



Soil Vapor Extraction Shut Down & Monitoring Well Network Modification Work Plan

BRRTS #02-13-578015 & #02-13-558625

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*Prepared For
Madison Kipp Corporation
Madison, Wisconsin*

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Section 1

Introduction

1.1 Background

Madison-Kipp Corporation's (MKC) facility located at 201 Waubesa Street facility (Site) in Madison, Wisconsin (Figure 1) currently has four open BRRTS sites with Wisconsin Department of Natural Resources' (WDNR) Remediation and Redevelopment Program. This Work Plan describes changes to the soil vapor extraction (SVE) system, which is managed under BRRTS #02-13-578015, and the groundwater remediation and monitoring network, which is managed under BRRTS #02-13-558625. The proposed changes were discussed in a meeting between MKC, WDNR, and MKC's consultant, TRC Environmental Corporation (TRC), on April 9, 2018.

1.2 SVE Summary

MKC operates a SVE system to extract and treat soil vapors emanating from soils and groundwater impacted with volatile organic compounds (VOCs). The system was installed to reduce the mass of VOCs at the Site and to reduce the potential for off-site vapor migration. The SVE system includes nine extraction wells installed along the east-northeast portion of the Site. Following the completion of a pilot test in 2012, the permanent system began operation in May 2013 and has operated since that time.

Recent evaluation of the SVE system, described below, indicates that shutdown the SVE system may be appropriate. MKC proposes a temporary shutdown of the SVE system to determine if its continued operation is necessary.

1.2.1 SVE Influent Vapor Data Review

SVE influent vapor-phase VOC concentrations were measured starting in 2012 to estimate VOC mass removal. (Data on the SVE influent vapor was not collected from 2015 through early 2016). A trend plot of influent concentrations and a table (Table A-1) summarizing the calculated annual removal rates between 2016 and 2017 are included in Appendix A.

From 2012 through 2014, there were occasional times when the influent had low total VOC concentrations, but these were always followed by increases in total VOC concentrations. Since data collection began again in 2016, influent concentrations have remained at historic lows.

Starting in September 2016, calculated VOC mass removal rates have ranged between 0.0002 to 0.002 pounds per hour, which is significantly lower than the anticipated removal rate 0.37 pounds per hour (estimated based on the pilot test operations) (Arcadis, 2012). Removal rates are calculated using average SVE system flow rates and total VOC concentrations.

The review of the influent vapor data indicates that the current operation of the SVE system is no longer removing an appreciable mass of VOCs.

1.2.2 Soil Vapor Probe Data Review

Soil gas monitoring is currently completed on an annual basis at the site to evaluate potential for off-site vapor migration. Six vapor probes are sampled: VP-1N, VP-1S, VP-2N, VP-6, VP-102, and VP-210. One other probe, VP-126, was recently removed from the monitoring program because concentrations had been consistently below 1 parts per billion by volume (ppbv). The soil gas monitoring results through July 2017 are included in Table 1.

Results collected from the vapor probes while the SVE system is operating show the following for chlorinated VOCs:

- No exceedances for non-residential deep soil screening levels at VP-6.
- One location, VP-102, has exceeded the residential deep soil screening levels in recent years (2016 and 2017).
- Concentrations at VP-1N, VP-1S, VP-2N, and VP-210 do not exceed the residential deep soil screening levels.

Soil vapor extraction well SVE-2 is located in close proximity to VP-102 (approximately 15 feet – Figure 2). Monthly PID readings from SVE-2 have not indicated significant VOC concentrations removed by this well over the last few years; generally, concentrations were less than three parts per million (ppm) (Table 2).

Between September and December 2017, vapor samples were collected from SVE-2 to determine the effect the SVE system was having on soil gas vapors near VP-102. A summary of the data collected from extraction well SVE-2 is included in Appendix A (Table A-2). The concentrations of VOCs in SVE-2 indicate that VOCs are being removed by this extraction well, but that the overall removal rates remain minimal.

The review of the soil vapor concentration data and associated extraction well data indicate that SVE system may not be having an appreciable influence on off-site soil vapor migration.

1.3 Groundwater Remediation System Summary

MKC also operates a groundwater extraction and treatment system (GETS) to capture and remediate groundwater impacted with tetrachloroethene (PCE). This system was installed in 2015 and has operated since that time. The GETS produce gases that are treated with granular activated carbon (GAC) to remove VOCs prior to discharge to the atmosphere. The emissions from the GETS and the SVE system are combined prior to treatment with GAC. Because of this combined treatment process, the proposed shut down of the SVE system also requires adjustments to the GETS.

MKC maintains a groundwater monitoring well network to evaluate the PCE impacts to groundwater at the Site and to evaluate the performance of the GETS. One well in the monitoring network (MW-21D2) should be abandoned, and abandonment of this well is included in this Work Plan.

1.4 Purpose and Scope

TRC, on behalf of MKC, has prepared this Work Plan to evaluate shutdown of the SVE system. The Work Plan summarizes proposed changes to the SVE system, associated changes to the GETS, and a description of the monitoring program and decision criteria for shutdown of the SVE system. As noted above, the Work Plan also includes proposal to abandon groundwater monitoring well MW-21D2.

Section 2

SVE and GETS Operation Adjustments

2.1 SVE Shutdown and Equipment Isolation

The SVE shutdown evaluation will be completed over six-months beginning in October 2018. During this time the SVE system will be shut down and temporarily isolated from the GETS. Based on the current design for the GETS and SVE air/gas treatment, a complete separation is not recommended in case there is a need for the SVE system to continue operating after this six-month trial.

To begin the shutdown process of the SVE system, the hand-off-auto (HOA) switch on the exterior control panel of the SVE building will be turned from auto to off. Valving inside the GETS building that connects the SVE influent vapor to the granular activated carbon treatment vessels will be closed to restrict back flow from occurring from the GETS operations. Valves on the nine SVE extraction well headers will also be closed to ensure that soil vapor does not move into or out of the ground during the system shutdown.

2.2 GETS System Adjustments

The GETS will continue to operate during the six-month SVE shutdown, but the groundwater extraction rate will be adjusted from 45 gallons per minute (gpm) to 40 gpm. The lower flow rate is needed to prevent water from being pulled from the air stripper into the vapor-phase GAC. During normal operation (GETS running at 45 gpm and SVE in operation), the vapors extracted from the SVE system and those generated from the air stripper are combined and treated with GAC. To ensure proper operation of the air stripper, a booster blower is used to overcome back pressure from the SVE system. At times when the SVE system shuts down, the booster blower can pull water from the top portion of the air stripper into the vapor phase carbon. Decreasing the groundwater flow rate while the SVE system is shut down will prevent this problem. Adjustment to the groundwater extraction rate is done through the human machine interface (HMI) screen in the GETS building.

If the six-month trial indicates that the SVE system is no longer needed, permanent separation of the SVE from the GETS can be made to allow it to operate at the design rate of 45 gpm. These alterations will involve separating the SVE system and the GETS and changing operational parameters to ensure appropriate treatment efficiency is met.

Section 3

Soil Gas Sampling Plan

3.1 Sampling Plan Overview

A soil gas monitoring program has been developed to monitor the effects that shutting down the SVE system will have on off-site vapor migration and accumulation of VOC mass in the soil gas. The network of soil gas vapor probes constructed around the boundary of MKC's property are shown on Figure 2. TRC plans to sample the seven vapor probes outlined in the Soil Gas Sampling Summary table below, which includes VP-1S, VP-3, VP-6, VP-102, VP-126, VP-210, and VP-237.

Soil Gas Sampling Summary

SAMPLE ID	SAMPLE TYPE	ANALYSIS	PARAMETER LIST	SAMPLE DURATION	SAMPLE SIZE	OCT. 2018	NOV. 2018	DEC. 2018	JAN. 2019	FEB. 2019	MAR. 2019
VP-1S	Soil Gas Sample	TO-15	PCE, TCE, Cis-1,2 DCE, Trans-1,2 DCE, VC	30 Minute	6L	X	X	X	TBD ¹	TBD ¹	TBD ¹
VP-3	Soil Gas Sample	TO-15	PCE, TCE, Cis-1,2 DCE, Trans-1,2 DCE, VC	30 Minute	6L	X	X	X	TBD ¹	TBD ¹	TBD ¹
VP-6	Soil Gas Sample	TO-15	PCE, TCE, Cis-1,2 DCE, Trans-1,2 DCE, VC	30 Minute	6L	X	X	X	TBD ¹	TBD ¹	TBD ¹
VP-102	Soil Gas Sample	TO-15	PCE, TCE, Cis-1,2 DCE, Trans-1,2 DCE, VC	30 Minute	6L	X	X	X	TBD ¹	TBD ¹	TBD ¹
VP-126	Soil Gas Sample	TO-15	PCE, TCE, Cis-1,2 DCE, Trans-1,2 DCE, VC	30 Minute	6L	X	X	X	TBD ¹	TBD ¹	TBD ¹
VP-210	Soil Gas Sample	TO-15	PCE, TCE, Cis-1,2 DCE, Trans-1,2 DCE, VC	30 Minute	6L	X	X	X	TBD ¹	TBD ¹	TBD ¹
VP-237	Soil Gas Sample	TO-15	PCE, TCE, Cis-1,2 DCE, Trans-1,2 DCE, VC	30 Minute	6L	X	X	X	TBD ¹	TBD ¹	TBD ¹
DUP	Soil Gas Sample	TO-15	PCE, TCE, Cis-1,2 DCE, Trans-1,2 DCE, VC	30 Minute	6L	X	X	X	X	X	X

Note:

1. The number of sample locations for the January through March 2019 events will be dependent on results from the October to December 2018 monitoring events.

