5.000		99.4	87.3-122			
1,3-Dichlorobenzene	4.76	0.50	ug/L	5.000		95.2	90.7-114			
1,3-Dichloropropane	5.02	0.50	ug/L	5.000		100	76.8-125			
1,4-Dichlorobenzene	4.67	0.50	ug/L	5.000		93.4	88.9-112			
2,2-Dichloropropane	4.65	0.50	ug/L	5.000		93.0	70.2-147			
2-Butanone	49.7	20	ug/L	50.00		99.4	39.5-160			
2-Chlorotoluene	4.89	0.50	ug/L	5.000		97.8	87.3-118			
2-Hexanone	48.0	20	ug/L	50.00		96.1	30.4-168			
4-Chlorotoluene	4.87	0.50	ug/L	5.000		97.4	87.6-120			
4-Methyl-2-pentanone	50.1	20	ug/L	50.00		100	38.8-166			
Acetone	53.4	20	ug/L	50.00		107	30.1-197			
Benzene	5.16	0.50	ug/L	5.000		103	68.2-135			
Bromobenzene	4.79	0.50	ug/L	5.000		95.8	84.4-112			
Bromochloromethane	5.22	0.50	ug/L	5.000		104	76.7-138			
Bromodichloromethane	5.29	0.50	ug/L	5.000		106	77.2-140			
Bromoform	4.98	0.50	ug/L	5.000		99.6	60-142			
Bromomethane	5.63	5.0	ug/L	5.000		113	52.3-196			
Carbon disulfide	5.30	0.50	ug/L	5.000		106	20.2-197			
Carbon tetrachloride	5.36	0.50	ug/L	5.000		107	61.2-157			
Chlorobenzene	4.96	0.50	ug/L	5.000		99.2	88.7-113			
Chloroethane	5.46	5.0	ug/L	5.000		109	43.1-196			
Chloroform	5.29	0.50	ug/L	5.000		106	68.7-161			
Chloromethane	4.98	2.0	ug/L	5.000		99.6	37.7-187			
cis-1,2-Dichloroethene	5.19	0.50	ug/L	5.000		104	76.1-127			
cis-1,3-Dichloropropene	4.81	0.50	ug/L	5.000		96.2	65.5-122			
Dibromochloromethane	5.12	0.50	ug/L	5.000		102	74.8-135			
Dibromomethane	5.07	0.50	ug/L	5.000		101	75-140			
Dichlorodifluoromethane	5.17	0.50	ug/L	5.000		103	68.8-164			
Diisopropyl Ether	5.63	0.50	ug/L	5.000		113	62.1-134			
Ethylbenzene	5.09	0.50	ug/L	5.000		102	86-119			
Hexachlorobutadiene	4.85	2.0	ug/L	5.000		97.0	54.7-158			
Isopropylbenzene	5.10	0.50	ug/L	5.000		102	86.3-118			
m,p-Xylene	9.94	1.0	ug/L	10.00		99.4	87.1-118			
Methyl t-Butyl Ether	5.60	0.50	ug/L	5.000		112	58.1-138			
Methylene chloride	5.53	2.0	ug/L	5.000		111	63.5-153			
Naphthalene	4.61	5.0	ug/L	5.000		92.2	39.3-132			J, B
n-Butyl Benzene	4.68	0.50	ug/L	5.000		93.6	84.7-121			
n-Hexane	5.41	0.50	ug/L	5.000		108	49.5-147			
n-Propyl Benzene	4.80	0.50	ug/L	5.000		96.0	84.2-124			
o-Xylene	4.91	0.50	ug/L	5.000		98.2	82.8-114			



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710035 - EPA 5030B**

**LCS (A710035-BS1)**

Prepared: 10/11/2017 Analyzed: 10/11/2017 22:45

p-Isopropyltoluene	4.91	0.50	ug/L	5.000		98.2	88.1-116			
sec-Butyl Benzene	4.93	0.50	ug/L	5.000		98.6	85.3-121			
Styrene	4.70	0.50	ug/L	5.000		94.0	84.7-120			
tert-Butylbenzene	4.98	0.50	ug/L	5.000		99.6	76.2-123			
Tetrachloroethene	4.84	0.50	ug/L	5.000		96.8	79.3-122			B
Tetrahydrofuran	25.6	10	ug/L	25.00		102	27.8-152			
Toluene	4.83	0.50	ug/L	5.000		96.6	82.7-117			
trans-1,2-Dichloroethene	5.38	0.50	ug/L	5.000		108	72.3-135			
trans-1,3-Dichloropropene	4.82	0.50	ug/L	5.000		96.4	72.5-122			
Trichloroethene	5.13	0.50	ug/L	5.000		103	77-126			
Trichlorofluoromethane	5.61	0.50	ug/L	5.000		112	56-195			
Vinyl chloride	5.34	0.50	ug/L	5.000		107	52.3-186			
<i>Surrogate: Dibromofluoromethane</i>	<i>5.34</i>		<i>ug/L</i>	<i>5.000</i>		<i>107</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>5.02</i>		<i>ug/L</i>	<i>5.000</i>		<i>100</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>4.93</i>		<i>ug/L</i>	<i>5.000</i>		<i>98.6</i>	<i>72.2-114</i>			

**Matrix Spike (A710035-MS1)**

Source: A174103-08

Prepared: 10/11/2017 Analyzed: 10/12/2017 00:36

1,1,1,2-Tetrachloroethane	25.0	2.5	ug/L	25.00	ND	99.8	77.8-137			
1,1,1-Trichloroethane	28.0	2.5	ug/L	25.00	ND	112	66.3-167			
1,1,2,2-Tetrachloroethane	26.3	2.5	ug/L	25.00	ND	105	61.3-138			
1,1,2-Trichloroethane	30.8	2.5	ug/L	25.00	ND	123	75.4-132			
1,1,2-Trichlorotrifluoroethane	28.9	2.5	ug/L	25.00	ND	115	57.7-198			
1,1-Dichloroethane	29.2	2.5	ug/L	25.00	ND	117	66.9-154			
1,1-Dichloroethene	27.8	2.5	ug/L	25.00	ND	111	50.1-187			
1,1-Dichloropropene	28.0	2.5	ug/L	25.00	ND	112	74.1-127			
1,2,3-Trichlorobenzene	23.0	10	ug/L	25.00	ND	92.0	75.4-122			
1,2,3-Trichloropropane	27.9	5.0	ug/L	25.00	ND	111	68.4-141			
1,2,4-Trichlorobenzene	21.5	10	ug/L	25.00	ND	86.0	72.1-121			
1,2,4-Trimethylbenzene	24.8	2.5	ug/L	25.00	ND	99.2	86.5-121			
1,2-Dibromo-3-chloropropane	26.2	2.5	ug/L	25.00	ND	105	49.9-130			
1,2-Dibromoethane (EDB)	25.8	2.5	ug/L	25.00	ND	103	74.4-124			
1,2-Dichlorobenzene	24.9	2.5	ug/L	25.00	ND	99.4	88.5-114			
1,2-Dichloroethane	30.2	2.5	ug/L	25.00	ND	121	72.6-161			
1,2-Dichloropropane	24.6	2.5	ug/L	25.00	ND	98.4	84.7-119			
1,3,5-Trimethylbenzene	25.2	2.5	ug/L	25.00	ND	101	87.3-122			
1,3-Dichlorobenzene	23.5	2.5	ug/L	25.00	ND	94.0	90.1-115			
1,3-Dichloropropane	25.7	2.5	ug/L	25.00	ND	103	76.6-126			
1,4-Dichlorobenzene	23.4	2.5	ug/L	25.00	ND	93.4	87.6-113			
2,2-Dichloropropane	23.5	2.5	ug/L	25.00	ND	93.8	72.3-145			
2-Butanone	274	100	ug/L	250.0	ND	110	32.2-170			
2-Chlorotoluene	25.2	2.5	ug/L	25.00	ND	101	87.9-117			
2-Hexanone	259	100	ug/L	250.0	ND	103	30.2-168			
4-Chlorotoluene	24.8	2.5	ug/L	25.00	ND	99.0	87.5-120			
4-Methyl-2-pentanone	271	100	ug/L	250.0	ND	109	39.1-168			



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710035 - EPA 5030B**

<b>Matrix Spike (A710035-MS1)</b>	<b>Source: A174103-08</b>		<b>Prepared: 10/11/2017 Analyzed: 10/12/2017 00:36</b>							
Acetone	307	100	ug/L	250.0	ND	123	31.2-199			
Benzene	26.1	2.5	ug/L	25.00	ND	104	67.8-136			
Bromobenzene	25.1	2.5	ug/L	25.00	ND	100	84.5-111			
Bromochloromethane	27.7	2.5	ug/L	25.00	ND	111	80.9-134			
Bromodichloromethane	26.2	2.5	ug/L	25.00	ND	105	76.1-144			
Bromoform	25.4	2.5	ug/L	25.00	ND	101	60.2-142			
Bromomethane	28.7	25	ug/L	25.00	ND	115	50.3-198			
Carbon disulfide	27.2	2.5	ug/L	25.00	ND	109	35.6-196			
Carbon tetrachloride	27.1	2.5	ug/L	25.00	ND	108	69.7-152			
Chlorobenzene	24.2	2.5	ug/L	25.00	ND	96.8	89.3-113			
Chloroethane	28.9	25	ug/L	25.00	ND	115	50.2-198			
Chloroform	26.5	2.5	ug/L	25.00	ND	106	66.2-164			
Chloromethane	27.0	10	ug/L	25.00	1.45	102	46.5-179			
cis-1,2-Dichloroethene	26.1	2.5	ug/L	25.00	ND	104	67.5-137			
cis-1,3-Dichloropropene	24.0	2.5	ug/L	25.00	ND	95.8	63.3-123			
Dibromochloromethane	25.8	2.5	ug/L	25.00	ND	103	76-133			
Dibromomethane	26.8	2.5	ug/L	25.00	ND	107	78.2-139			
Dichlorodifluoromethane	27.5	2.5	ug/L	25.00	ND	110	70.6-150			
Diisopropyl Ether	29.7	2.5	ug/L	25.00	ND	119	57.3-137			
Ethylbenzene	24.7	2.5	ug/L	25.00	ND	98.8	87.3-118			
Hexachlorobutadiene	24.8	10	ug/L	25.00	ND	99.2	55.4-161			
Isopropylbenzene	24.9	2.5	ug/L	25.00	ND	99.4	89-115			
m,p-Xylene	48.2	5.0	ug/L	50.00	ND	96.4	88.4-117			
Methyl t-Butyl Ether	29.8	2.5	ug/L	25.00	ND	119	54.4-145			
Methylene chloride	28.9	10	ug/L	25.00	ND	115	59.2-154			
Naphthalene	24.5	25	ug/L	25.00	ND	97.8	43.3-129			J, B
n-Butyl Benzene	23.3	2.5	ug/L	25.00	ND	93.0	85.9-119			
n-Hexane	28.5	2.5	ug/L	25.00	ND	114	44.3-150			
n-Propyl Benzene	24.3	2.5	ug/L	25.00	ND	97.0	83.7-124			
o-Xylene	24.2	2.5	ug/L	25.00	ND	96.8	83.9-112			
p-Isopropyltoluene	24.8	2.5	ug/L	25.00	ND	99.2	89.6-114			
sec-Butyl Benzene	25.1	2.5	ug/L	25.00	ND	100	85.5-120			
Styrene	23.2	2.5	ug/L	25.00	0.450	90.8	79.7-123			
tert-Butylbenzene	25.5	2.5	ug/L	25.00	ND	102	78.6-120			
Tetrachloroethene	146	2.5	ug/L	25.00	128	70.6	78.8-123			M, B
Tetrahydrofuran	138	50	ug/L	125.0	ND	110	24.7-155			
Toluene	23.5	2.5	ug/L	25.00	ND	93.8	81-118			
trans-1,2-Dichloroethene	27.8	2.5	ug/L	25.00	ND	111	65.3-141			
trans-1,3-Dichloropropene	23.6	2.5	ug/L	25.00	ND	94.4	73.7-120			
Trichloroethene	24.9	2.5	ug/L	25.00	ND	99.6	77.1-123			
Trichlorofluoromethane	29.7	2.5	ug/L	25.00	ND	119	44.8-199			
Vinyl chloride	28.5	2.5	ug/L	25.00	ND	114	49.8-180			
Surrogate: Dibromofluoromethane	28.0		ug/L	25.00		112	68.9-141			
Surrogate: Toluene-d8	24.9		ug/L	25.00		99.4	73.3-114			



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Revised Report

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Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control

Pace Analytical - Madison

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A710035 - EPA 5030B

Matrix Spike (A710035-MS1) Source: A174103-08 Prepared: 10/11/2017 Analyzed: 10/12/2017 00:36

Surrogate: 4-Bromofluorobenzene 24.3 ug/L 25.00 97.2 72.2-114

Matrix Spike Dup (A710035-MSD1) Source: A174103-08 Prepared: 10/11/2017 Analyzed: 10/12/2017 01:04