The current annual monitoring program includes vapor probes: VP-1N, VP-1S, VP-2N, VP-6, VP-102, and VP-210. The proposed soil gas sampling plan changes the vapor probes that will be used for the 2018 annual monitoring event (October) and the subsequent post-shutdown monitoring events. The changes to the sampling plan primarily are to better document the soil gas conditions around the entire Site by including VP-3 and VP-126 spaced along the eastern edge of the Site and VP-237 on the western edge of the Site. The previous program focusing on specific areas of the eastern edge of the Site (e.g., the VP-1 cluster), which may not fully capture soil gas conditions post-shutdown (e.g., between SVE-4 and SVE-5 which will be documented by the addition of sampling VP-126).

Each probe in the Soil Gas Sampling Plan will be sampled in October before the SVE is shut down (baseline), and then again in November and December 2018 (post-shutdown). The November and December results will be compared to the baseline October 2018 results and, depending on the results, a modified sampling program with fewer vapor probes may be provided to the WDNR prior to the January monitoring event (see Section 6). Monthly sampling will continue through March 2019.

3.2 Sample Collection and Analysis

Each soil gas sample will be collected from an existing vapor probe which is capped and covered when not being sampled. A soil gas sample will be collected from each sample point using a 6-liter SUMMA[®] canister with 30-minute regulator. Each SUMMA[®] canister will be shipped via common carrier under proper chain-of-custody and submitted to Eurofins Air Toxics Laboratory in Folsom, CA (or equivalent) for TO-15 analysis for a select list of chlorinated VOCs to include: PCE, trichloroethene (TCE), cis-1,2 dichloroethene (DCE), trans-1,2-DCE, and vinyl chloride. A duplicate soil gas sample will also be taken during each sampling event as a quality assurance measure.

3.3 Sampling Procedure

Prior to sample collection, leak testing procedures will be performed to make sure representative samples are collected. The following sub-sections outline the quality assurance tests to be completed. For all the tests, if a leak is detected, corrective action will be taken to eliminate the leak prior to initiating collection of the sample.

3.3.1 Helium Shroud Test

The helium shroud test consists of sealing a shroud around the vapor probe prior to sampling. A piece of tubing is connected to the sample port and extended to the exterior of the shroud through a small sealed hole. The shroud is filled with helium until a concentration of 20% to 50% by volume has been introduced into the shroud (measured

by a hand-held helium monitor). While the shroud is filled with helium, the subsurface soil gas is tested for helium by direct connection between the soil vapor probe and a hand-held helium monitor. If the helium concentration of the soil gas is below 5%, the port is sealed, and sampling can be completed (Section III Part B, WDNR 2014).

3.3.2 Shut-In Test

A leak test (shut-in test) will be completed prior to the collection of each sample to test the SUMMA® canister and associated connections (sample train) for potential leaks at the connection points. If a leak is detected, the connections will be tightened and/or reassembled to ensure no ambient air is drawn in during the soil gas sampling process. After any tightening/reassembling, the shut-in test will be performed again until it is passed. In the event a canister cannot pass the leak detection test, it will not be used, and another canister will be used instead.

Section 4

Future SVE Operation Scenarios

Depending on the monthly soil gas sample results, there could be multiple courses of action to take either during, or following, this six-month trial. Results may indicate that the system can be permanently shut down and decommissioned, a pulse operation may be needed, and/or continued operation of the SVE system may be required. TRC will evaluate the results and work with WDNR to determine the most effective SVE operating plan. The main two scenarios and recommendations are summarized below.

4.1 Scenario 1: Soil Gas Concentrations – No Change

Conclusion:

Results from monthly soil gas monitoring between November 2018 and March 2019 indicate minimal to no change to the subsurface soil gas concentrations with the SVE system shutdown.

This conclusion would be determined by comparison of the post-shutdown data to the October 2018 (baseline) and historical soil gas data.

Recommendation:

A data evaluation will be completed by TRC, and in collaboration with WDNR to ensure that all parties are in agreement on the conclusions drawn from the analytical results. The recommendation would be to permanently shut down the SVE system.

4.2 Scenario 2: Soil Gas Concentrations – Change

Conclusion:

Results from monthly soil gas monitoring at any time between November 2018 and March 2019 indicate an increase to the subsurface soil gas concentrations with the SVE system shut down. An increase would represent that (1) an appreciable mass of VOCs could still be removed by the SVE system and/or (2) the SVE system may be having an appreciable influence on off-site soil vapor migration.

This conclusion would be determined by comparison of the post-shutdown data to the October 2018 (baseline) and historical soil gas data.

Recommendation:

The appropriate response action will depend on the location and magnitude of the subsurface soil gas concentration increase(s). If changes to the concentrations occur that indicate that additional mass removal is possible or that vapor migration could be influenced, the SVE system could be turned on. The start-up could be for a period of time (pulse – roughly six months or less with subsequent shutdown monitoring) or continuous operation (more than six months with annual monitoring). TRC, on behalf of MKC, and WDNR would discuss the planned start-up and operational period to ensure that all parties are in agreement about next steps if subsurface soil gas concentrations increase.

Section 5

MW-21D2 Abandonment

The current site groundwater monitoring network includes 42 monitoring wells and four (4) multi-port monitoring wells with a total of 20 sampling intervals among them. The current site monitoring network is summarized in Table 3 and shown on Figure 3.

Long well screens have the potential for serving as conduits for vertical contaminant transport. In layered aquifer systems, such as at the Site, long well screens can cross-connect aquifer layers with different hydraulic heads and/or different concentrations of contamination. When this happens, water can move freely up or down the well screen, with the potential for contaminant migration.

Monitoring well MW-21D2 has a 60-foot-long well screen and it is screened across portions of both the Upper Wonewoc and Lower Wonewoc formations from approximately 110 feet to 170 feet bgs. Because of its long screen, MW-21D2 has the potential to facilitate vertical contaminant transport and therefore should be abandoned. MW-21D2 will be abandoned in accordance with NR 141 by grouting from the bottom up using a tremie pipe. TRC proposes to abandon MW-21D2 in 2018 upon approval from WDNR.

There are no changes to the 2018 groundwater monitoring plan (Table 3) as a result of this abandonment. MW21D2 is used for water level gauging, but there are sufficient adjacent data points for water levels in the Wonewoc formation.

Section 6

Reporting

6.1 Results of Soil Gas Sampling

The analytical results from each sampling event will be evaluated upon receipt by TRC. Analytical results, along with pertinent sampling event information, will be submitted to WDNR. The timing of the submittals will be as follows.

- After each sampling event, laboratory analytical results and pertinent sampling event information (as e-mailed notes) will be submitted to WDNR via e-mail. If warranted, TRC, MKC, and WDNR will have a call to discuss the monthly results.
- The results from the first three events (October through December 2018) will be summarized in a letter-style report to the WDNR. The submittal will include the modified sampling plan for January through March 2019.
- Following the January through March 2019 sampling events, a final report will be submitted documenting the shutdown process, monitoring results, and recommendations for the next steps regarding the SVE system, including one of the scenarios discussed in Section 4.

If at any time communications between TRC, MKC, and WDNR warrant a modification to this Work Plan, a modification or revision to the Work Plan will be prepared and submitted for WDNR review. This could include changes such as a restart of the SVE system prior to March 2019 if warranted based on the soil gas sampling results.

6.2 Monitoring Well Abandonment

Within 60 days of completion of the well abandonment, a letter report will be prepared and submitted to WDNR that briefly describes that the abandonments were properly completed and any other pertinent information concerning the field work. A copy of the well abandonment forms will be included as required under WAC Chapter NR 141.25 (4).

Section 7

References

Arcadis U.S., Inc. 2012. Soil Vapor Extraction Pilot Test Summary and Phase I System Design, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin. February 2012.

WDNR. 2014. Sub-slab Vapor Sample Procedures. RR-986. July 2014.

Table 1
Soil Gas Analytical Results Summary
Madison-Kipp Corporation
Madison, Wisconsin

SAMPLE LOCATION SAMPLE DATE	DEEP SOIL GAS		VP-1N	VP-1N	VP-1N	VP-1N	VP-1N	VP-1N	VP-1N	VP-1N
	NON-RES. ^{1,2}	RES. ^{1,2}	9/17/2009	10/26/2012	7/15/2013	1/29/2014	7/22/2014	7/22/2015	7/20/2016	7/25/2017
VOC										
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 ³	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 1
Soil Gas Analytical Results Summary
Madison-Kipp Corporation
Madison, Wisconsin

SAMPLE LOCATION SAMPLE DATE	DEEP SOIL GAS		VP-1S	VP-1S	VP-1S	VP-1S	VP-1S	VP-1S	VP-1S	VP-1S
	NON-RES. ^{1,2}	RES. ^{1,2}	9/17/2009	10/26/2012	7/15/2013	1/29/2014	7/22/2014	7/22/2015	7/20/2016	07/25/2017
VOC										
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 ³	11,000	65	--	< 0.15	< 0.16	< 0.14	< 0.16	< 0.014	< 0.21	< 0.076

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VOCs = Volatile Organic Compounds

Table 1
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. ^{1,2}	RES. ^{1,2}	9/17/2009	10/26/2012	7/15/2013	1/29/2014	7/22/2014	7/22/2015	7/20/2016	07/25/2017
VOC										
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 ³	11,000	65	NA	< 0.93	< 0.39	< 0.14	< 0.18	< 0.016	< 0.21	< 0.073

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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. ^{1,2}	RES. ^{1,2}	9/17/2009	10/26/2012	7/15/2013	1/29/2014	7/22/2014	7/22/2015
VOC								
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 ³	11,000	65	--	< 0.14	< 0.31	< 0.14	< 0.15	< 0.017

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 1
Soil Gas Analytical Results Summary
Madison-Kipp Corporation
Madison, Wisconsin

SAMPLE LOCATION SAMPLE DATE	DEEP SOIL GAS		VP-3	VP-3	VP-3 (DUP)	VP-3	VP-4	VP-4	VP-4	VP-4
	NON-RES. ^{1,2}	RES. ^{1,2}	3/30/2012	10/26/2012	10/26/2012	7/22/2014	3/30/2012	10/26/2012	7/23/2014	7/24/2015
VOC										
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 ³	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

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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 1
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. ^{1,2}	RES. ^{1,2}	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
VOC													
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 ³	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

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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 1
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. ^{1,2}	RES. ^{1,2}	11/25/2011	10/24/2012	1/29/2014	7/23/2014	7/22/2015	7/20/2016	07/25/2017	07/25/2017
VOC										
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 ³	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/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

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AF = Attenuation Factor

NE = Criteria Not Established

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DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 1
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. ^{1,2}	RES. ^{1,2}	11/25/2011	10/24/2012	7/15/2013	1/29/2014	7/23/2014
VOC							
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 ³	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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AF = Attenuation Factor

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DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 1
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)
	NON-RES. ^{1,2}	RES. ^{1,2}	11/25/2011	10/24/2012	7/15/2013	1/29/2014	7/23/2014	7/24/2015	7/20/2016	7/20/2016
VOC										
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 ³	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

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DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 1
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. ^{1,2}	RES. ^{1,2}	11/25/2011	10/24/2012	7/16/2013	1/30/2014
VOC						
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 ³	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

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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 1
Soil Gas Analytical Results Summary
Madison-Kipp Corporation
Madison, Wisconsin

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

Footnotes:

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<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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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 1
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. ^{1,2}	RES. ^{1,2}	11/25/2011	10/25/2012	7/16/2013	1/30/2014	7/23/2014
VOC							
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 ³	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

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AF = Attenuation Factor

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NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 1
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
	NON-RES. ^{1,2}	RES. ^{1,2}	11/25/2011	10/25/2012	7/17/2013	1/30/2014	7/23/2014	7/24/2015	11/25/2011	10/25/2012	7/17/2013
VOC											
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 ³	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

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NE = Criteria Not Established

NA= Not Analyzed

DUP = Duplicate sample collected

Res. = Residential

VAL = Vapor Action Level

VOCs = Volatile Organic Compounds

Table 1
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. ^{1,2}	RES. ^{1,2}	11/28/2011	7/17/2013	1/30/2014	7/23/2014	7/23/2014	7/24/2015
VOC								
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 ³	11,000	65	< 0.085 *IS	< 0.15	< 0.13	< 0.16	< 0.16	< 0.017

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 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-1	1/18/2016	-74.8	18.2	0.0
SVE-1	1/27/2016	-68.0	15.0	--
SVE-1	2/1/2016	-68.0	18.4	--
SVE-1	2/8/2016	-81.6	18.1	0.3
SVE-1	2/15/2016	-74.8	14.9	--
SVE-1	2/23/2016	-74.8	18.2	--
SVE-1	3/3/2016	-74.8	18.2	--
SVE-1	3/7/2016	-74.8	18.2	0.0
SVE-1	3/14/2016	-74.8	18.2	--
SVE-1	3/21/2016	-81.6	14.7	--
SVE-1	3/28/2016	-81.6	18.1	--
SVE-1	4/6/2016 - 4/7/2016	-81.6	18.1	3.2
SVE-1	4/11/2016	-74.8	18.2	--
SVE-1	4/18/2016	-68.0	15.0	--
SVE-1	4/26/2016	-68.0	15.0	--
SVE-1	5/4/2016	-74.8	14.9	0.1
SVE-1	5/11/2016	-81.6	14.7	--
SVE-1	5/20/2016	-74.8	14.9	--
SVE-1	5/24/2016	-74.8	14.9	--
SVE-1	6/1/2016	-81.6	14.7	--
SVE-1	6/7/2016	-74.8	14.9	0.0
SVE-1	6/14/2016	-74.8	14.9	--
SVE-1	6/21/2016	-74.8	14.9	--
SVE-1	6/27/2016	-81.6	14.7	--
SVE-1	7/6/2016	-81.6	14.7	--
SVE-1	7/15/2016	-74.8	14.9	--
SVE-1	7/20/2016	-74.8	14.9	0.0
SVE-1	7/27/2016	-81.6	14.7	--
SVE-1	8/1/2016	-74.8	14.9	--
SVE-1	8/8/2016	-74.8	18.2	0.2
SVE-1	8/15/2016	-81.6	14.7	--
SVE-1	8/26/2016	-81.6	14.7	--
SVE-1	8/30/2016	-81.6	27.6	--
SVE-1	9/9/2016	-81.6	14.7	0.0
SVE-1	9/12/2016	-81.6	14.7	--
SVE-1	9/20/2016	-81.6	14.7	--
SVE-1	9/27/2016	-81.6	14.7	--
SVE-1	10/6/2016	-81.6	14.7	--
SVE-1	10/10/2016	-81.6	14.7	24.5
SVE-1	10/21/2016	-81.6	14.7	--
SVE-1	10/25/2016	-81.6	14.7	--
SVE-1	11/1/2016	-81.6	33.0	--
SVE-1	11/7/2016	-81.6	14.7	0.0
SVE-1	11/18/2016	-74.8	14.9	--
SVE-1	11/21/2016	-74.8	14.9	--
SVE-1	11/28/2016	-	-	-
SVE-1	12/7/2016	-95.2	14.4	0.0
SVE-1	12/16/2016	-81.6	14.7	--
SVE-1	12/21/2016	-74.8	21.1	--
SVE-1	1/4/2017	-74.8	14.9	--
SVE-1	1/13/2017	-74.8	16.3	--
SVE-1	1/18/2017	-81.6	14.7	0.0
SVE-1	1/23/2017	-69.3	15.0	--
SVE-1	2/8/2017	-88.4	17.9	0.0
SVE-1	2/13/2017	-74.8	14.9	--

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-1	2/20/2017	-74.8	14.9	--
SVE-1	2/27/2017	-74.8	14.9	--
SVE-1	3/6/2017	-74.8	14.9	--
SVE-1	3/7/2017	-102.0	17.5	0.6
SVE-1	3/14/2017	-74.8	14.9	--
SVE-1	3/20/2017	-72.1	15.0	--
SVE-1	3/27/2017	-74.8	14.9	--
SVE-1	4/4/2017	-74.8	14.9	--
SVE-1	4/6/2017	-102.0	14.3	0.1
SVE-1	4/12/2017	-95.2	14.4	--
SVE-1	4/20/2017	-95.2	17.7	--
SVE-1	4/25/2017	-88.4	20.6	--
SVE-1	5/5/2017	-102.0	14.3	0.0
SVE-1	5/9/2017	-95.2	14.4	--
SVE-1	5/17/2017	-88.4	14.6	--
SVE-1	5/22/2017	-95.2	14.4	--
SVE-1	6/2/2017	-88.4	14.6	--
SVE-1	6/7/2017	-81.6	18.1	0.2
SVE-1	6/14/2017	-81.6	18.1	--
SVE-1	6/21/2017	-95.2	14.4	--
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-1	1/4/2018	-81.6	29.5	--
SVE-1	1/8/2018	-68.0	41.2	0.0
SVE-1	1/11/2018	-81.6	14.7	--
SVE-1	1/17/2018	-81.6	14.7	--
SVE-1	1/24/2018	-68.0	15.0	--
SVE-1	2/6/2018	-81.6	10.4	0.3
SVE-1	2/7/2018	-68.0	15.0	--
SVE-1	2/13/2018	-68.0	15.0	--
SVE-1	2/21/2018	-68.0	15.0	--
SVE-1	2/28/2018	-81.6	14.7	--
SVE-1	3/6/2018	-81.6	14.7	--

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-1	3/8/2018	-81.6	18.1	0.2
SVE-1	3/13/2018	-68.0	15.0	--
SVE-1	3/19/2018	-68.0	15.0	--
SVE-1	3/26/2018	-68.0	15.0	--
SVE-1	4/3/2018	-81.6	14.7	0.4
SVE-1	4/4/2018	-68.0	15.0	--
SVE-1	4/10/2018	-68.0	15.0	--
SVE-1	4/17/2018	-74.8	14.9	--
SVE-1	4/27/2018	-102.0	14.3	--
SVE-1	5/8/2018	-95.2	14.4	0.4
SVE-1	5/9/2018	-74.8	14.9	--
SVE-1	5/17/2018	-68.0	15.0	--
SVE-1	5/25/2018	-81.6	14.7	--
SVE-1	5/31/2018	-61.2	15.2	--
SVE-1	6/6/2018	-95.2	14.4	0.2
SVE-1	6/12/2018	-61.2	15.2	--
SVE-1	6/19/2018	-65.3	15.1	--
SVE-1	6/27/2018	-66.6	15.1	--
SVE-2	1/18/2016	-68.0	28.1	0.0
SVE-2	1/27/2016	-61.2	24.0	--
SVE-2	2/1/2016	-61.2	26.3	--
SVE-2	2/8/2016	-68.0	26.1	0.2
SVE-2	2/15/2016	-68.0	26.1	--
SVE-2	2/23/2016	-68.0	28.1	--
SVE-2	3/3/2016	-68.0	28.1	--
SVE-2	3/7/2016	-68.0	28.1	0.2
SVE-2	3/14/2016	-68.0	26.1	--
SVE-2	3/21/2016	-68.0	33.6	--
SVE-2	3/28/2016	-68.0	31.9	--
SVE-2	4/6/2016 - 4/7/2016	-68.0	26.1	1.6
SVE-2	4/11/2016	-68.0	28.1	--
SVE-2	4/18/2016	-61.2	34.0	--
SVE-2	4/26/2016	-54.4	24.3	--
SVE-2	5/4/2016	-68.0	33.6	0.1
SVE-2	5/11/2016	-74.8	33.3	--
SVE-2	5/20/2016	-68.0	35.3	--
SVE-2	5/24/2016	-68.0	23.8	--
SVE-2	6/1/2016	-81.6	31.3	--
SVE-2	6/7/2016	-68.0	33.6	0.0
SVE-2	6/14/2016	-68.0	30.1	--
SVE-2	6/21/2016	-68.0	31.9	--
SVE-2	6/27/2016	-81.6	23.3	--
SVE-2	7/6/2016	-68.0	23.8	--
SVE-2	7/15/2016	-68.0	28.1	--
SVE-2	7/20/2016	-68.0	28.1	0.0
SVE-2	7/27/2016	-74.8	31.6	--
SVE-2	8/1/2016	-68.0	26.1	--
SVE-2	8/8/2016	-68.0	0.0	0.3
SVE-2	8/15/2016	-68.0	_(1)	--
SVE-2	8/26/2016	-81.6	23.3	--
SVE-2	8/30/2016	-74.8	23.5	--
SVE-2	9/9/2016	-74.8	23.5	0.0
SVE-2	9/12/2016	-74.8	23.5	--
SVE-2	9/20/2016	-74.8	23.5	--
SVE-2	9/27/2016	-81.6	23.3	--
SVE-2	10/6/2016	-68.0	28.1	--
SVE-2	10/10/2016	-74.8	24.0	6.7