1,1,1,2-Tetrachloroethane	25.7	2.5	ug/L	25.00	ND	103	77.8-137	2.96	20	
1,1,1-Trichloroethane	28.0	2.5	ug/L	25.00	ND	112	66.3-167	0.179	20	
1,1,2,2-Tetrachloroethane	27.5	2.5	ug/L	25.00	ND	110	61.3-138	4.65	20	
1,1,2-Trichloroethane	31.9	2.5	ug/L	25.00	ND	128	75.4-132	3.67	20	
1,1,2-Trichlorotrifluoroethane	29.4	2.5	ug/L	25.00	ND	117	57.7-198	1.72	20	
1,1-Dichloroethane	29.1	2.5	ug/L	25.00	ND	116	66.9-154	0.172	20	
1,1-Dichloroethene	28.2	2.5	ug/L	25.00	ND	113	50.1-187	1.43	20	
1,1-Dichloropropene	28.6	2.5	ug/L	25.00	ND	114	74.1-127	1.95	20	
1,2,3-Trichlorobenzene	24.1	10	ug/L	25.00	ND	96.2	75.4-122	4.46	20	
1,2,3-Trichloropropane	29.5	5.0	ug/L	25.00	ND	118	68.4-141	5.58	20	
1,2,4-Trichlorobenzene	22.8	10	ug/L	25.00	ND	91.0	72.1-121	5.65	20	
1,2,4-Trimethylbenzene	24.9	2.5	ug/L	25.00	ND	99.4	86.5-121	0.201	20	
1,2-Dibromo-3-chloropropane	27.3	2.5	ug/L	25.00	ND	109	49.9-130	4.12	20	
1,2-Dibromoethane (EDB)	27.5	2.5	ug/L	25.00	ND	110	74.4-124	6.39	20	
1,2-Dichlorobenzene	25.3	2.5	ug/L	25.00	ND	101	88.5-114	1.60	20	
1,2-Dichloroethane	31.3	2.5	ug/L	25.00	ND	125	72.6-161	3.58	20	
1,2-Dichloropropane	25.8	2.5	ug/L	25.00	ND	103	84.7-119	4.57	20	
1,3,5-Trimethylbenzene	24.9	2.5	ug/L	25.00	ND	99.6	87.3-122	0.999	20	
1,3-Dichlorobenzene	24.2	2.5	ug/L	25.00	ND	96.6	90.1-115	2.73	20	
1,3-Dichloropropane	27.1	2.5	ug/L	25.00	ND	108	76.6-126	5.50	20	
1,4-Dichlorobenzene	23.9	2.5	ug/L	25.00	ND	95.6	87.6-113	2.33	20	
2,2-Dichloropropane	23.9	2.5	ug/L	25.00	ND	95.4	72.3-145	1.69	20	
2-Butanone	307	100	ug/L	250.0	ND	123	32.2-170	11.6	20	
2-Chlorotoluene	24.9	2.5	ug/L	25.00	ND	99.4	87.9-117	1.40	20	
2-Hexanone	291	100	ug/L	250.0	ND	117	30.2-168	11.9	20	
4-Chlorotoluene	23.8	2.5	ug/L	25.00	ND	95.2	87.5-120	3.91	20	
4-Methyl-2-pentanone	302	100	ug/L	250.0	ND	121	39.1-168	10.7	20	
Acetone	346	100	ug/L	250.0	ND	138	31.2-199	12.1	20	
Benzene	25.9	2.5	ug/L	25.00	ND	104	67.8-136	0.769	20	
Bromobenzene	25.2	2.5	ug/L	25.00	ND	101	84.5-111	0.199	20	
Bromochloromethane	27.7	2.5	ug/L	25.00	ND	111	80.9-134	0.00	20	
Bromodichloromethane	27.4	2.5	ug/L	25.00	ND	109	76.1-144	4.30	20	
Bromoform	27.0	2.5	ug/L	25.00	ND	108	60.2-142	6.30	20	
Bromomethane	29.7	2.5	ug/L	25.00	ND	119	50.3-198	3.26	20	
Carbon disulfide	27.4	2.5	ug/L	25.00	ND	110	35.6-196	0.733	20	
Carbon tetrachloride	26.7	2.5	ug/L	25.00	ND	107	69.7-152	1.49	20	
Chlorobenzene	24.7	2.5	ug/L	25.00	ND	98.6	89.3-113	1.84	20	
Chloroethane	28.9	2.5	ug/L	25.00	ND	115	50.2-198	0.00	20	
Chloroform	27.3	2.5	ug/L	25.00	ND	109	66.2-164	3.16	20	
Chloromethane	26.5	10	ug/L	25.00	1.45	100	46.5-179	1.98	20	
cis-1,2-Dichloroethene	26.0	2.5	ug/L	25.00	ND	104	67.5-137	0.385	20	



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control

Pace Analytical - Madison

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A710035 - EPA 5030B

Matrix Spike Dup (A710035-MSD1)

Source: A174103-08

Prepared: 10/11/2017 Analyzed: 10/12/2017 01:04

cis-1,3-Dichloropropene	24.9	2.5	ug/L	25.00	ND	99.6	63.3-123	3.89	20	
Dibromochloromethane	27.5	2.5	ug/L	25.00	ND	110	76-133	6.39	20	
Dibromomethane	27.6	2.5	ug/L	25.00	ND	110	78.2-139	2.95	20	
Dichlorodifluoromethane	27.7	2.5	ug/L	25.00	ND	111	70.6-150	0.726	20	
Diisopropyl Ether	29.9	2.5	ug/L	25.00	ND	119	57.3-137	0.672	20	
Ethylbenzene	24.9	2.5	ug/L	25.00	ND	99.6	87.3-118	0.806	20	
Hexachlorobutadiene	24.3	10	ug/L	25.00	ND	97.2	55.4-161	2.04	20	
Isopropylbenzene	25.9	2.5	ug/L	25.00	ND	103	89-115	3.94	20	
m,p-Xylene	49.6	5.0	ug/L	50.00	ND	99.1	88.4-117	2.76	20	
Methyl t-Butyl Ether	31.7	2.5	ug/L	25.00	ND	127	54.4-145	6.02	20	
Methylene chloride	29.1	10	ug/L	25.00	ND	116	59.2-154	0.863	20	
Naphthalene	28.0	25	ug/L	25.00	ND	112	43.3-129	13.4	20	B
n-Butyl Benzene	23.9	2.5	ug/L	25.00	ND	95.4	85.9-119	2.55	20	
n-Hexane	30.0	2.5	ug/L	25.00	ND	120	44.3-150	5.13	20	
n-Propyl Benzene	24.2	2.5	ug/L	25.00	ND	96.8	83.7-124	0.206	20	
o-Xylene	25.1	2.5	ug/L	25.00	ND	100	83.9-112	3.45	20	
p-Isopropyltoluene	24.8	2.5	ug/L	25.00	ND	99.0	89.6-114	0.202	20	
sec-Butyl Benzene	24.7	2.5	ug/L	25.00	ND	98.6	85.5-120	1.81	20	
Styrene	23.8	2.5	ug/L	25.00	0.450	93.4	79.7-123	2.82	20	
tert-Butylbenzene	25.0	2.5	ug/L	25.00	ND	99.8	78.6-120	2.18	20	
Tetrachloroethene	146	2.5	ug/L	25.00	128	70.4	78.8-123	0.284	20	M, B
Tetrahydrofuran	156	50	ug/L	125.0	ND	125	24.7-155	12.2	20	
Toluene	24.2	2.5	ug/L	25.00	ND	96.6	81-118	2.94	20	
trans-1,2-Dichloroethene	27.3	2.5	ug/L	25.00	ND	109	65.3-141	2.00	20	
trans-1,3-Dichloropropene	24.9	2.5	ug/L	25.00	ND	99.4	73.7-120	5.16	20	
Trichloroethene	26.6	2.5	ug/L	25.00	ND	106	77.1-123	6.41	20	
Trichlorofluoromethane	30.0	2.5	ug/L	25.00	ND	120	44.8-199	1.01	20	
Vinyl chloride	28.6	2.5	ug/L	25.00	ND	114	49.8-180	0.351	20	
Surrogate: Dibromofluoromethane	27.7		ug/L	25.00		111	68.9-141			
Surrogate: Toluene-d8	25.7		ug/L	25.00		103	73.3-114			
Surrogate: 4-Bromofluorobenzene	25.8		ug/L	25.00		103	72.2-114			



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

**Blank (A710036-BLK1)**

Prepared: 10/11/2017 Analyzed: 10/12/2017 06:12

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,1-Trichloroethane	ND	0.50	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,2-Trichloroethane	ND	0.50	ug/L							
1,1,2-Trichlorotrifluoroethane	ND	0.50	ug/L							
1,1-Dichloroethane	ND	0.50	ug/L							
1,1-Dichloroethene	ND	0.50	ug/L							
1,1-Dichloropropene	ND	0.50	ug/L							
1,2,3-Trichlorobenzene	ND	2.0	ug/L							
1,2,3-Trichloropropane	ND	1.0	ug/L							
1,2,4-Trichlorobenzene	ND	2.0	ug/L							
1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L							
1,2-Dibromoethane (EDB)	ND	0.50	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	0.50	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	ug/L							
1,3-Dichlorobenzene	ND	0.50	ug/L							
1,3-Dichloropropane	ND	0.50	ug/L							
1,4-Dichlorobenzene	ND	0.50	ug/L							
2,2-Dichloropropane	ND	0.50	ug/L							
2-Butanone	ND	20	ug/L							
2-Chlorotoluene	ND	0.50	ug/L							
2-Hexanone	ND	20	ug/L							
4-Chlorotoluene	ND	0.50	ug/L							
4-Methyl-2-pentanone	ND	20	ug/L							
Acetone	ND	20	ug/L							
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	ug/L							
Bromochloromethane	ND	0.50	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	0.50	ug/L							
Bromomethane	ND	5.0	ug/L							
Carbon disulfide	ND	0.50	ug/L							
Carbon tetrachloride	ND	0.50	ug/L							
Chlorobenzene	ND	0.50	ug/L							
Chloroethane	ND	5.0	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	2.0	ug/L							
cis-1,2-Dichloroethene	ND	0.50	ug/L							
cis-1,3-Dichloropropene	ND	0.50	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	0.50	ug/L							



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

**Blank (A710036-BLK1)**

Prepared: 10/11/2017 Analyzed: 10/12/2017 06:12

Dichlorodifluoromethane	ND	0.50	ug/L							
Diisopropyl Ether	ND	0.50	ug/L							
Ethylbenzene	ND	0.50	ug/L							
Hexachlorobutadiene	ND	2.0	ug/L							
Isopropylbenzene	ND	0.50	ug/L							
m,p-Xylene	ND	1.0	ug/L							
Methyl t-Butyl Ether	ND	0.50	ug/L							
Methylene chloride	ND	2.0	ug/L							
Naphthalene	ND	5.0	ug/L							
n-Butyl Benzene	ND	0.50	ug/L							
n-Hexane	ND	0.50	ug/L							
n-Propyl Benzene	ND	0.50	ug/L							
o-Xylene	ND	0.50	ug/L							
p-Isopropyltoluene	ND	0.50	ug/L							
sec-Butyl Benzene	ND	0.50	ug/L							
Styrene	0.080	0.50	ug/L							J
tert-Butylbenzene	ND	0.50	ug/L							
Tetrachloroethene	ND	0.50	ug/L							
Tetrahydrofuran	ND	10	ug/L							
Toluene	ND	0.50	ug/L							
trans-1,2-Dichloroethene	ND	0.50	ug/L							
trans-1,3-Dichloropropene	ND	0.50	ug/L							
Trichloroethene	ND	0.50	ug/L							
Trichlorofluoromethane	ND	0.50	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, total	ND	1.5	ug/L							
Surrogate: Dibromofluoromethane	10.6		ug/L	10.00		106	68.9-141			
Surrogate: Toluene-d8	9.83		ug/L	10.00		98.3	73.3-114			
Surrogate: 4-Bromofluorobenzene	9.81		ug/L	10.00		98.1	72.2-114			

**Blank (A710036-BLK2)**

Prepared: 10/12/2017 Analyzed: 10/12/2017 15:04

1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,1-Trichloroethane	ND	0.50	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,2-Trichloroethane	ND	0.50	ug/L							
1,1,2-Trichlorotrifluoroethane	ND	0.50	ug/L							
1,1-Dichloroethane	ND	0.50	ug/L							
1,1-Dichloroethene	ND	0.50	ug/L							
1,1-Dichloropropene	ND	0.50	ug/L							
1,2,3-Trichlorobenzene	0.050	2.0	ug/L							J
1,2,3-Trichloropropane	ND	1.0	ug/L							
1,2,4-Trichlorobenzene	ND	2.0	ug/L							
1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L							



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

**Blank (A710036-BLK2)**

Prepared: 10/12/2017 Analyzed: 10/12/2017 15:04

1,2-Dibromoethane (EDB)	ND	0.50	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	0.50	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	ug/L							
1,3-Dichlorobenzene	ND	0.50	ug/L							
1,3-Dichloropropane	ND	0.50	ug/L							
1,4-Dichlorobenzene	ND	0.50	ug/L							
2,2-Dichloropropane	ND	0.50	ug/L							
2-Butanone	ND	20	ug/L							
2-Chlorotoluene	ND	0.50	ug/L							
2-Hexanone	ND	20	ug/L							
4-Chlorotoluene	ND	0.50	ug/L							
4-Methyl-2-pentanone	ND	20	ug/L							
Acetone	ND	20	ug/L							
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	ug/L							
Bromochloromethane	ND	0.50	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	0.50	ug/L							
Bromomethane	ND	5.0	ug/L							
Carbon disulfide	ND	0.50	ug/L							
Carbon tetrachloride	ND	0.50	ug/L							
Chlorobenzene	ND	0.50	ug/L							
Chloroethane	ND	5.0	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	2.0	ug/L							
cis-1,2-Dichloroethene	ND	0.50	ug/L							
cis-1,3-Dichloropropene	ND	0.50	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	0.50	ug/L							
Dichlorodifluoromethane	ND	0.50	ug/L							
Diisopropyl Ether	ND	0.50	ug/L							
Ethylbenzene	ND	0.50	ug/L							
Hexachlorobutadiene	ND	2.0	ug/L							
Isopropylbenzene	ND	0.50	ug/L							
m,p-Xylene	ND	1.0	ug/L							
Methyl t-Butyl Ether	ND	0.50	ug/L							
Methylene chloride	0.14	2.0	ug/L							J
Naphthalene	0.30	5.0	ug/L							J
n-Butyl Benzene	ND	0.50	ug/L							
n-Hexane	ND	0.50	ug/L							
n-Propyl Benzene	ND	0.50	ug/L							
o-Xylene	ND	0.50	ug/L							





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 Project Number: 266431  
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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

**Blank (A710036-BLK2)**

Prepared: 10/12/2017 Analyzed: 10/12/2017 15:04

p-Isopropyltoluene	ND	0.50	ug/L							
sec-Butyl Benzene	ND	0.50	ug/L							
Styrene	0.090	0.50	ug/L							J
tert-Butylbenzene	ND	0.50	ug/L							
Tetrachloroethene	ND	0.50	ug/L							
Tetrahydrofuran	ND	10	ug/L							
Toluene	0.060	0.50	ug/L							J
trans-1,2-Dichloroethene	ND	0.50	ug/L							
trans-1,3-Dichloropropene	ND	0.50	ug/L							
Trichloroethene	ND	0.50	ug/L							
Trichlorofluoromethane	ND	0.50	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, total	ND	1.5	ug/L							
<i>Surrogate: Dibromofluoromethane</i>	10.1		ug/L	10.00		101	68.9-141			
<i>Surrogate: Toluene-d8</i>	9.74		ug/L	10.00		97.4	73.3-114			
<i>Surrogate: 4-Bromofluorobenzene</i>	9.73		ug/L	10.00		97.3	72.2-114			