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-2	10/21/2016	-74.8	25.8	--
SVE-2	10/25/2016	-74.8	27.9	--
SVE-2	11/1/2016	-81.6	23.3	--
SVE-2	11/7/2016	-81.6	25.5	0.3
SVE-2	11/18/2016	-68.0	23.8	--
SVE-2	11/21/2016	-68.0	28.1	--
SVE-2	11/28/2016	-	-	-
SVE-2	12/7/2016	-88.4	25.3	0.0
SVE-2	12/16/2016	-68.0	28.1	--
SVE-2	12/21/2016	-68.0	26.1	--
SVE-2	1/4/2017	-68.0	23.8	--
SVE-2	1/13/2017	-68.0	24.7	--
SVE-2	1/18/2017	-74.8	23.5	0.0
SVE-2	1/23/2017	-69.3	23.7	--
SVE-2	2/8/2017	-81.6	25.5	0.0
SVE-2	2/13/2017	-68.0	24.7	--
SVE-2	2/20/2017	-68.0	23.8	--
SVE-2	2/27/2017	-74.8	23.5	--
SVE-2	3/6/2017	-72.1	23.6	--
SVE-2	3/7/2017	-95.2	20.4	0.9
SVE-2	3/14/2017	-70.7	23.7	--
SVE-2	3/20/2017	-70.7	23.7	--
SVE-2	3/27/2017	-69.3	23.7	--
SVE-2	4/4/2017	-74.8	23.5	--
SVE-2	4/6/2017	-95.2	20.4	0.2
SVE-2	4/12/2017	-88.4	20.6	--
SVE-2	4/20/2017	-95.2	22.8	--
SVE-2	4/25/2017	-81.6	25.5	--
SVE-2	5/5/2017	-95.2	0.0	0.0
SVE-2	5/9/2017	-95.2	0.0	--
SVE-2	5/17/2017	-81.6	14.7	--
SVE-2	5/22/2017	-88.4	17.9	--
SVE-2	6/2/2017	-81.6	14.7	--
SVE-2	6/7/2017	-68.0	18.4	0.2
SVE-2	6/14/2017	-68.0	15.0	--
SVE-2	6/21/2017	-81.6	0.0	--
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	--

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
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 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
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	--
SVE-2	1/4/2018	-70.7	32.8	--
SVE-2	1/8/2018	-54.4	37.6	0.0
SVE-2	1/11/2018	-54.4	36.0	--
SVE-2	1/17/2018	-54.4	36.0	--
SVE-2	1/24/2018	-54.4	36.0	--
SVE-2	2/6/2018	-68.0	33.6	2.8
SVE-2	2/7/2018	-68.0	35.3	--
SVE-2	2/13/2018	-66.6	35.3	--
SVE-2	2/21/2018	-68.0	35.3	--
SVE-2	2/28/2018	-68.0	#VALUE!	--
SVE-2	3/6/2018	-68.0	35.3	--
SVE-2	3/8/2018	-68.0	23.8	0.3
SVE-2	3/13/2018	-68.0	35.3	--
SVE-2	3/19/2018	-68.0	35.3	--
SVE-2	3/26/2018	-68.0	35.3	--
SVE-2	4/3/2018	-68.0	26.1	1.4
SVE-2	4/4/2018	-68.0	35.3	--
SVE-2	4/10/2018	-68.0	35.3	--
SVE-2	4/17/2018	-68.0	35.3	--
SVE-2	4/27/2018	-88.4	20.6	--
SVE-2	5/8/2018	-88.4	--	0.9
SVE-2	5/9/2018	-74.8	--	--
SVE-2	5/17/2018	-54.4	--	--
SVE-2	5/25/2018	-68.0	--	--
SVE-2	5/31/2018	-54.4	36.0	--
SVE-2	6/6/2018	-81.6	18.1	0.6
SVE-2	6/12/2018	-68.0	35.3	--
SVE-2	6/19/2018	-54.4	34.3	--
SVE-2	6/27/2018	-66.6	32.0	--
SVE-3	1/18/2016	-74.8	14.9	0.0
SVE-3	1/27/2016	-68.0	15.0	--
SVE-3	2/1/2016	-68.0	18.4	--
SVE-3	2/8/2016	-81.6	14.7	1.3
SVE-3	2/15/2016	-81.6	20.8	--
SVE-3	2/23/2016	-74.8	14.9	--
SVE-3	3/3/2016	-74.8	14.9	--
SVE-3	3/7/2016	-74.8	14.9	1.0
SVE-3	3/14/2016	-74.8	18.2	--
SVE-3	3/21/2016	-81.6	14.7	--
SVE-3	3/28/2016	-81.6	20.8	--
SVE-3	4/6/2016 - 4/7/2016	-81.6	10.4	9.0
SVE-3	4/11/2016	-81.6	14.7	--
SVE-3	4/18/2016	-68.0	15.0	--
SVE-3	4/26/2016	-74.8	14.9	--
SVE-3	5/4/2016	-81.6	14.7	2.4
SVE-3	5/11/2016	-81.6	10.4	--
SVE-3	5/20/2016	-81.6	14.7	--
SVE-3	5/24/2016	-81.6	18.1	--
SVE-3	6/1/2016	-88.4	10.3	--
SVE-3	6/7/2016	-81.6	14.7	0.7
SVE-3	6/14/2016	-81.6	18.1	--
SVE-3	6/21/2016	-81.6	18.1	--

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
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 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-3	6/27/2016	-81.6	14.7	--
SVE-3	7/6/2016	-81.6	14.7	--
SVE-3	7/15/2016	-81.6	20.8	--
SVE-3	7/20/2016	-74.8	18.2	0.0
SVE-3	7/27/2016	-81.6	10.4	--
SVE-3	8/1/2016	-81.6	14.7	--
SVE-3	8/8/2016	-81.6	14.7	0.4
SVE-3	8/15/2016	-81.6	14.7	--
SVE-3	8/26/2016	-81.6	14.7	--
SVE-3	8/30/2016	-81.6	10.4	--
SVE-3	9/9/2016	-88.4	10.3	0.1
SVE-3	9/12/2016	-81.6	10.4	--
SVE-3	9/20/2016	-81.6	14.7	--
SVE-3	9/27/2016	-88.4	10.3	--
SVE-3	10/6/2016	-81.6	10.4	--
SVE-3	10/10/2016	-85.0	14.7	2.9
SVE-3	10/21/2016	-81.6	14.7	--
SVE-3	10/25/2016	-81.6	14.7	--
SVE-3	11/1/2016	-88.4	0	--
SVE-3	11/7/2016	-88.4	14.6	1.8
SVE-3	11/18/2016	-74.8	14.9	--
SVE-3	11/21/2016	-81.6	14.7	--
SVE-3	11/28/2016	-	-	-
SVE-3	12/7/2016	-95.2	6.5	0.6
SVE-3	12/16/2016	-81.6	18.1	--
SVE-3	12/21/2016	-81.6	18.1	--
SVE-3	1/4/2017	-74.8	14.9	--
SVE-3	1/13/2017	-74.8	14.9	--
SVE-3	1/18/2017	-88.4	10.3	0.7
SVE-3	1/23/2017	-70.7	15.0	--
SVE-3	2/8/2017	-88.4	10.3	0.0
SVE-3	2/13/2017	-74.8	14.9	--
SVE-3	2/20/2017	-74.8	14.9	--
SVE-3	2/27/2017	-74.8	14.9	--
SVE-3	3/6/2017	-74.8	14.9	--
SVE-3	3/7/2017	-102.0	10.1	2.1
SVE-3	3/14/2017	-74.8	14.9	--
SVE-3	3/20/2017	-74.8	14.9	--
SVE-3	3/27/2017	-74.8	14.9	--
SVE-3	4/4/2017	-77.5	14.8	--
SVE-3	4/6/2017	-108.8	10.0	1.3
SVE-3	4/12/2017	-95.2	10.2	--
SVE-3	4/20/2017	-102.0	10.1	--
SVE-3	4/25/2017	-95.2	10.2	--
SVE-3	5/5/2017	-102.0	17.5	0.0
SVE-3	5/9/2017	102.0	0.0	--
SVE-3	5/17/2017	-95.2	14.4	--
SVE-3	5/22/2017	-95.2	0.0	--
SVE-3	6/2/2017	-95.2	28.9	--
SVE-3	6/7/2017	-81.6	18.1	0.4
SVE-3	6/14/2017	-81.6	18.1	--
SVE-3	6/21/2017	-95.2	10.2	--
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	--

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
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-3	1/4/2018	-95.2	31.3	--
SVE-3	1/8/2018	-61.2	48.0	0.0
SVE-3	1/11/2018	-81.6	14.7	--
SVE-3	1/17/2018	54.4	17.5	--
SVE-3	1/24/2018	-68.0	15.0	--
SVE-3	2/6/2018	-74.8	14.9	1.8
SVE-3	2/7/2018	-68.0	15.0	--
SVE-3	2/13/2018	-68.0	15.0	--
SVE-3	2/21/2018	-68.0	15.0	--
SVE-3	2/28/2018	-74.8	14.9	--
SVE-3	3/6/2018	-68.0	15.0	--
SVE-3	3/8/2018	-81.6	14.7	2.1
SVE-3	3/13/2018	-68.0	15.0	--
SVE-3	3/19/2018	-68.0	15.0	--
SVE-3	3/26/2018	-68.0	15.0	--
SVE-3	4/3/2018	-81.6	14.7	2.1
SVE-3	4/4/2018	-68.0	15.0	--
SVE-3	4/10/2018	-68.0	15.0	--
SVE-3	4/17/2018	-68.0	15.0	--
SVE-3	4/27/2018	-95.2	10.2	--
SVE-3	5/8/2018	-95.2	32.3	1.3
SVE-3	5/9/2018	-74.8	14.9	--
SVE-3	5/17/2018	-54.4	24.3	--
SVE-3	5/25/2018	-68.0	15.0	--
SVE-3	5/31/2018	-68.0	15.0	--
SVE-3	6/6/2018	-88.4	20.6	1.9
SVE-3	6/12/2018	-63.9	15.1	--
SVE-3	6/19/2018	-61.2	15.2	--
SVE-3	6/27/2018	-66.6	0.0	--
SVE-4	1/18/2016	-68.0	21.3	0.5
SVE-4	1/27/2016	-68.0	21.3	--
SVE-4	2/1/2016	-68.0	21.3	--
SVE-4	2/8/2016	-68.0	21.3	1.7
SVE-4	2/15/2016	-74.8	18.2	--
SVE-4	2/23/2016	-68.0	23.8	--
SVE-4	3/3/2016	-68.0	21.3	--

Table 2
Summary of SVE Operations - January 1, 2016 - June 30, 2018
Madison Kipp Corporation
201 Waubesa Street
Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-4	3/7/2016	-68.0	23.8	1.0
SVE-4	3/14/2016	-68.0	21.3	--
SVE-4	3/21/2016	-74.8	23.5	--
SVE-4	3/28/2016	-74.8	25.8	--
SVE-4	4/6/2016 - 4/7/2016	-68.0	26.1	3.2
SVE-4	4/11/2016	-68.0	26.1	--
SVE-4	4/18/2016	-68.0	23.8	--
SVE-4	4/26/2016	-68.0	23.8	--
SVE-4	5/4/2016	-74.8	23.5	5.3
SVE-4	5/11/2016	-74.8	23.5	--
SVE-4	5/20/2016	-74.8	23.5	--
SVE-4	5/24/2016	-68.0	23.8	--
SVE-4	6/1/2016	-81.6	25.5	--
SVE-4	6/7/2016	-74.8	23.5	1.8
SVE-4	6/14/2016	-68.0	23.8	--
SVE-4	6/21/2016	-68.0	23.8	--
SVE-4	6/27/2016	-74.8	23.5	--
SVE-4	7/6/2016	-74.8	23.5	--
SVE-4	7/15/2016	-68.0	23.8	--
SVE-4	7/20/2016	-68.0	21.3	0.0
SVE-4	7/27/2016	-74.8	23.5	--
SVE-4	8/1/2016	-68.0	23.8	--
SVE-4	8/8/2016	-68.0	23.8	0.4
SVE-4	8/15/2016	-68.0	23.8	--
SVE-4	8/26/2016	-74.8	23.5	--
SVE-4	8/30/2016	-74.8	23.5	--
SVE-4	9/9/2016	-74.8	23.5	1.2
SVE-4	9/12/2016	-74.8	23.5	--
SVE-4	9/20/2016	-74.8	25.8	--
SVE-4	9/27/2016	-81.6	23.3	--
SVE-4	10/6/2016	-74.8	23.5	--
SVE-4	10/10/2016	-88.4	23.1	18.9
SVE-4	10/21/2016	-74.8	23.5	--
SVE-4	10/25/2016	-74.8	23.5	--
SVE-4	11/1/2016	-81.6	23.3	--
SVE-4	11/7/2016	-74.8	25.8	7.7
SVE-4	11/18/2016	-68.0	23.8	--
SVE-4	11/21/2016	-68.0	23.8	--
SVE-4	11/28/2016	-	-	-
SVE-4	12/7/2016	-102.0	26.7	2.0
SVE-4	12/16/2016	-68.0	26.1	--
SVE-4	12/21/2016	-68.0	21.3	--
SVE-4	1/4/2017	-68.0	23.8	--
SVE-4	1/13/2017	-68.0	23.3	--
SVE-4	1/18/2017	-74.8	23.5	1.1
SVE-4	1/23/2017	-69.3	23.7	--
SVE-4	2/8/2017	-81.6	23.3	0.0
SVE-4	2/13/2017	-68.0	23.8	--
SVE-4	2/20/2017	-68.0	23.8	--
SVE-4	2/27/2017	-74.8	23.5	--
SVE-4	3/6/2017	-74.8	23.5	--
SVE-4	3/7/2017	-95.2	20.4	2.7
SVE-4	3/14/2017	-74.8	23.5	--
SVE-4	3/20/2017	-70.7	23.7	--
SVE-4	3/27/2017	-74.8	23.5	--
SVE-4	4/4/2017	-74.8	24.0	--
SVE-4	4/6/2017	-95.2	25.0	1.0

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H ₂ O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-4	4/12/2017	-88.4	23.1	--
SVE-4	4/20/2017	-95.2	22.8	--
SVE-4	4/25/2017	-81.6	23.3	--
SVE-4	5/5/2017	-88.4	20.6	0.0
SVE-4	5/9/2017	-95.2	20.4	--
SVE-4	5/17/2017	-81.6	20.8	--
SVE-4	5/22/2017	-88.4	20.6	--
SVE-4	6/2/2017	-81.6	20.8	--
SVE-4	6/7/2017	-68.0	23.8	0.3
SVE-4	6/14/2017	-68.0	23.8	--
SVE-4	6/21/2017	-81.6	23.3	--
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	--
SVE-4	1/4/2018	-95.2	31.9	--
SVE-4	1/8/2018	-54.4	18.8	0.0
SVE-4	1/11/2018	-61.2	21.5	--
SVE-4	1/17/2018	-68.0	21.3	--
SVE-4	1/24/2018	-68.0	21.3	--
SVE-4	2/6/2018	-68.0	21.3	1.2
SVE-4	2/7/2018	-68.0	21.3	--
SVE-4	2/13/2018	-68.0	21.3	--
SVE-4	2/21/2018	-68.0	21.3	--
SVE-4	2/28/2018	-68.0	21.3	--
SVE-4	3/6/2018	-68.0	21.3	--
SVE-4	3/8/2018	-68.0	23.8	1.1
SVE-4	3/13/2018	-68.0	21.3	--
SVE-4	3/19/2018	-68.0	21.3	--
SVE-4	3/26/2018	-68.0	21.3	--
SVE-4	4/3/2018	-74.8	23.5	1.4
SVE-4	4/4/2018	-68.0	21.3	--
SVE-4	4/10/2018	-68.0	21.3	--
SVE-4	4/17/2018	-68.0	21.3	--
SVE-4	4/27/2018	-88.4	23.1	--
SVE-4	5/8/2018	-88.4	23.1	1.1
SVE-4	5/9/2018	-74.8	21.1	--
SVE-4	5/17/2018	-61.2	24.0	--

Table 2
Summary of SVE Operations - January 1, 2016 - June 30, 2018
Madison Kipp Corporation
201 Waubesa Street
Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-4	5/25/2018	-61.2	21.5	--
SVE-4	5/31/2018	-61.2	24.0	--
SVE-4	6/6/2018	-81.6	20.8	1.8
SVE-4	6/12/2018	-61.2	24.0	--
SVE-4	6/19/2018	-63.9	21.4	--
SVE-4	6/27/2018	-66.6	23.8	--
SVE-5	1/18/2016	-74.8	23.5	0.0
SVE-5	1/27/2016	-68.0	23.8	--
SVE-5	2/1/2016	-68.0	21.3	--
SVE-5	2/8/2016	-81.6	23.3	0.8
SVE-5	2/15/2016	-81.6	23.3	--
SVE-5	2/23/2016	-74.8	21.1	--
SVE-5	3/3/2016	-74.8	21.1	--
SVE-5	3/7/2016	-74.8	21.1	0.3
SVE-5	3/14/2016	-74.8	21.1	--
SVE-5	3/21/2016	-81.6	20.8	--
SVE-5	3/28/2016	-81.6	23.3	--
SVE-5	4/6/2016 - 4/7/2016	-81.6	23.3	6.5
SVE-5	4/11/2016	-74.8	23.5	--
SVE-5	4/18/2016	-68.0	21.3	--
SVE-5	4/26/2016	-68.0	23.8	--
SVE-5	5/4/2016	-81.6	23.3	0.5
SVE-5	5/11/2016	-81.6	23.3	--
SVE-5	5/20/2016	-81.6	23.3	--
SVE-5	5/24/2016	-74.8	21.1	--
SVE-5	6/1/2016	-81.6	23.3	--
SVE-5	6/7/2016	-81.6	23.3	0.8
SVE-5	6/14/2016	-81.6	23.3	--
SVE-5	6/21/2016	-74.8	23.5	--
SVE-5	6/27/2016	-81.6	25.5	--
SVE-5	7/6/2016	-68.0	26.1	--
SVE-5	7/15/2016	-74.8	23.5	--
SVE-5	7/20/2016	-74.8	23.5	0.0
SVE-5	7/27/2016	-81.6	23.3	--
SVE-5	8/1/2016	-74.8	23.5	--
SVE-5	8/8/2016	-74.8	23.5	0.3
SVE-5	8/15/2016	-81.6	23.3	--
SVE-5	8/26/2016	-81.6	23.3	--
SVE-5	8/30/2016	-81.6	25.5	--
SVE-5	9/9/2016	-81.6	25.5	0.0
SVE-5	9/12/2016	-81.6	25.5	--
SVE-5	9/20/2016	-81.6	25.5	--
SVE-5	9/27/2016	-88.4	25.3	--
SVE-5	10/6/2016	-81.6	23.3	--
SVE-5	10/10/2016	-81.6	23.3	31.7
SVE-5	10/21/2016	-81.6	25.5	--
SVE-5	10/25/2016	-81.6	25.5	--
SVE-5	11/1/2016	-81.6	25.5	--
SVE-5	11/7/2016	-81.6	25.5	1.1
SVE-5	11/18/2016	-74.8	23.5	--
SVE-5	11/21/2016	-81.6	23.3	--
SVE-5	11/28/2016	-	-	-
SVE-5	12/7/2016	-95.2	27.0	0.2
SVE-5	12/16/2016	-81.6	25.5	--
SVE-5	12/21/2016	-74.8	27.9	--
SVE-5	1/4/2017	-74.8	23.5	--
SVE-5	1/13/2017	-74.8	24.0	--