**LCS (A710036-BS1)**

Prepared: 10/11/2017 Analyzed: 10/12/2017 02:57

1,1,1,2-Tetrachloroethane	5.15	0.50	ug/L	5.000		103	75.8-136			
1,1,1-Trichloroethane	5.60	0.50	ug/L	5.000		112	66.1-164			
1,1,2,2-Tetrachloroethane	5.18	0.50	ug/L	5.000		104	61.8-138			
1,1,2-Trichloroethane	5.22	0.50	ug/L	5.000		104	76.7-127			
1,1,2-Trichlorotrifluoroethane	5.81	0.50	ug/L	5.000		116	55.6-199			
1,1-Dichloroethane	5.73	0.50	ug/L	5.000		115	69.1-153			
1,1-Dichloroethene	5.67	0.50	ug/L	5.000		113	51.2-180			
1,1-Dichloropropene	5.70	0.50	ug/L	5.000		114	77.3-125			
1,2,3-Trichlorobenzene	4.66	2.0	ug/L	5.000		93.2	74-122			B
1,2,3-Trichloropropane	5.33	1.0	ug/L	5.000		107	69.8-140			
1,2,4-Trichlorobenzene	4.50	2.0	ug/L	5.000		90.0	73.3-120			
1,2,4-Trimethylbenzene	4.98	0.50	ug/L	5.000		99.6	86.6-121			
1,2-Dibromo-3-chloropropane	5.10	0.50	ug/L	5.000		102	42.9-137			
1,2-Dibromoethane (EDB)	5.14	0.50	ug/L	5.000		103	75.2-124			
1,2-Dichlorobenzene	4.95	0.50	ug/L	5.000		99.0	88.3-115			
1,2-Dichloroethane	5.86	0.50	ug/L	5.000		117	69.2-160			
1,2-Dichloropropane	5.11	0.50	ug/L	5.000		102	73.1-128			
1,3,5-Trimethylbenzene	5.07	0.50	ug/L	5.000		101	87.3-122			
1,3-Dichlorobenzene	4.87	0.50	ug/L	5.000		97.4	90.7-114			
1,3-Dichloropropane	5.22	0.50	ug/L	5.000		104	76.8-125			
1,4-Dichlorobenzene	4.77	0.50	ug/L	5.000		95.4	88.9-112			
2,2-Dichloropropane	4.59	0.50	ug/L	5.000		91.8	70.2-147			
2-Butanone	51.9	20	ug/L	50.00		104	39.5-160			
2-Chlorotoluene	5.02	0.50	ug/L	5.000		100	87.3-118			
2-Hexanone	50.9	20	ug/L	50.00		102	30.4-168			
4-Chlorotoluene	4.95	0.50	ug/L	5.000		99.0	87.6-120			



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**Revised Report**

TRC Environmental Corporation, Inc.  
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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

LCS (A710036-BS1)		Prepared: 10/11/2017 Analyzed: 10/12/2017 02:57								
4-Methyl-2-pentanone	53.0	20	ug/L	50.00		106	38.8-166			
Acetone	57.6	20	ug/L	50.00		115	30.1-197			
Benzene	5.23	0.50	ug/L	5.000		105	68.2-135			
Bromobenzene	5.07	0.50	ug/L	5.000		101	84.4-112			
Bromochloromethane	5.44	0.50	ug/L	5.000		109	76.7-138			
Bromodichloromethane	5.33	0.50	ug/L	5.000		107	77.2-140			
Bromoform	5.19	0.50	ug/L	5.000		104	60-142			
Bromomethane	5.80	5.0	ug/L	5.000		116	52.3-196			
Carbon disulfide	5.48	0.50	ug/L	5.000		110	20.2-197			
Carbon tetrachloride	5.43	0.50	ug/L	5.000		109	61.2-157			
Chlorobenzene	4.99	0.50	ug/L	5.000		99.8	88.7-113			
Chloroethane	5.79	5.0	ug/L	5.000		116	43.1-196			
Chloroform	5.28	0.50	ug/L	5.000		106	68.7-161			
Chloromethane	5.34	2.0	ug/L	5.000		107	37.7-187			
cis-1,2-Dichloroethene	5.09	0.50	ug/L	5.000		102	76.1-127			
cis-1,3-Dichloropropene	4.85	0.50	ug/L	5.000		97.0	65.5-122			
Dibromochloromethane	5.23	0.50	ug/L	5.000		105	74.8-135			
Dibromomethane	5.31	0.50	ug/L	5.000		106	75-140			
Dichlorodifluoromethane	5.64	0.50	ug/L	5.000		113	68.8-164			
Diisopropyl Ether	5.77	0.50	ug/L	5.000		115	62.1-134			
Ethylbenzene	5.09	0.50	ug/L	5.000		102	86-119			
Hexachlorobutadiene	5.00	2.0	ug/L	5.000		100	54.7-158			
Isopropylbenzene	5.14	0.50	ug/L	5.000		103	86.3-118			
m,p-Xylene	9.97	1.0	ug/L	10.00		99.7	87.1-118			
Methyl t-Butyl Ether	5.73	0.50	ug/L	5.000		115	58.1-138			
Methylene chloride	5.66	2.0	ug/L	5.000		113	63.5-153			B
Naphthalene	5.21	5.0	ug/L	5.000		104	39.3-132			B
n-Butyl Benzene	4.75	0.50	ug/L	5.000		95.0	84.7-121			
n-Hexane	6.07	0.50	ug/L	5.000		121	49.5-147			
n-Propyl Benzene	4.89	0.50	ug/L	5.000		97.8	84.2-124			
o-Xylene	5.12	0.50	ug/L	5.000		102	82.8-114			
p-Isopropyltoluene	5.03	0.50	ug/L	5.000		101	88.1-116			
sec-Butyl Benzene	5.06	0.50	ug/L	5.000		101	85.3-121			
Styrene	4.80	0.50	ug/L	5.000		96.0	84.7-120			B
tert-Butylbenzene	5.13	0.50	ug/L	5.000		103	76.2-123			
Tetrachloroethene	4.72	0.50	ug/L	5.000		94.4	79.3-122			
Tetrahydrofuran	27.0	10	ug/L	25.00		108	27.8-152			
Toluene	4.80	0.50	ug/L	5.000		96.0	82.7-117			B
trans-1,2-Dichloroethene	5.50	0.50	ug/L	5.000		110	72.3-135			
trans-1,3-Dichloropropene	4.82	0.50	ug/L	5.000		96.4	72.5-122			
Trichloroethene	5.15	0.50	ug/L	5.000		103	77-126			
Trichlorofluoromethane	5.87	0.50	ug/L	5.000		117	56-195			
Vinyl chloride	5.56	0.50	ug/L	5.000		111	52.3-186			
<i>Surrogate: Dibromofluoromethane</i>	<i>5.41</i>		<i>ug/L</i>	<i>5.000</i>		<i>108</i>	<i>68.9-141</i>			



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**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

**LCS (A710036-BS1)**

Prepared: 10/11/2017 Analyzed: 10/12/2017 02:57

Surrogate: Toluene-d8	5.08		ug/L	5.000		102	73.3-114			
Surrogate: 4-Bromofluorobenzene	5.05		ug/L	5.000		101	72.2-114			

**LCS (A710036-BS2)**

Prepared: 10/12/2017 Analyzed: 10/12/2017 14:37

1,1,1,2-Tetrachloroethane	5.27	0.50	ug/L	5.000		105	75.8-136			
1,1,1-Trichloroethane	5.34	0.50	ug/L	5.000		107	66.1-164			
1,1,2,2-Tetrachloroethane	4.64	0.50	ug/L	5.000		92.8	61.8-138			
1,1,2-Trichloroethane	5.11	0.50	ug/L	5.000		102	76.7-127			
1,1,2-Trichlorotrifluoroethane	5.58	0.50	ug/L	5.000		112	55.6-199			
1,1-Dichloroethane	5.47	0.50	ug/L	5.000		109	69.1-153			
1,1-Dichloroethene	5.31	0.50	ug/L	5.000		106	51.2-180			
1,1-Dichloropropene	5.40	0.50	ug/L	5.000		108	77.3-125			
1,2,3-Trichlorobenzene	4.70	2.0	ug/L	5.000		94.0	74-122			B
1,2,3-Trichloropropane	4.84	1.0	ug/L	5.000		96.8	69.8-140			
1,2,4-Trichlorobenzene	4.75	2.0	ug/L	5.000		95.0	73.3-120			
1,2,4-Trimethylbenzene	4.96	0.50	ug/L	5.000		99.2	86.6-121			
1,2-Dibromo-3-chloropropane	4.55	0.50	ug/L	5.000		91.0	42.9-137			
1,2-Dibromoethane (EDB)	5.10	0.50	ug/L	5.000		102	75.2-124			
1,2-Dichlorobenzene	4.84	0.50	ug/L	5.000		96.8	88.3-115			
1,2-Dichloroethane	5.56	0.50	ug/L	5.000		111	69.2-160			
1,2-Dichloropropane	5.01	0.50	ug/L	5.000		100	73.1-128			
1,3,5-Trimethylbenzene	4.91	0.50	ug/L	5.000		98.2	87.3-122			
1,3-Dichlorobenzene	4.72	0.50	ug/L	5.000		94.4	90.7-114			
1,3-Dichloropropane	5.16	0.50	ug/L	5.000		103	76.8-125			
1,4-Dichlorobenzene	4.72	0.50	ug/L	5.000		94.4	88.9-112			
2,2-Dichloropropane	5.19	0.50	ug/L	5.000		104	70.2-147			
2-Butanone	48.3	20	ug/L	50.00		96.6	39.5-160			
2-Chlorotoluene	4.89	0.50	ug/L	5.000		97.8	87.3-118			
2-Hexanone	48.7	20	ug/L	50.00		97.3	30.4-168			
4-Chlorotoluene	4.87	0.50	ug/L	5.000		97.4	87.6-120			
4-Methyl-2-pentanone	50.0	20	ug/L	50.00		99.9	38.8-166			
Acetone	59.7	20	ug/L	50.00		119	30.1-197			
Benzene	4.89	0.50	ug/L	5.000		97.8	68.2-135			
Bromobenzene	4.65	0.50	ug/L	5.000		93.0	84.4-112			
Bromochloromethane	5.07	0.50	ug/L	5.000		101	76.7-138			
Bromodichloromethane	5.21	0.50	ug/L	5.000		104	77.2-140			
Bromoform	5.05	0.50	ug/L	5.000		101	60-142			
Bromomethane	5.53	5.0	ug/L	5.000		111	52.3-196			
Carbon disulfide	5.31	0.50	ug/L	5.000		106	20.2-197			
Carbon tetrachloride	5.15	0.50	ug/L	5.000		103	61.2-157			
Chlorobenzene	5.01	0.50	ug/L	5.000		100	88.7-113			
Chloroethane	5.50	5.0	ug/L	5.000		110	43.1-196			
Chloroform	5.10	0.50	ug/L	5.000		102	68.7-161			
Chloromethane	4.99	2.0	ug/L	5.000		99.8	37.7-187			



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

<b>LCS (A710036-BS2)</b>		Prepared: 10/12/2017 Analyzed: 10/12/2017 14:37								
cis-1,2-Dichloroethene	4.90	0.50	ug/L	5.000		98.0	76.1-127			
cis-1,3-Dichloropropene	5.04	0.50	ug/L	5.000		101	65.5-122			
Dibromochloromethane	5.19	0.50	ug/L	5.000		104	74.8-135			
Dibromomethane	5.21	0.50	ug/L	5.000		104	75-140			
Dichlorodifluoromethane	5.10	0.50	ug/L	5.000		102	68.8-164			
Diisopropyl Ether	5.42	0.50	ug/L	5.000		108	62.1-134			
Ethylbenzene	5.17	0.50	ug/L	5.000		103	86-119			
Hexachlorobutadiene	5.10	2.0	ug/L	5.000		102	54.7-158			
Isopropylbenzene	5.39	0.50	ug/L	5.000		108	86.3-118			
m,p-Xylene	10.2	1.0	ug/L	10.00		102	87.1-118			
Methyl t-Butyl Ether	5.44	0.50	ug/L	5.000		109	58.1-138			
Methylene chloride	5.60	2.0	ug/L	5.000		112	63.5-153			B
Naphthalene	4.86	5.0	ug/L	5.000		97.2	39.3-132			J, B
n-Butyl Benzene	4.88	0.50	ug/L	5.000		97.6	84.7-121			
n-Hexane	5.59	0.50	ug/L	5.000		112	49.5-147			
n-Propyl Benzene	4.74	0.50	ug/L	5.000		94.8	84.2-124			
o-Xylene	5.05	0.50	ug/L	5.000		101	82.8-114			
p-Isopropyltoluene	4.96	0.50	ug/L	5.000		99.2	88.1-116			
sec-Butyl Benzene	4.83	0.50	ug/L	5.000		96.6	85.3-121			
Styrene	4.89	0.50	ug/L	5.000		97.8	84.7-120			B
tert-Butylbenzene	4.90	0.50	ug/L	5.000		98.0	76.2-123			
Tetrachloroethene	4.82	0.50	ug/L	5.000		96.4	79.3-122			
Tetrahydrofuran	25.6	10	ug/L	25.00		102	27.8-152			
Toluene	4.81	0.50	ug/L	5.000		96.2	82.7-117			B
trans-1,2-Dichloroethene	5.30	0.50	ug/L	5.000		106	72.3-135			
trans-1,3-Dichloropropene	5.00	0.50	ug/L	5.000		100	72.5-122			
Trichloroethene	5.18	0.50	ug/L	5.000		104	77-126			
Trichlorofluoromethane	5.54	0.50	ug/L	5.000		111	56-195			
Vinyl chloride	5.16	0.50	ug/L	5.000		103	52.3-186			
Surrogate: Dibromofluoromethane	5.09		ug/L	5.000		102	68.9-141			
Surrogate: Toluene-d8	5.07		ug/L	5.000		101	73.3-114			
Surrogate: 4-Bromofluorobenzene	5.13		ug/L	5.000		103	72.2-114			