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-5	1/18/2017	-81.6	23.3	0.0
SVE-5	1/23/2017	-69.3	23.7	--
SVE-5	2/8/2017	-88.4	25.3	0.0
SVE-5	2/13/2017	-74.8	24.5	--
SVE-5	2/20/2017	-74.8	23.5	--
SVE-5	2/27/2017	-70.7	25.9	--
SVE-5	3/6/2017	-74.8	23.5	--
SVE-5	3/7/2017	-102.0	24.7	0.7
SVE-5	3/14/2017	-70.7	23.7	--
SVE-5	3/20/2017	-74.8	24.5	--
SVE-5	3/27/2017	-74.8	23.5	--
SVE-5	4/4/2017	-74.8	23.5	--
SVE-5	4/6/2017	-102.0	24.7	0.0
SVE-5	4/12/2017	-95.2	25.0	--
SVE-5	4/20/2017	-95.2	27.0	--
SVE-5	4/25/2017	-95.2	25.0	--
SVE-5	5/5/2017	-95.2	27.0	0.0
SVE-5	5/9/2017	-95.2	25.0	--
SVE-5	5/17/2017	-88.4	25.3	--
SVE-5	5/22/2017	-95.2	25.0	--
SVE-5	6/2/2017	-88.4	25.3	--
SVE-5	6/7/2017	-81.6	27.6	0.2
SVE-5	6/14/2017	-74.8	27.9	--
SVE-5	6/21/2017	-88.4	27.3	--
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-5	1/4/2018	-34.0	34.2	--
SVE-5	1/8/2018	-64.6	26.2	0.0
SVE-5	1/11/2018	-34.0	24.9	--
SVE-5	1/17/2018	-74.8	23.5	--
SVE-5	1/24/2018	-68.0	23.8	--
SVE-5	2/6/2018	-68.0	26.1	0.3
SVE-5	2/7/2018	-68.0	23.8	--

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-5	2/13/2018	-68.0	23.8	--
SVE-5	2/21/2018	-68.0	23.8	--
SVE-5	2/28/2018	-74.8	23.5	--
SVE-5	3/6/2018	-74.8	23.5	--
SVE-5	3/8/2018	-81.6	27.6	0.3
SVE-5	3/13/2018	-68.0	23.8	--
SVE-5	3/19/2018	-68.0	23.8	--
SVE-5	3/26/2018	-68.0	23.8	--
SVE-5	4/3/2018	-81.6	23.3	0.6
SVE-5	4/4/2018	-68.0	23.8	--
SVE-5	4/10/2018	-74.8	23.5	--
SVE-5	4/17/2018	-74.8	23.5	--
SVE-5	4/27/2018	-95.2	25.0	--
SVE-5	5/8/2018	-95.2	22.8	0.5
SVE-5	5/9/2018	-74.8	23.5	--
SVE-5	5/17/2018	-54.4	24.3	--
SVE-5	5/25/2018	-61.2	24.0	--
SVE-5	5/31/2018	-61.2	24.0	--
SVE-5	6/6/2018	-95.2	25.0	0.5
SVE-5	6/12/2018	-61.2	24.0	--
SVE-5	6/19/2018	-61.2	24.0	--
SVE-5	6/27/2018	-61.2	25.0	--
SVE-6	1/18/2016	-68.0	31.9	0.0
SVE-6	1/27/2016	-68.0	31.9	--
SVE-6	2/1/2016	-68.0	31.9	--
SVE-6	2/8/2016	-74.8	34.9	0.3
SVE-6	2/15/2016	-68.0	31.9	--
SVE-6	2/23/2016	-68.0	33.6	--
SVE-6	3/3/2016	-68.0	31.9	--
SVE-6	3/7/2016	-68.0	23.8	0.1
SVE-6	3/14/2016	-68.0	23.8	--
SVE-6	3/21/2016	-74.8	25.8	--
SVE-6	3/28/2016	-74.8	23.5	--
SVE-6	4/6/2016 - 4/7/2016	-68.0	23.8	5.7
SVE-6	4/11/2016	-68.0	26.1	--
SVE-6	4/18/2016	-61.2	24.0	--
SVE-6	4/26/2016	-68.0	23.8	--
SVE-6	5/4/2016	-74.8	23.5	0.2
SVE-6	5/11/2016	-74.8	23.5	--
SVE-6	5/20/2016	-68.0	23.8	--
SVE-6	5/24/2016	-68.0	23.8	--
SVE-6	6/1/2016	-81.6	25.5	--
SVE-6	6/7/2016	-74.8	23.5	0.3
SVE-6	6/14/2016	-68.0	23.8	--
SVE-6	6/21/2016	-68.0	23.8	--
SVE-6	6/27/2016	-74.8	25.8	--
SVE-6	7/6/2016	-74.8	24.9	--
SVE-6	7/15/2016	-68.0	23.8	--
SVE-6	7/20/2016	-68.0	23.8	0.0
SVE-6	7/27/2016	-74.8	23.5	--
SVE-6	8/1/2016	-68.0	23.8	--
SVE-6	8/8/2016	-68.0	23.8	0.3
SVE-6	8/15/2016	-74.8	23.5	--
SVE-6	8/26/2016	-81.6	25.5	--
SVE-6	8/30/2016	-74.8	25.8	--
SVE-6	9/9/2016	-74.8	23.5	0.0
SVE-6	9/12/2016	-74.8	23.5	--

Table 2
Summary of SVE Operations - January 1, 2016 - June 30, 2018
Madison Kipp Corporation
201 Waubesa Street
Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-6	9/20/2016	-74.8	25.8	--
SVE-6	9/27/2016	-81.6	25.5	--
SVE-6	10/6/2016	-74.8	25.8	--
SVE-6	10/10/2016	-74.8	25.8	19.4
SVE-6	10/21/2016	-74.8	25.8	--
SVE-6	10/25/2016	-74.8	25.8	--
SVE-6	11/1/2016	-81.6	25.5	--
SVE-6	11/7/2016	-74.8	25.8	3.7
SVE-6	11/18/2016	-68.0	26.1	--
SVE-6	11/21/2016	-68.0	26.1	--
SVE-6	11/28/2016	-	-	-
SVE-6	12/7/2016	-88.4	29.2	0.1
SVE-6	12/16/2016	-68.0	30.1	--
SVE-6	12/21/2016	-68.0	31.9	--
SVE-6	1/4/2017	-68.0	26.1	--
SVE-6	1/13/2017	-68.0	33.6	--
SVE-6	1/18/2017	-74.8	36.5	0.0
SVE-6	1/23/2017	-69.3	28.1	--
SVE-6	2/8/2017	-81.6	39.0	0.0
SVE-6	2/13/2017	-68.0	41.2	--
SVE-6	2/20/2017	-68.0	26.1	--
SVE-6	2/27/2017	-72.1	23.6	--
SVE-6	3/6/2017	-74.8	25.8	--
SVE-6	3/7/2017	-95.2	28.9	0.9
SVE-6	3/14/2017	-70.7	25.9	--
SVE-6	3/20/2017	-70.7	33.5	--
SVE-6	3/27/2017	-76.1	25.7	--
SVE-6	4/4/2017	-73.4	23.6	--
SVE-6	4/6/2017	-95.2	25.0	0.0
SVE-6	4/12/2017	-88.4	29.2	--
SVE-6	4/20/2017	-88.4	25.3	--
SVE-6	4/25/2017	-88.4	29.2	--
SVE-6	5/5/2017	-88.4	30.9	0.0
SVE-6	5/9/2017	-88.4	29.2	--
SVE-6	5/17/2017	-81.6	27.6	--
SVE-6	5/22/2017	-81.6	27.6	--
SVE-6	6/2/2017	-81.6	29.5	--
SVE-6	6/7/2017	-68.0	31.9	0.2
SVE-6	6/14/2017	-68.0	28.1	--
SVE-6	6/21/2017	-81.6	29.5	--
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	--