<b>Matrix Spike (A710036-MS1)</b>		<b>Source: A174110-01</b> Prepared: 10/11/2017 Analyzed: 10/12/2017 02:00								
1,1,1,2-Tetrachloroethane	5.15	0.50	ug/L	5.000	ND	103	77.8-137			
1,1,1-Trichloroethane	5.57	0.50	ug/L	5.000	ND	111	66.3-167			
1,1,2,2-Tetrachloroethane	5.17	0.50	ug/L	5.000	ND	103	61.3-138			
1,1,2-Trichloroethane	5.22	0.50	ug/L	5.000	ND	104	75.4-132			
1,1,2-Trichlorotrifluoroethane	5.73	0.50	ug/L	5.000	ND	115	57.7-198			
1,1-Dichloroethane	5.64	0.50	ug/L	5.000	ND	113	66.9-154			
1,1-Dichloroethene	5.48	0.50	ug/L	5.000	ND	110	50.1-187			
1,1-Dichloropropene	5.23	0.50	ug/L	5.000	ND	105	74.1-127			
1,2,3-Trichlorobenzene	4.72	2.0	ug/L	5.000	0.0700	93.0	75.4-122			B
1,2,3-Trichloropropane	5.28	1.0	ug/L	5.000	ND	106	68.4-141			



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

Matrix Spike (A710036-MS1)	Source: A174110-01		Prepared: 10/11/2017 Analyzed: 10/12/2017 02:00							
1,2,4-Trichlorobenzene	4.58	2.0	ug/L	5.000	ND	91.6	72.1-121			
1,2,4-Trimethylbenzene	5.25	0.50	ug/L	5.000	0.370	97.6	86.5-121			
1,2-Dibromo-3-chloropropane	5.17	0.50	ug/L	5.000	ND	103	49.9-130			
1,2-Dibromoethane (EDB)	5.16	0.50	ug/L	5.000	ND	103	74.4-124			
1,2-Dichlorobenzene	5.01	0.50	ug/L	5.000	ND	100	88.5-114			
1,2-Dichloroethane	5.98	0.50	ug/L	5.000	ND	120	72.6-161			
1,2-Dichloropropane	5.09	0.50	ug/L	5.000	ND	102	84.7-119			
1,3,5-Trimethylbenzene	5.15	0.50	ug/L	5.000	0.170	99.6	87.3-122			
1,3-Dichlorobenzene	4.79	0.50	ug/L	5.000	ND	95.8	90.1-115			
1,3-Dichloropropane	5.18	0.50	ug/L	5.000	ND	104	76.6-126			
1,4-Dichlorobenzene	4.60	0.50	ug/L	5.000	ND	92.0	87.6-113			
2,2-Dichloropropane	4.24	0.50	ug/L	5.000	ND	84.8	72.3-145			
2-Butanone	54.6	20	ug/L	50.00	ND	109	32.2-170			
2-Chlorotoluene	5.04	0.50	ug/L	5.000	ND	101	87.9-117			
2-Hexanone	52.0	20	ug/L	50.00	ND	104	30.2-168			
4-Chlorotoluene	4.80	0.50	ug/L	5.000	ND	96.0	87.5-120			
4-Methyl-2-pentanone	53.2	20	ug/L	50.00	ND	106	39.1-168			
Acetone	67.2	20	ug/L	50.00	ND	134	31.2-199			
Benzene	5.79	0.50	ug/L	5.000	0.710	102	67.8-136			
Bromobenzene	4.95	0.50	ug/L	5.000	ND	99.0	84.5-111			
Bromochloromethane	5.29	0.50	ug/L	5.000	ND	106	80.9-134			
Bromodichloromethane	5.25	0.50	ug/L	5.000	ND	105	76.1-144			
Bromoform	5.14	0.50	ug/L	5.000	ND	103	60.2-142			
Bromomethane	5.66	5.0	ug/L	5.000	ND	113	50.3-198			
Carbon disulfide	5.35	0.50	ug/L	5.000	ND	107	35.6-196			
Carbon tetrachloride	5.27	0.50	ug/L	5.000	ND	105	69.7-152			
Chlorobenzene	4.93	0.50	ug/L	5.000	ND	98.6	89.3-113			
Chloroethane	5.53	5.0	ug/L	5.000	ND	111	50.2-198			
Chloroform	5.25	0.50	ug/L	5.000	ND	105	66.2-164			
Chloromethane	6.89	2.0	ug/L	5.000	2.23	93.2	46.5-179			
cis-1,2-Dichloroethene	5.08	0.50	ug/L	5.000	ND	102	67.5-137			
cis-1,3-Dichloropropene	4.87	0.50	ug/L	5.000	ND	97.4	63.3-123			
Dibromochloromethane	5.16	0.50	ug/L	5.000	ND	103	76-133			
Dibromomethane	5.26	0.50	ug/L	5.000	ND	105	78.2-139			
Dichlorodifluoromethane	5.26	0.50	ug/L	5.000	ND	105	70.6-150			
Diisopropyl Ether	5.59	0.50	ug/L	5.000	ND	112	57.3-137			
Ethylbenzene	5.83	0.50	ug/L	5.000	0.790	101	87.3-118			
Hexachlorobutadiene	5.04	2.0	ug/L	5.000	ND	101	55.4-161			
Isopropylbenzene	5.66	0.50	ug/L	5.000	0.530	103	89-115			
m,p-Xylene	10.2	1.0	ug/L	10.00	0.370	98.6	88.4-117			
Methyl t-Butyl Ether	5.67	0.50	ug/L	5.000	ND	113	54.4-145			
Methylene chloride	5.70	2.0	ug/L	5.000	ND	114	59.2-154			B
Naphthalene	5.40	5.0	ug/L	5.000	0.690	94.2	43.3-129			B
n-Butyl Benzene	4.95	0.50	ug/L	5.000	ND	99.0	85.9-119			



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Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

<b>Matrix Spike (A710036-MS1)</b>	<b>Source: A174110-01</b>		<b>Prepared: 10/11/2017 Analyzed: 10/12/2017 02:00</b>							
n-Hexane	5.41	0.50	ug/L	5.000	ND	108	44.3-150			
n-Propyl Benzene	5.03	0.50	ug/L	5.000	0.190	96.8	83.7-124			
o-Xylene	5.06	0.50	ug/L	5.000	0.110	99.0	83.9-112			
p-Isopropyltoluene	5.15	0.50	ug/L	5.000	0.160	99.8	89.6-114			
sec-Butyl Benzene	5.03	0.50	ug/L	5.000	0.130	98.0	85.5-120			
Styrene	4.65	0.50	ug/L	5.000	0.100	91.0	79.7-123			B
tert-Butylbenzene	4.99	0.50	ug/L	5.000	ND	99.8	78.6-120			
Tetrachloroethene	4.60	0.50	ug/L	5.000	ND	92.0	78.8-123			
Tetrahydrofuran	26.1	10	ug/L	25.00	ND	104	24.7-155			
Toluene	5.14	0.50	ug/L	5.000	0.320	96.4	81-118			B
trans-1,2-Dichloroethene	5.41	0.50	ug/L	5.000	ND	108	65.3-141			
trans-1,3-Dichloropropene	5.33	0.50	ug/L	5.000	ND	107	73.7-120			
Trichloroethene	5.21	0.50	ug/L	5.000	ND	104	77.1-123			
Trichlorofluoromethane	5.71	0.50	ug/L	5.000	ND	114	44.8-199			
Vinyl chloride	5.53	0.50	ug/L	5.000	ND	111	49.8-180			
<i>Surrogate: Dibromofluoromethane</i>	<i>5.34</i>		<i>ug/L</i>	<i>5.000</i>		<i>107</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>4.99</i>		<i>ug/L</i>	<i>5.000</i>		<i>99.8</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>5.12</i>		<i>ug/L</i>	<i>5.000</i>		<i>102</i>	<i>72.2-114</i>			

<b>Matrix Spike (A710036-MS2)</b>	<b>Source: A174009-05</b>		<b>Prepared: 10/12/2017 Analyzed: 10/12/2017 16:29</b>							
1,1,1,2-Tetrachloroethane	5.18	0.50	ug/L	5.000	ND	104	77.8-137			
1,1,1-Trichloroethane	5.46	0.50	ug/L	5.000	ND	109	66.3-167			
1,1,2,2-Tetrachloroethane	5.14	0.50	ug/L	5.000	ND	103	61.3-138			
1,1,2-Trichloroethane	6.35	0.50	ug/L	5.000	ND	127	75.4-132			
1,1,2-Trichlorotrifluoroethane	5.69	0.50	ug/L	5.000	ND	114	57.7-198			
1,1-Dichloroethane	5.67	0.50	ug/L	5.000	ND	113	66.9-154			
1,1-Dichloroethene	5.50	0.50	ug/L	5.000	ND	110	50.1-187			
1,1-Dichloropropene	5.43	0.50	ug/L	5.000	ND	109	74.1-127			
1,2,3-Trichlorobenzene	4.60	2.0	ug/L	5.000	ND	92.0	75.4-122			B
1,2,3-Trichloropropane	5.54	1.0	ug/L	5.000	ND	111	68.4-141			
1,2,4-Trichlorobenzene	4.67	2.0	ug/L	5.000	ND	93.4	72.1-121			
1,2,4-Trimethylbenzene	4.93	0.50	ug/L	5.000	ND	98.6	86.5-121			
1,2-Dibromo-3-chloropropane	4.94	0.50	ug/L	5.000	ND	98.8	49.9-130			
1,2-Dibromoethane (EDB)	5.37	0.50	ug/L	5.000	ND	107	74.4-124			
1,2-Dichlorobenzene	4.87	0.50	ug/L	5.000	ND	97.4	88.5-114			
1,2-Dichloroethane	5.90	0.50	ug/L	5.000	ND	118	72.6-161			
1,2-Dichloropropane	5.05	0.50	ug/L	5.000	ND	101	84.7-119			
1,3,5-Trimethylbenzene	4.97	0.50	ug/L	5.000	ND	99.4	87.3-122			
1,3-Dichlorobenzene	4.79	0.50	ug/L	5.000	ND	95.8	90.1-115			
1,3-Dichloropropane	5.25	0.50	ug/L	5.000	ND	105	76.6-126			
1,4-Dichlorobenzene	4.71	0.50	ug/L	5.000	ND	94.2	87.6-113			
2,2-Dichloropropane	5.13	0.50	ug/L	5.000	ND	103	72.3-145			
2-Butanone	54.3	20	ug/L	50.00	ND	109	32.2-170			
2-Chlorotoluene	4.99	0.50	ug/L	5.000	ND	99.8	87.9-117			



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 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

<b>Matrix Spike (A710036-MS2)</b>	<b>Source: A174009-05</b>		<b>Prepared: 10/12/2017 Analyzed: 10/12/2017 16:29</b>							
2-Hexanone	54.0	20	ug/L	50.00	ND	108	30.2-168			
4-Chlorotoluene	5.02	0.50	ug/L	5.000	ND	100	87.5-120			
4-Methyl-2-pentanone	55.9	20	ug/L	50.00	ND	112	39.1-168			
Acetone	64.2	20	ug/L	50.00	ND	128	31.2-199			
Benzene	4.97	0.50	ug/L	5.000	ND	99.4	67.8-136			
Bromobenzene	4.84	0.50	ug/L	5.000	ND	96.8	84.5-111			
Bromochloromethane	5.39	0.50	ug/L	5.000	ND	108	80.9-134			
Bromodichloromethane	5.32	0.50	ug/L	5.000	ND	106	76.1-144			
Bromoform	5.17	0.50	ug/L	5.000	ND	103	60.2-142			
Bromomethane	5.62	5.0	ug/L	5.000	ND	112	50.3-198			
Carbon disulfide	5.45	0.50	ug/L	5.000	ND	109	35.6-196			
Carbon tetrachloride	5.30	0.50	ug/L	5.000	ND	106	69.7-152			
Chlorobenzene	5.00	0.50	ug/L	5.000	ND	100	89.3-113			
Chloroethane	5.59	5.0	ug/L	5.000	ND	112	50.2-198			
Chloroform	5.22	0.50	ug/L	5.000	ND	104	66.2-164			
Chloromethane	5.30	2.0	ug/L	5.000	0.400	98.0	46.5-179			
cis-1,2-Dichloroethene	6.69	0.50	ug/L	5.000	1.75	98.8	67.5-137			
cis-1,3-Dichloropropene	4.99	0.50	ug/L	5.000	ND	99.8	63.3-123			
Dibromochloromethane	5.27	0.50	ug/L	5.000	ND	105	76-133			
Dibromomethane	5.35	0.50	ug/L	5.000	ND	107	78.2-139			
Dichlorodifluoromethane	5.13	0.50	ug/L	5.000	ND	103	70.6-150			
Diisopropyl Ether	5.68	0.50	ug/L	5.000	ND	114	57.3-137			
Ethylbenzene	5.08	0.50	ug/L	5.000	ND	102	87.3-118			
Hexachlorobutadiene	5.08	2.0	ug/L	5.000	ND	102	55.4-161			
Isopropylbenzene	5.19	0.50	ug/L	5.000	ND	104	89-115			
m,p-Xylene	10.0	1.0	ug/L	10.00	ND	100	88.4-117			
Methyl t-Butyl Ether	5.78	0.50	ug/L	5.000	ND	116	54.4-145			
Methylene chloride	5.61	2.0	ug/L	5.000	ND	112	59.2-154			B
Naphthalene	4.83	5.0	ug/L	5.000	ND	96.6	43.3-129			J, B
n-Butyl Benzene	4.87	0.50	ug/L	5.000	ND	97.4	85.9-119			
n-Hexane	5.81	0.50	ug/L	5.000	ND	116	44.3-150			
n-Propyl Benzene	4.80	0.50	ug/L	5.000	ND	96.0	83.7-124			
o-Xylene	4.94	0.50	ug/L	5.000	ND	98.8	83.9-112			
p-Isopropyltoluene	4.94	0.50	ug/L	5.000	ND	98.8	89.6-114			
sec-Butyl Benzene	4.86	0.50	ug/L	5.000	ND	97.2	85.5-120			
Styrene	4.71	0.50	ug/L	5.000	ND	94.2	79.7-123			B
tert-Butylbenzene	4.94	0.50	ug/L	5.000	ND	98.8	78.6-120			
Tetrachloroethene	34.2	0.50	ug/L	5.000	29.7	89.2	78.8-123			
Tetrahydrofuran	28.3	10	ug/L	25.00	ND	113	24.7-155			
Toluene	4.88	0.50	ug/L	5.000	ND	97.6	81-118			B
trans-1,2-Dichloroethene	5.59	0.50	ug/L	5.000	ND	112	65.3-141			
trans-1,3-Dichloropropene	5.23	0.50	ug/L	5.000	ND	105	73.7-120			
Trichloroethene	11.6	0.50	ug/L	5.000	6.33	105	77.1-123			
Trichlorofluoromethane	5.86	0.50	ug/L	5.000	ND	117	44.8-199			



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Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control

Pace Analytical - Madison

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A710036 - EPA 5030B

Matrix Spike (A710036-MS2)	Source: A174009-05	Prepared: 10/12/2017	Analyzed: 10/12/2017 16:29							
Vinyl chloride	5.43	0.50	ug/L	5.000	ND	109	49.8-180			
Surrogate: Dibromofluoromethane	5.28		ug/L	5.000		106	68.9-141			
Surrogate: Toluene-d8	5.03		ug/L	5.000		101	73.3-114			
Surrogate: 4-Bromofluorobenzene	5.12		ug/L	5.000		102	72.2-114			

Matrix Spike Dup (A710036-MSD1)	Source: A174110-01	Prepared: 10/11/2017	Analyzed: 10/12/2017 02:28							
1,1,1,2-Tetrachloroethane	5.06	0.50	ug/L	5.000	ND	101	77.8-137	1.76	20	
1,1,1-Trichloroethane	5.45	0.50	ug/L	5.000	ND	109	66.3-167	2.18	20	
1,1,1,2,2-Tetrachloroethane	5.23	0.50	ug/L	5.000	ND	105	61.3-138	1.15	20	
1,1,2-Trichloroethane	5.23	0.50	ug/L	5.000	ND	105	75.4-132	0.191	20	
1,1,2-Trichlorotrifluoroethane	5.73	0.50	ug/L	5.000	ND	115	57.7-198	0.00	20	
1,1-Dichloroethane	5.64	0.50	ug/L	5.000	ND	113	66.9-154	0.00	20	
1,1-Dichloroethene	5.39	0.50	ug/L	5.000	ND	108	50.1-187	1.66	20	
1,1-Dichloropropene	5.16	0.50	ug/L	5.000	ND	103	74.1-127	1.35	20	
1,2,3-Trichlorobenzene	4.77	2.0	ug/L	5.000	0.0700	94.0	75.4-122	1.07	20	B
1,2,3-Trichloropropane	5.31	1.0	ug/L	5.000	ND	106	68.4-141	0.567	20	
1,2,4-Trichlorobenzene	4.63	2.0	ug/L	5.000	ND	92.6	72.1-121	1.09	20	
1,2,4-Trimethylbenzene	5.03	0.50	ug/L	5.000	0.370	93.2	86.5-121	4.61	20	
1,2-Dibromo-3-chloropropane	5.06	0.50	ug/L	5.000	ND	101	49.9-130	2.15	20	
1,2-Dibromoethane (EDB)	5.20	0.50	ug/L	5.000	ND	104	74.4-124	0.772	20	
1,2-Dichlorobenzene	4.97	0.50	ug/L	5.000	ND	99.4	88.5-114	0.802	20	
1,2-Dichloroethane	5.92	0.50	ug/L	5.000	ND	118	72.6-161	1.01	20	
1,2-Dichloropropane	5.12	0.50	ug/L	5.000	ND	102	84.7-119	0.588	20	
1,3,5-Trimethylbenzene	4.94	0.50	ug/L	5.000	0.170	95.4	87.3-122	4.31	20	
1,3-Dichlorobenzene	4.68	0.50	ug/L	5.000	ND	93.6	90.1-115	2.32	20	
1,3-Dichloropropane	5.20	0.50	ug/L	5.000	ND	104	76.6-126	0.385	20	
1,4-Dichlorobenzene	4.68	0.50	ug/L	5.000	ND	93.6	87.6-113	1.72	20	
2,2-Dichloropropane	4.23	0.50	ug/L	5.000	ND	84.6	72.3-145	0.236	20	
2-Butanone	51.4	20	ug/L	50.00	ND	103	32.2-170	6.08	20	
2-Chlorotoluene	4.94	0.50	ug/L	5.000	ND	98.8	87.9-117	2.00	20	
2-Hexanone	51.3	20	ug/L	50.00	ND	103	30.2-168	1.28	20	
4-Chlorotoluene	4.89	0.50	ug/L	5.000	ND	97.8	87.5-120	1.86	20	
4-Methyl-2-pentanone	53.3	20	ug/L	50.00	ND	107	39.1-168	0.207	20	
Acetone	68.5	20	ug/L	50.00	ND	137	31.2-199	1.99	20	
Benzene	5.70	0.50	ug/L	5.000	0.710	99.8	67.8-136	1.79	20	
Bromobenzene	4.98	0.50	ug/L	5.000	ND	99.6	84.5-111	0.604	20	
Bromochloromethane	5.33	0.50	ug/L	5.000	ND	107	80.9-134	0.753	20	
Bromodichloromethane	5.29	0.50	ug/L	5.000	ND	106	76.1-144	0.759	20	
Bromoform	5.20	0.50	ug/L	5.000	ND	104	60.2-142	1.16	20	
Bromomethane	5.71	5.0	ug/L	5.000	ND	114	50.3-198	0.880	20	
Carbon disulfide	5.34	0.50	ug/L	5.000	ND	107	35.6-196	0.187	20	
Carbon tetrachloride	5.34	0.50	ug/L	5.000	ND	107	69.7-152	1.32	20	
Chlorobenzene	4.91	0.50	ug/L	5.000	ND	98.2	89.3-113	0.407	20	
Chloroethane	5.78	5.0	ug/L	5.000	ND	116	50.2-198	4.42	20	





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Revised Report

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control

Pace Analytical - Madison

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A710036 - EPA 5030B

Matrix Spike Dup (A710036-MSD1) Source: A174110-01 Prepared: 10/11/2017 Analyzed: 10/12/2017 02:28

Chloroform	5.26	0.50	ug/L	5.000	ND	105	66.2-164	0.190	20	
Chloromethane	6.74	2.0	ug/L	5.000	2.23	90.2	46.5-179	3.27	20	
cis-1,2-Dichloroethene	5.06	0.50	ug/L	5.000	ND	101	67.5-137	0.394	20	
cis-1,3-Dichloropropene	4.80	0.50	ug/L	5.000	ND	96.0	63.3-123	1.45	20	
Dibromochloromethane	5.15	0.50	ug/L	5.000	ND	103	76-133	0.194	20	
Dibromomethane	5.35	0.50	ug/L	5.000	ND	107	78.2-139	1.70	20	
Dichlorodifluoromethane	5.56	0.50	ug/L	5.000	ND	111	70.6-150	5.55	20	
Diisopropyl Ether	5.56	0.50	ug/L	5.000	ND	111	57.3-137	0.538	20	
Ethylbenzene	5.77	0.50	ug/L	5.000	0.790	99.6	87.3-118	1.20	20	
Hexachlorobutadiene	5.08	2.0	ug/L	5.000	ND	102	55.4-161	0.791	20	
Isopropylbenzene	5.67	0.50	ug/L	5.000	0.530	103	89-115	0.195	20	
m,p-Xylene	10.2	1.0	ug/L	10.00	0.370	98.3	88.4-117	0.305	20	
Methyl t-Butyl Ether	5.68	0.50	ug/L	5.000	ND	114	54.4-145	0.176	20	
Methylene chloride	5.64	2.0	ug/L	5.000	ND	113	59.2-154	1.06	20	B
Naphthalene	5.51	5.0	ug/L	5.000	0.690	96.4	43.3-129	2.31	20	B
n-Butyl Benzene	4.89	0.50	ug/L	5.000	ND	97.8	85.9-119	1.22	20	
n-Hexane	5.49	0.50	ug/L	5.000	ND	110	44.3-150	1.47	20	
n-Propyl Benzene	5.06	0.50	ug/L	5.000	0.190	97.4	83.7-124	0.618	20	
o-Xylene	5.11	0.50	ug/L	5.000	0.110	100	83.9-112	1.01	20	
p-Isopropyltoluene	5.07	0.50	ug/L	5.000	0.160	98.2	89.6-114	1.62	20	
sec-Butyl Benzene	5.08	0.50	ug/L	5.000	0.130	99.0	85.5-120	1.02	20	
Styrene	4.32	0.50	ug/L	5.000	0.100	84.4	79.7-123	7.53	20	B
tert-Butylbenzene	5.11	0.50	ug/L	5.000	ND	102	78.6-120	2.38	20	
Tetrachloroethene	4.81	0.50	ug/L	5.000	ND	96.2	78.8-123	4.46	20	
Tetrahydrofuran	26.2	10	ug/L	25.00	ND	105	24.7-155	0.268	20	
Toluene	5.12	0.50	ug/L	5.000	0.320	96.0	81-118	0.416	20	B
trans-1,2-Dichloroethene	5.52	0.50	ug/L	5.000	ND	110	65.3-141	2.01	20	
trans-1,3-Dichloropropene	5.21	0.50	ug/L	5.000	ND	104	73.7-120	2.28	20	
Trichloroethene	5.14	0.50	ug/L	5.000	ND	103	77.1-123	1.35	20	
Trichlorofluoromethane	5.77	0.50	ug/L	5.000	ND	115	44.8-199	1.05	20	
Vinyl chloride	5.58	0.50	ug/L	5.000	ND	112	49.8-180	0.900	20	

Surrogate: Dibromofluoromethane	5.38		ug/L	5.000		108	68.9-141			
Surrogate: Toluene-d8	5.08		ug/L	5.000		102	73.3-114			
Surrogate: 4-Bromofluorobenzene	5.12		ug/L	5.000		102	72.2-114			

Matrix Spike Dup (A710036-MSD2) Source: A174009-05 Prepared: 10/12/2017 Analyzed: 10/12/2017 16:57

1,1,1,2-Tetrachloroethane	5.00	0.50	ug/L	5.000	ND	100	77.8-137	3.54	20	
1,1,1-Trichloroethane	5.30	0.50	ug/L	5.000	ND	106	66.3-167	2.97	20	
1,1,1,2,2-Tetrachloroethane	4.86	0.50	ug/L	5.000	ND	97.2	61.3-138	5.60	20	
1,1,2-Trichloroethane	6.23	0.50	ug/L	5.000	ND	125	75.4-132	1.91	20	
1,1,2-Trichlorotrifluoroethane	5.70	0.50	ug/L	5.000	ND	114	57.7-198	0.176	20	
1,1-Dichloroethane	5.50	0.50	ug/L	5.000	ND	110	66.9-154	3.04	20	
1,1-Dichloroethene	5.37	0.50	ug/L	5.000	ND	107	50.1-187	2.39	20	
1,1-Dichloropropene	5.51	0.50	ug/L	5.000	ND	110	74.1-127	1.46	20	



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Revised Report

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control

Pace Analytical - Madison

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A710036 - EPA 5030B

Matrix Spike Dup (A710036-MSD2)	Source: A174009-05		Prepared: 10/12/2017		Analyzed: 10/12/2017 16:57					
1,2,3-Trichlorobenzene	4.64	2.0	ug/L	5.000	ND	92.8	75.4-122	0.866	20	B
1,2,3-Trichloropropane	5.13	1.0	ug/L	5.000	ND	103	68.4-141	7.69	20	
1,2,4-Trichlorobenzene	4.53	2.0	ug/L	5.000	ND	90.6	72.1-121	3.04	20	
1,2,4-Trimethylbenzene	4.85	0.50	ug/L	5.000	ND	97.0	86.5-121	1.64	20	
1,2-Dibromo-3-chloropropane	4.71	0.50	ug/L	5.000	ND	94.2	49.9-130	4.77	20	
1,2-Dibromoethane (EDB)	5.32	0.50	ug/L	5.000	ND	106	74.4-124	0.935	20	
1,2-Dichlorobenzene	4.79	0.50	ug/L	5.000	ND	95.8	88.5-114	1.66	20	
1,2-Dichloroethane	5.63	0.50	ug/L	5.000	ND	113	72.6-161	4.68	20	
1,2-Dichloropropane	4.94	0.50	ug/L	5.000	ND	98.8	84.7-119	2.20	20	
1,3,5-Trimethylbenzene	4.91	0.50	ug/L	5.000	ND	98.2	87.3-122	1.21	20	
1,3-Dichlorobenzene	4.67	0.50	ug/L	5.000	ND	93.4	90.1-115	2.54	20	
1,3-Dichloropropane	5.15	0.50	ug/L	5.000	ND	103	76.6-126	1.92	20	
1,4-Dichlorobenzene	4.61	0.50	ug/L	5.000	ND	92.2	87.6-113	2.15	20	
2,2-Dichloropropane	5.15	0.50	ug/L	5.000	ND	103	72.3-145	0.389	20	
2-Butanone	52.1	20	ug/L	50.00	ND	104	32.2-170	4.14	20	
2-Chlorotoluene	4.86	0.50	ug/L	5.000	ND	97.2	87.9-117	2.64	20	
2-Hexanone	50.7	20	ug/L	50.00	ND	101	30.2-168	6.25	20	
4-Chlorotoluene	4.78	0.50	ug/L	5.000	ND	95.6	87.5-120	4.90	20	
4-Methyl-2-pentanone	52.7	20	ug/L	50.00	ND	105	39.1-168	5.78	20	
Acetone	57.7	20	ug/L	50.00	ND	115	31.2-199	10.7	20	
Benzene	4.93	0.50	ug/L	5.000	ND	98.6	67.8-136	0.808	20	
Bromobenzene	4.75	0.50	ug/L	5.000	ND	95.0	84.5-111	1.88	20	
Bromochloromethane	4.96	0.50	ug/L	5.000	ND	99.2	80.9-134	8.31	20	
Bromodichloromethane	5.12	0.50	ug/L	5.000	ND	102	76.1-144	3.83	20	
Bromoform	4.88	0.50	ug/L	5.000	ND	97.6	60.2-142	5.77	20	
Bromomethane	5.69	5.0	ug/L	5.000	ND	114	50.3-198	1.24	20	
Carbon disulfide	5.27	0.50	ug/L	5.000	ND	105	35.6-196	3.36	20	
Carbon tetrachloride	5.14	0.50	ug/L	5.000	ND	103	69.7-152	3.07	20	
Chlorobenzene	4.84	0.50	ug/L	5.000	ND	96.8	89.3-113	3.25	20	
Chloroethane	5.52	5.0	ug/L	5.000	ND	110	50.2-198	1.26	20	
Chloroform	5.03	0.50	ug/L	5.000	ND	101	66.2-164	3.71	20	
Chloromethane	5.46	2.0	ug/L	5.000	0.400	101	46.5-179	3.21	20	
cis-1,2-Dichloroethene	6.58	0.50	ug/L	5.000	1.75	96.6	67.5-137	2.25	20	
cis-1,3-Dichloropropene	4.79	0.50	ug/L	5.000	ND	95.8	63.3-123	4.09	20	
Dibromochloromethane	5.06	0.50	ug/L	5.000	ND	101	76-133	4.07	20	
Dibromomethane	5.13	0.50	ug/L	5.000	ND	103	78.2-139	4.20	20	
Dichlorodifluoromethane	5.10	0.50	ug/L	5.000	ND	102	70.6-150	0.587	20	
Diisopropyl Ether	5.50	0.50	ug/L	5.000	ND	110	57.3-137	3.22	20	
Ethylbenzene	4.94	0.50	ug/L	5.000	ND	98.8	87.3-118	2.79	20	
Hexachlorobutadiene	5.09	2.0	ug/L	5.000	ND	102	55.4-161	0.197	20	
Isopropylbenzene	5.04	0.50	ug/L	5.000	ND	101	89-115	2.93	20	
m,p-Xylene	9.89	1.0	ug/L	10.00	ND	98.9	88.4-117	1.11	20	
Methyl t-Butyl Ether	5.58	0.50	ug/L	5.000	ND	112	54.4-145	3.52	20	
Methylene chloride	5.37	2.0	ug/L	5.000	ND	107	59.2-154	4.37	20	B