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
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	--
SVE-6	1/4/2018	-34.0	18.7	--
SVE-6	1/8/2018	-54.4	24.3	0.0
SVE-6	1/11/2018	-54.4	18.8	--
SVE-6	1/17/2018	-68.0	18.4	--
SVE-6	1/24/2018	-68.0	18.4	--
SVE-6	2/6/2018	-68.0	33.6	0.1
SVE-6	2/7/2018	-68.0	18.4	--
SVE-6	2/13/2018	-68.0	18.4	--
SVE-6	2/21/2018	-68.0	18.4	--
SVE-6	2/28/2018	-68.0	18.4	--
SVE-6	3/6/2018	-68.0	18.4	--
SVE-6	3/8/2018	-68.0	26.1	0.4
SVE-6	3/13/2018	-68.0	18.4	--
SVE-6	3/19/2018	-68.0	18.4	--
SVE-6	3/26/2018	-68.0	18.4	--
SVE-6	4/3/2018	-74.8	27.9	0.5
SVE-6	4/4/2018	-68.0	18.4	--
SVE-6	4/10/2018	-68.0	18.4	--
SVE-6	4/17/2018	-68.0	18.4	--
SVE-6	4/27/2018	-88.4	32.6	--
SVE-6	5/8/2018	-88.4	27.3	0.4
SVE-6	5/9/2018	-74.8	23.5	--
SVE-6	5/17/2018	-54.4	30.7	--
SVE-6	5/25/2018	-54.4	18.8	--
SVE-6	5/31/2018	-61.2	18.6	--
SVE-6	6/6/2018	-81.6	27.6	0.2
SVE-6	6/12/2018	-61.2	26.3	--
SVE-6	6/19/2018	-61.2	18.6	--
SVE-6	6/27/2018	-66.6	26.1	--
SVE-7	1/18/2016	-68.0	21.3	0.0
SVE-7	1/27/2016	-68.0	21.3	--
SVE-7	2/1/2016	-68.0	21.3	--
SVE-7	2/8/2016	-81.6	18.1	0.3
SVE-7	2/15/2016	-81.6	18.1	--
SVE-7	2/23/2016	-74.8	21.1	--
SVE-7	3/3/2016	-68.0	21.3	--
SVE-7	3/7/2016	-68.0	21.3	0.0
SVE-7	3/14/2016	-68.0	21.3	--
SVE-7	3/21/2016	-81.6	20.8	--
SVE-7	3/28/2016	-81.6	20.8	--
SVE-7	4/6/2016 - 4/7/2016	-74.8	21.1	3.2
SVE-7	4/11/2016	-68.0	21.3	--
SVE-7	4/18/2016	-68.0	18.4	--
SVE-7	4/26/2016	-68.0	18.4	--
SVE-7	5/4/2016	-81.6	18.1	0.0
SVE-7	5/11/2016	-81.6	18.1	--
SVE-7	5/20/2016	-81.6	18.1	--
SVE-7	5/24/2016	-81.6	18.1	--

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Summary of SVE Operations - January 1, 2016 - June 30, 2018
Madison Kipp Corporation
201 Waubesa Street
Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-7	6/1/2016	-81.6	18.1	--
SVE-7	6/7/2016	-81.6	14.7	0.1
SVE-7	6/14/2016	-74.8	18.2	--
SVE-7	6/21/2016	-74.8	18.2	--
SVE-7	6/27/2016	-81.6	18.1	--
SVE-7	7/6/2016	-81.6	18.1	--
SVE-7	7/15/2016	-74.8	18.2	--
SVE-7	7/20/2016	-74.8	18.2	0.3
SVE-7	7/27/2016	-81.6	20.8	--
SVE-7	8/1/2016	-74.8	21.1	--
SVE-7	8/8/2016	-74.8	21.1	0.3
SVE-7	8/15/2016	-74.8	21.1	--
SVE-7	8/26/2016	-81.6	20.8	--
SVE-7	8/30/2016	-81.6	18.1	--
SVE-7	9/9/2016	-81.6	20.8	0.0
SVE-7	9/12/2016	-81.6	20.8	--
SVE-7	9/20/2016	-81.6	20.8	--
SVE-7	9/27/2016	-81.6	20.8	--
SVE-7	10/6/2016	-74.8	21.1	--
SVE-7	10/10/2016	-81.6	20.8	30.5
SVE-7	10/21/2016	-81.6	20.8	--
SVE-7	10/25/2016	-81.6	20.8	--
SVE-7	11/1/2016	-81.6	20.8	--
SVE-7	11/7/2016	-81.6	20.8	0.0
SVE-7	11/18/2016	-68.0	21.3	--
SVE-7	11/21/2016	-74.8	21.1	--
SVE-7	11/28/2016	-	-	-
SVE-7	12/7/2016	-88.4	20.6	0.0
SVE-7	12/16/2016	-68.0	23.8	--
SVE-7	12/21/2016	-68.0	21.3	--
SVE-7	1/4/2017	-68.0	21.3	--
SVE-7	1/13/2017	-68.0	21.3	--
SVE-7	1/18/2017	-81.6	20.8	0.0
SVE-7	1/23/2017	-69.3	21.2	--
SVE-7	2/8/2017	-88.4	20.6	0.0
SVE-7	2/13/2017	-68.0	23.8	--
SVE-7	2/20/2017	-68.0	23.8	--
SVE-7	2/27/2017	-72.1	23.6	--
SVE-7	3/6/2017	-74.8	21.1	--
SVE-7	3/7/2017	-102.0	20.2	0.2
SVE-7	3/14/2017	-74.8	21.1	--
SVE-7	3/20/2017	-70.7	23.7	--
SVE-7	3/27/2017	-74.8	21.1	--
SVE-7	4/4/2017	-74.8	21.1	--
SVE-7	4/6/2017	-102.0	20.2	0.0
SVE-7	4/12/2017	-95.2	20.4	--
SVE-7	4/20/2017	-95.2	20.4	--
SVE-7	4/25/2017	-88.4	17.9	--
SVE-7	5/5/2017	-95.2	20.4	0.0
SVE-7	5/9/2017	-95.2	20.4	--
SVE-7	5/17/2017	-88.4	17.9	--
SVE-7	5/22/2017	-88.4	17.9	--
SVE-7	6/2/2017	-88.4	17.9	--
SVE-7	6/7/2017	-74.8	18.2	0.2
SVE-7	6/14/2017	-74.8	21.1	--
SVE-7	6/21/2017	-88.4	20.6	--
SVE-7	6/26/2017	-95.2	20.4	--

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Summary of SVE Operations - January 1, 2016 - June 30, 2018
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WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
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-7	1/4/2018	-74.8	18.2	--
SVE-7	1/8/2018	-61.2	18.6	0.0
SVE-7	1/11/2018	-61.2	21.5	--
SVE-7	1/17/2018	-74.8	21.1	--
SVE-7	1/24/2018	-74.8	21.1	--
SVE-7	2/6/2018	-68.0	18.4	0.0
SVE-7	2/7/2018	-68.0	21.3	--
SVE-7	2/13/2018	-68.0	21.3	--
SVE-7	2/21/2018	-68.0	21.3	--
SVE-7	2/28/2018	-74.8	21.1	--
SVE-7	3/6/2018	-74.8	21.1	--
SVE-7	3/8/2018	-68.0	21.3	0.0
SVE-7	3/13/2018	-68.0	18.4	--
SVE-7	3/19/2018	-68.0	18.4	--
SVE-7	3/26/2018	-68.0	18.4	--
SVE-7	4/3/2018	-74.8	18.2	0.2
SVE-7	4/4/2018	-68.0	18.4	--
SVE-7	4/10/2018	-68.0	21.3	--
SVE-7	4/17/2018	-74.8	18.2	--
SVE-7	4/27/2018	-95.2	17.7	--
SVE-7	5/8/2018	-95.2	17.7	0.2
SVE-7	5/9/2018	-74.8	31.6	--
SVE-7	5/17/2018	-61.2	18.6	--
SVE-7	5/25/2018	-61.2	21.5	--
SVE-7	5/31/2018	-61.2	18.6	--
SVE-7	6/6/2018	-81.6	18.1	0.0
SVE-7	6/12/2018	-61.2	18.6	--
SVE-7	6/19/2018	-61.2	18.6	--
SVE-7	6/27/2018	-61.2	20.4	--
SVE-8	1/18/2016	-68.0	26.1	0.0
SVE-8	1/27/2016	-68.0	23.8	--
SVE-8	2/1/2016	-68.0	18.4	--

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WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-8	2/8/2016	-74.8	18.2	0.2
SVE-8	2/15/2016	-68.0	21.3	--
SVE-8	2/23/2016	-68.0	15.0	--
SVE-8	3/3/2016	-68.0	18.4	--
SVE-8	3/7/2016	-68.0	18.4	0.0
SVE-8	3/14/2016	-68.0	21.3	--
SVE-8	3/21/2016	-74.8	21.1	--
SVE-8	3/28/2016	-81.6	23.3	--
SVE-8	4/6/2016 - 4/7/2016	-74.8	23.5	2.4
SVE-8	4/11/2016	-74.8	23.5	--
SVE-8	4/18/2016	-68.0	18.4	--
SVE-8	4/26/2016	-68.0	18.4	--
SVE-8	5/4/2016	-74.8	21.1	0.0
SVE-8	5/11/2016	-81.6	20.8	--
SVE-8	5/20/2016	-74.8	21.1	--
SVE-8	5/24/2016	-68.0	21.3	--
SVE-8	6/1/2016	-81.6	20.8	--
SVE-8	6/7/2016	-74.8	21.1	0.0
SVE-8	6/14/2016	-74.8	21.1	--
SVE-8	6/21/2016	-74.8	21.1	--
SVE-8	6/27/2016	-81.6	23.3	--
SVE-8	7/6/2016	-74.8	23.5	--
SVE-8	7/15/2016	-68.0	23.8	--
SVE-8	7/20/2016	-68.0	23.8	0.0
SVE-8	7/27/2016	-74.8	23.5	--
SVE-8	8/1/2016	-68.0	23.8	--
SVE-8	8/8/2016	-68.0	23.8	0.2
SVE-8	8/15/2016	-74.8	25.8	--
SVE-8	8/26/2016	-81.6	27.6	--
SVE-8	8/30/2016	-81.6	27.6	--
SVE-8	9/9/2016	-81.6	27.6	0.0
SVE-8	9/12/2016	-81.6	27.6	--
SVE-8	9/20/2016	-81.6	27.6	--
SVE-8	9/27/2016	-88.4	27.3	--
SVE-8	10/6/2016	-74.8	27.9	--
SVE-8	10/10/2016	-81.6	27.6	33.9
SVE-8	10/21/2016	-81.6	27.6	--
SVE-8	10/25/2016	-74.8	29.8	--
SVE-8	11/1/2016	-81.6	27.6	--
SVE-8	11/7/2016	-81.6	29.5	0.0
SVE-8	11/18/2016	-68.0	30.1	--
SVE-8	11/21/2016	-74.8	29.8	--
SVE-8	11/28/2016	-	-	-
SVE-8	12/7/2016	-88.4	30.9	0.1
SVE-8	12/16/2016	-68.0	30.1	--
SVE-8	12/21/2016	-68.0	30.1	--
SVE-8	1/4/2017	-68.0	21.3	--
SVE-8	1/13/2017	-68.0	30.1	--
SVE-8	1/18/2017	-81.6	23.3	0.0
SVE-8	1/23/2017	-69.3	30.0	--
SVE-8	2/8/2017	-88.4	20.6	0.0
SVE-8	2/13/2017	-68.0	30.1	--
SVE-8	2/20/2017	-68.0	23.8	--
SVE-8	2/27/2017	-74.8	25.8	--
SVE-8	3/6/2017	-74.8	29.8	--
SVE-8	3/7/2017	-95.2	27.0	0.1
SVE-8	3/14/2017	-74.8	29.8	--