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**Revised Report**

TRC Environmental Corporation, Inc.  
 708 Heartland Trail, Ste 3000  
 Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
 Project Number: 266431  
 Project Manager: Andrew Stehn

**Volatile Organic Compounds by Method 8260 - Purge and Trap - Quality Control**

**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch A710036 - EPA 5030B**

<b>Matrix Spike Dup (A710036-MSD2)</b>	<b>Source: A174009-05</b>		<b>Prepared: 10/12/2017</b>		<b>Analyzed: 10/12/2017 16:57</b>					
Naphthalene	4.93	5.0	ug/L	5.000	ND	98.6	43.3-129	2.05	20	J, B
n-Butyl Benzene	4.82	0.50	ug/L	5.000	ND	96.4	85.9-119	1.03	20	
n-Hexane	5.66	0.50	ug/L	5.000	ND	113	44.3-150	2.62	20	
n-Propyl Benzene	4.73	0.50	ug/L	5.000	ND	94.6	83.7-124	1.47	20	
o-Xylene	4.77	0.50	ug/L	5.000	ND	95.4	83.9-112	3.50	20	
p-Isopropyltoluene	4.80	0.50	ug/L	5.000	ND	96.0	89.6-114	2.87	20	
sec-Butyl Benzene	4.85	0.50	ug/L	5.000	ND	97.0	85.5-120	0.206	20	
Styrene	4.53	0.50	ug/L	5.000	ND	90.6	79.7-123	3.90	20	B
tert-Butylbenzene	4.89	0.50	ug/L	5.000	ND	97.8	78.6-120	1.02	20	
Tetrachloroethene	32.8	0.50	ug/L	5.000	29.7	60.6	78.8-123	38.2	20	M, X
Tetrahydrofuran	26.8	10	ug/L	25.00	ND	107	24.7-155	5.44	20	
Toluene	4.69	0.50	ug/L	5.000	ND	93.8	81-118	3.97	20	B
trans-1,2-Dichloroethene	5.35	0.50	ug/L	5.000	ND	107	65.3-141	4.39	20	
trans-1,3-Dichloropropene	4.92	0.50	ug/L	5.000	ND	98.4	73.7-120	6.11	20	
Trichloroethene	11.1	0.50	ug/L	5.000	6.33	95.4	77.1-123	9.20	20	
Trichlorofluoromethane	5.63	0.50	ug/L	5.000	ND	113	44.8-199	4.00	20	
Vinyl chloride	5.35	0.50	ug/L	5.000	ND	107	49.8-180	1.48	20	
<i>Surrogate: Dibromofluoromethane</i>	<i>5.16</i>		<i>ug/L</i>	<i>5.000</i>		<i>103</i>	<i>68.9-141</i>			
<i>Surrogate: Toluene-d8</i>	<i>4.89</i>		<i>ug/L</i>	<i>5.000</i>		<i>97.8</i>	<i>73.3-114</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>4.94</i>		<i>ug/L</i>	<i>5.000</i>		<i>98.8</i>	<i>72.2-114</i>			



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### Revised Report

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

### Notes and Definitions

- X Precision for the matrix spike duplicate, laboratory control sample duplicate or lab duplicate was outside of control limits.
- S Surrogate recovery was outside of laboratory control limits due to an apparent matrix effect.
- M The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory control limits.
- Ja Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
- J Analyte was detected but is below the reporting limit. The concentration is estimated.
- D Data reported from a dilution
- B Analyte is also detected in the associated method blank.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.
- RPD Relative Percent Difference



**Pace Analytical - ECCS Division**  
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# CHAIN OF CUSTODY

No. 8100

Page: of:

Project Number: 266431 Ph.1				PO Number:				Lab Work Order #: A174110				Report To: ANDREW STEHN					
Project Name: MKC OM+M				Project Location (City, State): Madison, WI				Preservation Codes				Company: TRC ENV.					
Turn Around (check one): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush				If Rush, Report Due Date:				Analyses Requested: B A A A				Address 1: 708 Heartland Tr. ste 3000					
Sampled By (Print): Wesley Brager				Matrix				Total # of Containers				Address 2: Madison, WI 53704					
Sample Description				Collection		Matrix	Total # of Containers	VOCs	TDS	TSS	PCBs	Comments		Lab ID	Lab Receipt Time		
				Date	Time												
MW-6S				10/9/17	0928	W	21	X	X	X	X	Vials <sup>MS/MSD</sup> air bubble <6um		01			
MW-6D				10/9/17	1240	W	3	X				Vial air bubble <6um		02			
MW-17				10/9/17	1010	W	3	X						03			
MW-24				10/9/17	1307	W	4		X	X	X	Plastic Bottles read MW-28		04			
MW-11S				10/9/17	1531	W	4		X	X	X			05			
MW-28				10/10/17	1357	W	4		X	X	X			06			
DUP-05				10/9/17	-	W	7	X	X	X	X	Vial B+C air bubble <6um		07			
FB-01				10/9/17	1508	W	7	X	X	X	X			08			
TRIP Blank				-	-	W	2	X						09			
<b>Preservation Codes</b> A=None B=HCL C=H <sub>2</sub> SO <sub>4</sub> D=HNO <sub>3</sub> E=EnCore F=Methanol G=NaOH O=Other (Indicate)				<b>Other Comments:</b>				Relinquished By: <i>Wesley Brager</i> Date: 10/10/17 Time: 1600				Received By: <i>[Signature]</i> Date: 10-10-17 Time: 1600					
<b>Matrix Codes</b> A=Air S=Soil W=Water O=Other				Custody Seal: <input checked="" type="checkbox"/> NA <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact				Shipped Via: <i>Walsh</i>				Receipt Temp: 2.1°C Thermometer #/ Exp. Date: 160142274 / 1/21/15				Temp Blank: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

October 19, 2017

Jessica Esser  
Pace Analytical Madison  
2525 Advance Road  
Madison, WI 53718

RE: Project: A174110 MADISON KIPP CORP.  
Pace Project No.: 40158484

Dear Jessica Esser:

Enclosed are the analytical results for sample(s) received by the laboratory on October 12, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

---

### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40158484001	A174110-01	Water	10/09/17 09:28	10/12/17 10:21
40158484002	A174110-04	Water	10/09/17 13:07	10/12/17 10:21
40158484003	A174110-05	Water	10/09/17 15:31	10/12/17 10:21
40158484004	A174110-06	Water	10/10/17 13:57	10/12/17 10:21
40158484005	A174110-07	Water	10/09/17 00:00	10/12/17 10:21
40158484006	A174110-08	Water	10/09/17 15:08	10/12/17 10:21

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40158484001	A174110-01	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158484002	A174110-04	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158484003	A174110-05	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158484004	A174110-06	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158484005	A174110-07	SM 2540C	TMK	1
		SM 2540D	JMN	1
40158484006	A174110-08	SM 2540C	TMK	1
		SM 2540D	JMN	1

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

**Sample: A174110-01**      **Lab ID: 40158484001**      Collected: 10/09/17 09:28      Received: 10/12/17 10:21      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>3970</b>	mg/L	20.0	8.7	1		10/16/17 13:57		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>1.2J</b>	mg/L	2.0	0.95	1		10/13/17 11:26		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

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**Sample: A174110-04**      **Lab ID: 40158484002**      Collected: 10/09/17 13:07      Received: 10/12/17 10:21      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>2060</b>	mg/L	20.0	8.7	1		10/16/17 13:58		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>1.0J</b>	mg/L	2.0	0.95	1		10/13/17 11:26		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

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**Sample: A174110-05**      **Lab ID: 40158484003**      Collected: 10/09/17 15:31      Received: 10/12/17 10:21      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>1960</b>	mg/L	20.0	8.7	1		10/16/17 13:58		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>&lt;0.95</b>	mg/L	2.0	0.95	1		10/13/17 11:26		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

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**Sample: A174110-06**      **Lab ID: 40158484004**      Collected: 10/10/17 13:57      Received: 10/12/17 10:21      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>1530</b>	mg/L	20.0	8.7	1		10/16/17 13:58		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>&lt;0.95</b>	mg/L	2.0	0.95	1		10/13/17 11:26		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

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**Sample: A174110-07**      **Lab ID: 40158484005**      Collected: 10/09/17 00:00      Received: 10/12/17 10:21      Matrix: Water

---

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>3910</b>	mg/L	20.0	8.7	1		10/16/17 13:59		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>1.2J</b>	mg/L	2.0	0.95	1		10/13/17 11:26		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

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**Sample: A174110-08**      **Lab ID: 40158484006**      Collected: 10/09/17 15:08      Received: 10/12/17 10:21      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<8.7	mg/L	20.0	8.7	1		10/16/17 13:59		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<0.95	mg/L	2.0	0.95	1		10/13/17 11:27		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

QC Batch: 270732

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 40158484001, 40158484002, 40158484003, 40158484004, 40158484005, 40158484006

METHOD BLANK: 1591659

Matrix: Water

Associated Lab Samples: 40158484001, 40158484002, 40158484003, 40158484004, 40158484005, 40158484006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	10/16/17 13:57	

LABORATORY CONTROL SAMPLE: 1591660

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	553	580	105	80-120	

SAMPLE DUPLICATE: 1591661

Parameter	Units	40158484001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3970	3920	1	5	

SAMPLE DUPLICATE: 1591662

Parameter	Units	40158364001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	638	646	1	5	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

QC Batch: 270533

Analysis Method: SM 2540D

QC Batch Method: SM 2540D

Analysis Description: 2540D Total Suspended Solids

Associated Lab Samples: 40158484001, 40158484002, 40158484003, 40158484004, 40158484005, 40158484006

METHOD BLANK: 1589967

Matrix: Water

Associated Lab Samples: 40158484001, 40158484002, 40158484003, 40158484004, 40158484005, 40158484006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	<0.48	1.0	10/13/17 11:24	

LABORATORY CONTROL SAMPLE: 1589968

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	104	104	80-120	

SAMPLE DUPLICATE: 1589969

Parameter	Units	40158415001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	397	390	2	5	

SAMPLE DUPLICATE: 1589970

Parameter	Units	40158484001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	1.2J	1.4J		5	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

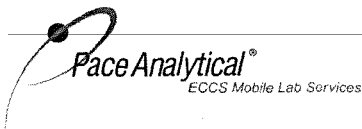
Project: A174110 MADISON KIPP CORP.

Pace Project No.: 40158484

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40158484001	A174110-01	SM 2540C	270732		
40158484002	A174110-04	SM 2540C	270732		
40158484003	A174110-05	SM 2540C	270732		
40158484004	A174110-06	SM 2540C	270732		
40158484005	A174110-07	SM 2540C	270732		
40158484006	A174110-08	SM 2540C	270732		
40158484001	A174110-01	SM 2540D	270533		
40158484002	A174110-04	SM 2540D	270533		
40158484003	A174110-05	SM 2540D	270533		
40158484004	A174110-06	SM 2540D	270533		
40158484005	A174110-07	SM 2540D	270533		
40158484006	A174110-08	SM 2540D	270533		

### REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER

40158484

Pace Analytical - Madison

A174110

SENDING LABORATORY:

Pace Analytical - Madison
2525 Advance Road
Madison, WI 53718
Phone: 608.221.8700
Fax: 608,221,4889
Project Manager: Jessica Esser

RECEIVING LABORATORY:

Pace Analytical
1241 Bellevue Street, Suite 9
Green Bay, WI 54302
Phone : (920) 469-2436
Fax: (920) 469-8827

Handwritten initials 'KR'

Turn around Time: [X] Normal
[ ] Rush

Project Name: Madison Kipp Corp. Semi-Annual Sampling

Table with 5 rows (001-005) and 4 columns: Lab ID, Sample Type, Sampled Time, Laboratory ID, and Comments. Includes details for 2540D - Suspended Solids analysis and containers supplied.

Vertical handwritten notes on the right side, including 'A' and '40158484'.

Handwritten signatures and dates for 'Released By' and 'Received By' at the bottom of the page.



SUBCONTRACT ORDER

Pace Analytical - Madison

A174110

40158484

006

Laboratory ID      Comments

Lab ID: A174110-08

Water

Sampled: 10/09/2017 15:08

[Box] HLP<sup>A</sup> 1-25ml

2540D - Suspended Solids

Subcontracted Analysis - Pace

Dissolved Solids, Total

Containers Supplied:

14\_1000mL Plastic Cool t 14\_250mL Plastic Cool to

Released By	<i>Kari Ann Kille</i>	Date	<i>10/11/17</i>	Received By		Date	
Released By	<i>Alec De</i>	Date	<i>10-12-17</i>	Received By	<i>Susan Myer</i>	Date	<i>10-12-17</i>
			<i>1021</i>		<i>Pace</i>		<i>1021</i>

Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302

**Pace Analytical**

Client Name: Pace, Madison, WI Project #: WO# : 40158484

WO# : 40158484



Courier:  Fed Ex  UPS  Client  Pace Other: Speedee  
Tracking #: SP00742303284709889

Custody Seal on Cooler/Box Present:  yes  no Seals intact:  yes  no

Custody Seal on Samples Present:  yes  no Seals intact:  yes  no

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: N/A Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature: Uncorr: ROT / Corr: \_\_\_\_\_ Biological Tissue is Frozen:  yes  no

Temp Blank Present:  yes  no

Person examining contents:  
Date: 10-12-17  
Initials: [Signature]

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

		Comments:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	4. <u>Sub Work</u> <span style="float: right;"><u>10-12-17</u> <u>SW</u></span>
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12. <u>001-1-250ml # ID unlegible placed by collect time 002-1-250ml # ID unlegible place by</u>
-Includes date/time/ID/Analysis Matrix:	<u>W</u>	
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	<u>Collect time</u> <span style="float: right;"><u>10-12-17</u> <u>SW</u></span>
exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	initial when completed   Lab Std #ID of preservative   Date/Time:
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	<u>[Signature]</u>	

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments   
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

Project Manager Review: AL for DM Date: 10-12-17



2525 Advance Road  
Madison, WI 53718  
608.221.8700 Phone  
608.221.4889 Fax

October 22, 2017

Andrew Stehn  
TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison, WI 53717  
RE: Madison Kipp Corp. Semi-Annual Sampling

Enclosed are the analytical results for the samples received by the laboratory on 10/12/2017.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the 2009 NELAC Standards and the appropriate agencies listed below, unless otherwise noted in the case narrative. This analytical report should be reproduced in its entirety.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica Esser  
Project Manager

Certification List			Expires
ADEQ	Arkansas Department of Environmental Quality	17-065-0	09/26/2018
DODELAP	DOD ELAP Accreditation (A2LA)	3269.01	03/31/2018
ILEPA	Illinois Secondary NELAP Accreditation	003174	04/30/2018
KDHE	Kansas Secondary NELAP Accreditation	E-10384	04/30/2018
LELAP	Louisiana Primary NELAP Accreditation	04165	06/30/2018
NCDEQ	North Carolina Dept. of Environmental Quality Accreditation	688	12/31/2017
NJDEP	New Jersey Secondary NELAP Accreditation	WI004	06/30/2018
ODEQ	Oklahoma Department of Environmental Quality Accreditation	2017-154	08/31/2018
TCEQ	Texas Secondary NELAP Accreditation	T104704504-16-7	11/30/2017
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2018



2525 Advance Road  
Madison, WI 53718  
608.221.8700 Phone  
608.221.4889 Fax

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4D	A174130-01	Water	10/12/2017	10/12/2017

**CASE NARRATIVE**

**Sample Receipt Information:**

1 sample was received on 10/12/2017. Sample was received on ice. Sample was received in acceptable condition.

TSS and TDS analysis was subcontracted to Pace Analytical in Green Bay, WI. Please see their appended report for quality control results.

Please see the chain of custody (COC) document at the end of this report for additional information.





2525 Advance Road  
 Madison, WI 53718  
 608.221.8700 Phone  
 608.221.4889 Fax

TRC Environmental Corporation, Inc. 708 Heartland Trail, Ste 3000 Madison WI, 53717	Project: Madison Kipp Corp. Semi-Annual Sampling Project Number: 266431 Project Manager: Andrew Stehn
---	---

**MW-4D**  
**A174130-01 (Water)** **Date Sampled**  
10/12/2017 14:57

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
---------	--------	--------------------	-----------------------	-------	----------	----------	----------	--------	------------

**Pace Analytical - Madison**

**Polychlorinated Biphenyls by EPA Method 8082**

**Preparation Batch:A710057**

PCB-1016	ND	0.035	0.13	ug/L	1	10/16/2017	10/18/2017 06:11	EPA 8082A	
PCB-1221	ND	0.020	0.25	ug/L	1	10/16/2017	10/18/2017 06:11	EPA 8082A	
PCB-1232	ND	0.037	0.13	ug/L	1	10/16/2017	10/18/2017 06:11	EPA 8082A	
PCB-1242	ND	0.038	0.13	ug/L	1	10/16/2017	10/18/2017 06:11	EPA 8082A	
PCB-1248	ND	0.020	0.13	ug/L	1	10/16/2017	10/18/2017 06:11	EPA 8082A	
PCB-1254	ND	0.0090	0.13	ug/L	1	10/16/2017	10/18/2017 06:11	EPA 8082A	
PCB-1260	ND	0.025	0.13	ug/L	1	10/16/2017	10/18/2017 06:11	EPA 8082A	
Total PCBs	ND	0.038	0.25	ug/L	1	10/16/2017	10/18/2017 06:11	EPA 8082A	

Surrogate: Decachlorobiphenyl 118 %    72.5-127    10/16/2017    10/18/2017 06:11    EPA 8082A

Surrogate: Tetrachloro-meta-xylene 108 %    59.9-118    10/16/2017    10/18/2017 06:11    EPA 8082A

**Pace Analytical-Green Bay, WI**

**SM 2540C**

**Preparation Batch:WET 29857**

<b>Total Dissolved Solids</b>	<b>672</b>	8.7	20.0	mg/L	1	10/18/2017	10/18/2017 14:41	SM 2540C	
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**SM 2540D**

**Preparation Batch:WET 29855**

<b>Total Suspended Solids</b>	<b>5.6</b>	0.95	2.0	mg/L	1	10/18/2017	10/18/2017 11:47	SM 2540D	
-------------------------------	------------	------	-----	------	---	------------	------------------	----------	--



2525 Advance Road  
Madison, WI 53718  
608.221.8700 Phone  
608.221.4889 Fax

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

**Polychlorinated Biphenyls by EPA Method 8082 - Quality Control**  
**Pace Analytical - Madison**

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

**Batch A710057 - EPA 3511**

**Blank (A710057-BLK1)**

Prepared: 10/16/2017 Analyzed: 10/17/2017 21:53

PCB-1016	ND	0.13	ug/L							
PCB-1221	ND	0.25	ug/L							
PCB-1232	ND	0.13	ug/L							
PCB-1242	ND	0.13	ug/L							
PCB-1248	ND	0.13	ug/L							
PCB-1254	ND	0.13	ug/L							
PCB-1260	ND	0.13	ug/L							
Total PCBs	ND	0.25	ug/L							
Surrogate: Decachlorobiphenyl	0.921		ug/L	0.7500		123	72.5-127			
Surrogate: Tetrachloro-meta-xylene	0.766		ug/L	0.7500		102	59.9-118			

**LCS (A710057-BS1)**

Prepared: 10/16/2017 Analyzed: 10/17/2017 21:28

PCB-1016	15.1	0.13	ug/L	12.50		121	70-130			
PCB-1260	16.2	0.13	ug/L	12.50		130	70-130			
Surrogate: Decachlorobiphenyl	0.950		ug/L	0.7500		127	72.5-127			
Surrogate: Tetrachloro-meta-xylene	0.818		ug/L	0.7500		109	59.9-118			

**Matrix Spike (A710057-MS1)**

Source: A174110-01

Prepared: 10/16/2017 Analyzed: 10/18/2017 06:36

PCB-1016	15.7	0.13	ug/L	12.50	ND	125	60-140			
PCB-1260	16.4	0.13	ug/L	12.50	ND	131	60-140			
Surrogate: Decachlorobiphenyl	0.968		ug/L	0.7500		129	72.5-127			S
Surrogate: Tetrachloro-meta-xylene	0.844		ug/L	0.7500		113	59.9-118			

**Matrix Spike Dup (A710057-MSD1)**

Source: A174110-01

Prepared: 10/16/2017 Analyzed: 10/18/2017 07:01

PCB-1016	15.2	0.13	ug/L	12.50	ND	122	60-140	2.72	20	
PCB-1260	15.9	0.13	ug/L	12.50	ND	127	60-140	3.09	20	
Surrogate: Decachlorobiphenyl	0.918		ug/L	0.7500		122	72.5-127			
Surrogate: Tetrachloro-meta-xylene	0.856		ug/L	0.7500		114	59.9-118			



2525 Advance Road  
Madison, WI 53718  
608.221.8700 Phone  
608.221.4889 Fax

TRC Environmental Corporation, Inc.  
708 Heartland Trail, Ste 3000  
Madison WI, 53717

Project: Madison Kipp Corp. Semi-Annual Sampling  
Project Number: 266431  
Project Manager: Andrew Stehn

### Notes and Definitions

- S Surrogate recovery was outside of laboratory control limits due to an apparent matrix effect.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.
- RPD Relative Percent Difference



**Pace Analytical - ECCS Division**  
 2525 Advance Road  
 Madison, WI 53718  
 608-221-8700 (phone)  
 608-221-4889 (fax)

# CHAIN OF CUSTODY

No. 7312

Page: of:

Project Number: 266431 Ph1		PO Number:		Lab Work Order #: A174130			Report To: A. Stehn																				
Project Name: Madison Kipp om+M				Preservation Codes			Company: TRC Madison																				
Project Location (City, State): Madison, WI				Analyses Requested: A A A			Address 1: 708 Heartland Tr. Ste 3000																				
Turn Around (check one): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush				<table border="1" style="width:100%; text-align: center;"> <tr> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Matrix</td> <td style="writing-mode: vertical-rl; transform: rotate(180deg);">Total # of Containers</td> <td>PCBs</td> <td>TPS</td> <td>TSS</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>			Matrix	Total # of Containers	PCBs	TPS	TSS							X	X	X					Address 2: Madison, WI 53717		
Matrix	Total # of Containers	PCBs	TPS				TSS																				
		X	X				X																				
If Rush, Report Due Date:							E-mail Address: astehn@trcsolutions.com			Invoice To:																	
Sampled By (Print): Wesley Braga				Company:			Address 1:																				
Sample Description				Collection		Comments			Lab ID		Lab Receipt Time																
				Date	Time				01																		
MW-4D				10/12/17	1457	W	4	X	X	X																	
<b>Preservation Codes</b> A=None B=HCL C=H <sub>2</sub> SO <sub>4</sub> D=HNO <sub>3</sub> E=EnCore F=Methanol G=NaOH O=Other (Indicate)		<b>Other Comments:</b>		Relinquished By: Wesley Braga Date: 10/12/17 Time: 1615		Received By: Kerri Ann Kileen Date: 10/12/17 Time: 1615		Relinquished By:		Received By:																	
<b>Matrix Codes</b> A=Air S=Soil W=Water O=Other		Custody Seal: <input checked="" type="checkbox"/> NA <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		Shipped Via: Walkin		Receipt Temp: onice j		Thermometer #/ Exp. Date:		Temp Blank: <input type="checkbox"/> Y <input type="checkbox"/> N																	

October 20, 2017

Jessica Esser  
Pace Analytical Madison  
2525 Advance Road  
Madison, WI 53718

RE: Project: A174130 MADISON KIPP CORP.  
Pace Project No.: 40158773

Dear Jessica Esser:

Enclosed are the analytical results for sample(s) received by the laboratory on October 17, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, LLC.

## CERTIFICATIONS

Project: A174130 MADISON KIPP CORP.

Pace Project No.: 40158773

---

### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: A174130 MADISON KIPP CORP.

Pace Project No.: 40158773

---

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40158773001	A174130-01	Water	10/12/17 14:57	10/17/17 10:47

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: A174130 MADISON KIPP CORP.

Pace Project No.: 40158773

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40158773001	A174130-01	SM 2540C	TMK	1
		SM 2540D	JMN	1

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: A174130 MADISON KIPP CORP.

Pace Project No.: 40158773

**Sample: A174130-01**      **Lab ID: 40158773001**      Collected: 10/12/17 14:57      Received: 10/17/17 10:47      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>2540C Total Dissolved Solids</b>	Analytical Method: SM 2540C								
Total Dissolved Solids	<b>672</b>	mg/L	20.0	8.7	1		10/18/17 14:41		
<b>2540D Total Suspended Solids</b>	Analytical Method: SM 2540D								
Total Suspended Solids	<b>5.6</b>	mg/L	2.0	0.95	1		10/18/17 11:47		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: A174130 MADISON KIPP CORP.

Pace Project No.: 40158773

QC Batch: 271065

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 40158773001

METHOD BLANK: 1593533

Matrix: Water

Associated Lab Samples: 40158773001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	10/18/17 14:37	

LABORATORY CONTROL SAMPLE: 1593534

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	553	556	101	80-120	

SAMPLE DUPLICATE: 1593535

Parameter	Units	40158722001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	672	658	2	5	

SAMPLE DUPLICATE: 1593536

Parameter	Units	40158755001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	430	434	1	5	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: A174130 MADISON KIPP CORP.  
Pace Project No.: 40158773

QC Batch: 271029      Analysis Method: SM 2540D  
QC Batch Method: SM 2540D      Analysis Description: 2540D Total Suspended Solids  
Associated Lab Samples: 40158773001

METHOD BLANK: 1593324      Matrix: Water  
Associated Lab Samples: 40158773001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Suspended Solids	mg/L	<0.48	1.0	10/18/17 11:46	

LABORATORY CONTROL SAMPLE: 1593325

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Suspended Solids	mg/L	100	100	100	80-120	

SAMPLE DUPLICATE: 1593327

Parameter	Units	40158789001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	106	117	10	5	R1

SAMPLE DUPLICATE: 1593336

Parameter	Units	40158766001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Suspended Solids	mg/L	29.2	29.6	1	5	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: A174130 MADISON KIPP CORP.

Pace Project No.: 40158773

---

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: A174130 MADISON KIPP CORP.

Pace Project No.: 40158773

---

<b>Lab ID</b>	<b>Sample ID</b>	<b>QC Batch Method</b>	<b>QC Batch</b>	<b>Analytical Method</b>	<b>Analytical Batch</b>
40158773001	A174130-01	SM 2540C	271065		
40158773001	A174130-01	SM 2540D	271029		

### REPORT OF LABORATORY ANALYSIS

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SUBCONTRACT ORDER

Pace Analytical - Madison

A174130

40158773

SENDING LABORATORY:

Pace Analytical - Madison  
2525 Advance Road  
Madison, WI 53718  
Phone: 608.221.8700  
Fax: 608,221,4889  
Project Manager: Jessica Esser

RECEIVING LABORATORY:

Pace Analytical  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302  
Phone : (920) 469-2436  
Fax: (920) 469-8827

RMM

Turn around Time:  Normal 10/26/17

Rush

Project Name: Madison Kipp Corp. Semi-Annual Sampling

		Laboratory ID	Comments
001			
Lab ID: A174130-01	Water	Sampled: 10/12/2017 14:57	f-14p <sup>A</sup> 1-25mlp <sup>A</sup>
2540D - Suspended Solids			
Subcontracted Analysis - Pace			Dissolved Solids, Total
Containers Supplied:			
14_1000mL Plastic Cool t 14_250mL Plastic Cool to			

Released By: Kari Ann Kelly Date: 10/16/17 1530  
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Released By: Spice Dee Date: 10-17-17 1047  
 Received By: Jessica Miller Date: 10-17-17 1047  
Pace

40158773

**Sample Condition Upon Receipt**

Pace Analytical Services, LLC. - Green Bay WI  
1241 Bellevue Street, Suite 9  
Green Bay, WI 54302



**Client Name:** Pace, Madison, WI Project #: WO# : 40158773

**Courier:**  Fed Ex  UPS  Client  Pace Other Dee Dee  
**Tracking #:** SP007423032891733732



**Custody Seal on Cooler/Box Present:**  yes  no **Seals intact:**  yes  no

**Custody Seal on Samples Present:**  yes  no **Seals intact:**  yes  no

**Packing Material:**  Bubble Wrap  Bubble Bags  None  Other

**Thermometer Used:** N/A **Type of Ice:**  Wet  Blue Dry None  Samples on ice, cooling process has begun

**Cooler Temperature:** ROT **Biological Tissue is Frozen:**  yes  no

**Temp Blank Present:**  yes  no

Temp should be above freezing to 6°C.  
Biota Samples may be received at ≤ 0°C.

**Person examining contents:**  
Date: 10-17-17  
Initials: SW

**Comments:**

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	4. <u>Sub Work</u> <span style="float: right;">10-17-17 SW</span>
Samples Arrived within Hold Time: - VOA Samples frozen upon receipt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Date/Time:
<b>Short Hold Time Analysis (&lt;72hr):</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
<b>Rush Turn Around Time Requested:</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used: -Pace Containers Used: -Pace IR Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	9.
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <u>W</u>	12. <u>C + D after IDS</u>
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. <input type="checkbox"/> HNO3 <input type="checkbox"/> H2SO4 <input type="checkbox"/> NaOH <input type="checkbox"/> NaOH + ZnAct <span style="float: right;">10-17-17 SW</span>
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12) exceptions: VOA, coliform, TOC, TOX, TOH, O&G, WIDROW, Phenolics, OTHER:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed: _____ Lab Std #/ID of preservative: _____ Date/Time: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

**Client Notification/ Resolution:** \_\_\_\_\_ If checked, see attached form for additional comments   
Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_

**Project Manager Review:** RMR for DM Date: 10/17/17

# Appendix G Annual Soil Gas Monitoring Laboratory Analytical Report (on CD)

---



8/12/2017

Mr. Andrew Stehn  
TRC Corporation (RMT)  
708 Heartland Trail  
Suite 3000  
Madison WI 53717

Project Name: MKC  
Project #: 266431 Ph. 3  
Workorder #: 1708041

Dear Mr. Andrew Stehn

The following report includes the data for the above referenced project for sample(s) received on 8/2/2017 at Air Toxics Ltd.

The data and associated QC analyzed by TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Eurofins Air Toxics Inc. for your air analysis needs. Eurofins Air Toxics Inc. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Ausha Scott at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Ausha Scott  
Project Manager

**WORK ORDER #: 1708041**

Work Order Summary

<b>CLIENT:</b>	Mr. Andrew Stehn TRC Corporation (RMT) 708 Heartland Trail Suite 3000 Madison, WI 53717	<b>BILL TO:</b>	Accounts Payable/Windsor TRC Companies, Inc. 21 Griffin Rd North Windsor, CT 06095
<b>PHONE:</b>	608-826-3665	<b>P.O. #</b>	223544
<b>FAX:</b>	608-826-3941	<b>PROJECT #</b>	266431 Ph. 3 MKC
<b>DATE RECEIVED:</b>	08/02/2017	<b>CONTACT:</b>	Ausha Scott
<b>DATE COMPLETED:</b>	08/12/2017		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VP-2N	TO-15	4.9 "Hg	4.8 psi
02A	VP-1S	TO-15	5.3 "Hg	5.1 psi
03A	VP-1N	TO-15	4.3 "Hg	4.8 psi
04A	VP-210	TO-15	5.3 "Hg	4.6 psi
05A	VP-102	TO-15	5.3 "Hg	5 psi
06A	DUP	TO-15	5.1 "Hg	5 psi
07A	VP-6	TO-15	6.3 "Hg	4.9 psi
08A	Lab Blank	TO-15	NA	NA
09A	CCV	TO-15	NA	NA
10A	LCS	TO-15	NA	NA
10AA	LCSD	TO-15	NA	NA

CERTIFIED BY:   
 \_\_\_\_\_  
 Technical Director

DATE: 08/12/17

Certification numbers: AZ Licensure AZ0775, NJ NELAP - CA016, NY NELAP - 11291,  
 TX NELAP - T104704434-16-11, UT NELAP CA0093332016-7, VA NELAP - 8113, WA NELAP - C935  
 Name of Accreditation Body: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)  
 Accreditation number: CA300005, Effective date: 10/18/2016, Expiration date: 10/17/2017.

Eurofins Air Toxics Inc. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**EPA Method TO-15**  
**TRC Corporation (RMT)**  
**Workorder# 1708041**

Seven 6 Liter Summa Canister samples were received on August 02, 2017. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

Dilution was performed on samples VP-102, DUP and VP-6 due to the presence of high level target species.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit, LOD, or MDL value. See data page for project specific U-flag definition.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

## Summary of Detected Compounds EPA METHOD TO-15 GC/MS

**Client Sample ID: VP-2N**

**Lab ID#: 1708041-01A**

No Detections Were Found.

**Client Sample ID: VP-1S**

**Lab ID#: 1708041-02A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.82	6.2	5.6	42

**Client Sample ID: VP-1N**

**Lab ID#: 1708041-03A**

No Detections Were Found.

**Client Sample ID: VP-210**

**Lab ID#: 1708041-04A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.80	7.8	5.4	53

**Client Sample ID: VP-102**

**Lab ID#: 1708041-05A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	3.2	75	17	400
Tetrachloroethene	3.2	820	22	5600

**Client Sample ID: DUP**

**Lab ID#: 1708041-06A**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	3.2	74	17	400
Tetrachloroethene	3.2	810	22	5500

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS**

**Client Sample ID: VP-6**

**Lab ID#: 1708041-07A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Trichloroethene	1.7	10	9.1	55
Tetrachloroethene	1.7	380	11	2600



Air Toxics

Client Sample ID: VP-2N

Lab ID#: 1708041-01A

EPA METHOD TO-15 GC/MS

File Name:	3080422	Date of Collection:	7/25/17 9:48:00 AM	
Dil. Factor:	1.58	Date of Analysis:	8/4/17 10:58 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.79	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Trichloroethene	0.79	Not Detected	4.2	Not Detected
Tetrachloroethene	0.79	Not Detected	5.4	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: VP-1S

Lab ID#: 1708041-02A

EPA METHOD TO-15 GC/MS

File Name:	3080423	Date of Collection:	7/25/17 10:23:00 AM	
Dil. Factor:	1.64	Date of Analysis:	8/4/17 11:24 PM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Trichloroethene	0.82	Not Detected	4.4	Not Detected
Tetrachloroethene	0.82	6.2	5.6	42
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: VP-1N

Lab ID#: 1708041-03A

EPA METHOD TO-15 GC/MS

File Name:	3080424	Date of Collection:	7/25/17 11:33:00 AM
Dil. Factor:	1.55	Date of Analysis:	8/4/17 11:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Trichloroethene	0.78	Not Detected	4.2	Not Detected
Tetrachloroethene	0.78	Not Detected	5.2	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	108	70-130



Client Sample ID: VP-210

Lab ID#: 1708041-04A

EPA METHOD TO-15 GC/MS

File Name:	3080425	Date of Collection:	7/25/17 2:19:00 PM
Dil. Factor:	1.59	Date of Analysis:	8/5/17 12:16 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.80	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
Tetrachloroethene	0.80	7.8	5.4	53
trans-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	91	70-130
4-Bromofluorobenzene	117	70-130



Air Toxics

Client Sample ID: VP-102

Lab ID#: 1708041-05A

EPA METHOD TO-15 GC/MS

File Name:	3080426	Date of Collection:	7/25/17 3:55:00 PM	
Dil. Factor:	6.51	Date of Analysis:	8/5/17 12:41 AM	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.2	Not Detected	8.3	Not Detected
cis-1,2-Dichloroethene	3.2	Not Detected	13	Not Detected
Trichloroethene	3.2	75	17	400
Tetrachloroethene	3.2	820	22	5600
trans-1,2-Dichloroethene	3.2	Not Detected	13	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: DUP

Lab ID#: 1708041-06A

EPA METHOD TO-15 GC/MS

File Name:	3080428	Date of Collection:	7/25/17
Dil. Factor:	6.46	Date of Analysis:	8/5/17 01:28 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	3.2	Not Detected	8.2	Not Detected
cis-1,2-Dichloroethene	3.2	Not Detected	13	Not Detected
Trichloroethene	3.2	74	17	400
Tetrachloroethene	3.2	810	22	5500
trans-1,2-Dichloroethene	3.2	Not Detected	13	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	107	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: VP-6

Lab ID#: 1708041-07A

EPA METHOD TO-15 GC/MS

File Name:	3080427	Date of Collection:	7/25/17 5:27:00 PM
Dil. Factor:	3.38	Date of Analysis:	8/5/17 01:04 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	1.7	Not Detected	4.3	Not Detected
cis-1,2-Dichloroethene	1.7	Not Detected	6.7	Not Detected
Trichloroethene	1.7	10	9.1	55
Tetrachloroethene	1.7	380	11	2600
trans-1,2-Dichloroethene	1.7	Not Detected	6.7	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1708041-08A

EPA METHOD TO-15 GC/MS

File Name:	3080411	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	8/4/17 01:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1708041-09A

EPA METHOD TO-15 GC/MS

File Name:	3080402	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/17 07:54 AM

Compound	%Recovery
Vinyl Chloride	90
cis-1,2-Dichloroethene	85
Trichloroethene	96
Tetrachloroethene	101
trans-1,2-Dichloroethene	103

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: LCS

Lab ID#: 1708041-10A

EPA METHOD TO-15 GC/MS

File Name:	3080403	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/17 08:16 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	98	70-130
cis-1,2-Dichloroethene	100	70-130
Trichloroethene	106	70-130
Tetrachloroethene	108	70-130
trans-1,2-Dichloroethene	95	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCSD

Lab ID#: 1708041-10AA

EPA METHOD TO-15 GC/MS

File Name:	3080404	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 8/4/17 09:30 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	98	70-130
cis-1,2-Dichloroethene	99	70-130
Trichloroethene	103	70-130
Tetrachloroethene	106	70-130
trans-1,2-Dichloroethene	96	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	84	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130



### Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

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FOLSOM, CA 95630-4719  
(916) 985-1000 FAX (916) 985-1020

Page 1 of 1

Project Manager Ausha Scott  
 Collected by: (Print and Sign) Andrew Stehn  
 Company JRC Email astehn@jrcsolutions.com  
 Address 708 Heartland Tol <sup>Suite 300</sup> City Madison State WI Zip 53717  
 Phone 608-826-3465 Fax \_\_\_\_\_

<b>Project Info:</b> P.O. # <u>103979</u> Project # <u>266431 Ph. 3</u> Project Name <u>MKC</u>	<b>Turn Around Time:</b> <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	<small>Lab Use Only</small> Pressurized by: Date: Pressurization Gas: N <sub>2</sub> He
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Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
01A	VP-2N	6L0728	07/25/17	9:06-9:48	To-15 (see notes)	-30 inHg	-6 inHg		
02A	VP-15	<del>6L</del> 31134	07/25/17	9:43-10:23	To-15 (see notes)	-29 inHg	-6 inHg		
03A	VP-1N	34226	07/25/17	10:45-11:33	To-15 (see notes)	-30 inHg	-6 inHg		
04A	VP-210	<del>12593</del> 12953	07/25/17	13:30-14:19	To-15 (see notes)	-30 inHg	-6 inHg		
05A	VP-102	6L0684	07/25/17	15:14-15:55	To-15 (see notes)	-29 inHg	-5.5 inHg		
06A	DUP	6L0422	07/25/17		To-15 (see notes)	-30 inHg	-5.5 inHg		
07A	VP-6	6L0875	07/25/17	16:47-17:27	To-15 (see notes)	-30 inHg	-6 inHg		

Relinquished by: (signature) <u>Andrew Stehn</u> Date/Time <u>07/26/17 0800</u>	Received by: (signature) <u>R &amp; EATC</u> Date/Time <u>080217 0935</u>	<b>Notes:</b> Samples should be analyzed using method To-15 for PCE, TCE, VC, cis-1,2 dichloroethene, and trans-1,2, dichloroethene. Please note one drop of water may have gone in canister 12953.
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____	

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	<u>FedEx</u>		<u>NA</u>	<u>Good</u>	Yes No <u>None</u>	<u>1708041</u>