Table 2
Summary of SVE Operations - January 1, 2016 - June 30, 2018
Madison Kipp Corporation
201 Waubesa Street
Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-8	3/20/2017	-72.1	29.9	--
SVE-8	3/27/2017	-74.8	29.8	--
SVE-8	4/4/2017	-74.8	29.8	--
SVE-8	4/6/2017	-95.2	28.9	0.0
SVE-8	4/12/2017	-95.2	27.0	--
SVE-8	4/20/2017	-95.2	27.0	--
SVE-8	4/25/2017	-95.2	27.0	--
SVE-8	5/5/2017	-95.2	28.9	0.0
SVE-8	5/9/2017	-95.2	28.9	--
SVE-8	5/17/2017	-81.6	25.5	--
SVE-8	5/22/2017	-88.4	27.3	--
SVE-8	6/2/2017	-81.6	25.5	--
SVE-8	6/7/2017	-74.8	25.8	0.2
SVE-8	6/14/2017	-74.8	25.8	--
SVE-8	6/21/2017	-88.4	25.3	--
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	--
SVE-8	1/4/2018	-36.7	31.4	--
SVE-8	1/8/2018	-61.2	30.4	0.0
SVE-8	1/11/2018	-68.0	26.1	--
SVE-8	1/17/2018	-68.0	26.1	--
SVE-8	1/24/2018	-68.0	26.1	--
SVE-8	2/6/2018	-68.0	26.1	0.0
SVE-8	2/7/2018	-68.0	26.1	--
SVE-8	2/13/2018	-68.0	26.1	--
SVE-8	2/21/2018	-68.0	26.1	--
SVE-8	2/28/2018	-74.8	27.9	--
SVE-8	3/6/2018	-68.0	26.1	--
SVE-8	3/8/2018	-74.8	23.5	0.1
SVE-8	3/13/2018	-68.0	28.1	--
SVE-8	3/19/2018	-68.0	28.1	--
SVE-8	3/26/2018	-61.2	28.4	--
SVE-8	4/3/2018	-74.8	27.9	0.2

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-8	4/4/2018	-68.0	28.1	--
SVE-8	4/10/2018	-68.0	26.1	--
SVE-8	4/17/2018	-68.0	28.1	--
SVE-8	4/27/2018	-95.2	30.6	--
SVE-8	5/8/2018	-95.2	28.9	0.2
SVE-8	5/9/2018	-74.8	27.9	--
SVE-8	5/17/2018	-61.2	28.4	--
SVE-8	5/25/2018	-68.0	26.1	--
SVE-8	5/31/2018	-61.2	28.4	--
SVE-8	6/6/2018	-88.4	27.3	0.0
SVE-8	6/12/2018	-61.2	28.4	--
SVE-8	6/19/2018	-61.2	28.4	--
SVE-8	6/27/2018	-61.2	28.4	--
SVE-9	1/18/2016	NR	20.2	0.1
SVE-9	1/27/2016	NR	23.3	--
SVE-9	2/1/2016	-68.0	23.8	--
SVE-9	2/8/2016	-68.0	18.4	0.4
SVE-9	2/15/2016	-61.2	24.0	--
SVE-9	2/23/2016	-74.8	18.2	--
SVE-9	3/3/2016	-54.4	18.8	--
SVE-9	3/7/2016	-81.6	14.7	0.2
SVE-9	3/14/2016	-68.0	18.4	--
SVE-9	3/21/2016	-68.0	18.4	--
SVE-9	3/28/2016	-68.0	18.4	--
SVE-9	4/6/2016 - 4/7/2016	-68.0	18.4	2.4
SVE-9	4/11/2016	-74.8	18.2	--
SVE-9	4/18/2016	-54.4	18.8	--
SVE-9	4/26/2016	-54.4	18.8	--
SVE-9	5/4/2016	-68.0	18.4	0.3
SVE-9	5/11/2016	-68.0	18.4	--
SVE-9	5/20/2016	-74.8	18.2	--
SVE-9	5/24/2016	-68.0	18.4	--
SVE-9	6/1/2016	-74.8	18.2	--
SVE-9	6/7/2016	-54.4	15.3	0.2
SVE-9	6/14/2016	-61.2	18.6	--
SVE-9	6/21/2016	-54.4	18.8	--
SVE-9	6/27/2016	-68.0	18.4	--
SVE-9	7/6/2016	-68.0	18.4	--
SVE-9	7/15/2016	-54.4	18.8	--
SVE-9	7/20/2016	-54.4	18.8	0.0
SVE-9	7/27/2016	-81.6	18.1	--
SVE-9	8/1/2016	-68.0	18.4	--
SVE-9	8/8/2016	-54.4	21.7	0.3
SVE-9	8/15/2016	-54.4	18.8	--
SVE-9	8/26/2016	-54.4	18.8	--
SVE-9	8/30/2016	-68.0	18.4	--
SVE-9	9/9/2016	-54.4	18.8	0.0
SVE-9	9/12/2016	-68.0	21.3	--
SVE-9	9/20/2016	-74.8	18.2	--
SVE-9	9/27/2016	-74.8	18.2	--
SVE-9	10/6/2016	-54.4	18.8	--
SVE-9	10/10/2016	-47.6	21.9	16.2
SVE-9	10/21/2016	-61.2	21.5	--
SVE-9	10/25/2016	-54.4	18.8	--
SVE-9	11/1/2016	-74.8	21.1	--
SVE-9	11/7/2016	-74.8	18.2	--
SVE-9	11/18/2016	-81.6	18.1	--

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H2O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-9	11/21/2016	-54.4	21.7	--
SVE-9	11/28/2016	-	-	-
SVE-9	12/7/2016	-54.4	15.3	0.1
SVE-9	12/16/2016	-54.4	21.7	--
SVE-9	12/21/2016	-61.2	21.5	--
SVE-9	1/4/2017	-81.6	18.1	--
SVE-9	1/13/2017	-81.6	23.3	--
SVE-9	1/18/2017	-68.0	26.1	0.5
SVE-9	1/23/2017	-69.3	18.4	--
SVE-9	2/8/2017	-54.4	21.7	0.0
SVE-9	2/13/2017	-68.0	23.8	--
SVE-9	2/20/2017	-81.6	23.3	--
SVE-9	2/27/2017	-81.6	18.1	--
SVE-9	3/6/2017	-81.6	18.1	--
SVE-9	3/7/2017	-88.4	20.6	0.8
SVE-9	3/14/2017	-54.4	18.8	--
SVE-9	3/20/2017	-108.8	17.3	--
SVE-9	3/27/2017	-81.6	18.1	--
SVE-9	4/4/2017	-108.8	18.9	--
SVE-9	4/6/2017	-81.6	18.1	0.2
SVE-9	4/12/2017	-68.0	21.3	--
SVE-9	4/20/2017	-95.2	20.4	--
SVE-9	4/25/2017	-108.8	20.0	--
SVE-9	5/5/2017	-88.4	23.1	0.0
SVE-9	5/9/2017	-68.0	23.8	--
SVE-9	5/17/2017	-81.6	20.8	--
SVE-9	5/22/2017	-74.8	23.5	--
SVE-9	6/2/2017	-95.2	22.8	--
SVE-9	6/7/2017	-81.6	23.3	0.2
SVE-9	6/14/2017	-54.4	24.3	--
SVE-9	6/21/2017	-68.0	23.8	--
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	_(2)	--
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	--

Table 2
 Summary of SVE Operations - January 1, 2016 - June 30, 2018
 Madison Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

WELL ID	DATE	VACUUM (in H ₂ O)	FLOW RATE (cfm)	VOCs (ppm)
SVE-9	1/4/2018	-38.1	0.0	--
SVE-9	1/8/2018	-54.4	23.3	0.0
SVE-9	1/11/2018	-54.4	18.8	--
SVE-9	1/17/2018	-54.4	18.8	--
SVE-9	1/24/2018	-54.4	18.8	--
SVE-9	2/6/2018	-47.6	24.5	0.4
SVE-9	2/7/2018	-54.4	18.8	--
SVE-9	2/13/2018	-54.4	18.8	--
SVE-9	2/21/2018	-54.4	18.8	--
SVE-9	2/28/2018	-68.0	18.4	--
SVE-9	3/6/2018	-54.4	18.8	--
SVE-9	3/8/2018	-54.4	18.8	1.5
SVE-9	3/13/2018	-68.0	18.4	--
SVE-9	3/19/2018	-54.4	18.8	--
SVE-9	3/26/2018	-54.4	18.8	--
SVE-9	4/3/2018	-61.2	18.6	1.3
SVE-9	4/4/2018	-54.4	18.8	--
SVE-9	4/10/2018	-54.4	18.8	--
SVE-9	4/17/2018	-54.4	18.8	--
SVE-9	4/27/2018	-68.0	15.0	--
SVE-9	5/8/2018	-95.2	17.7	0.7
SVE-9	5/9/2018	-68.0	18.4	--
SVE-9	5/17/2018	-54.4	18.8	--
SVE-9	5/25/2018	-54.4	18.8	--
SVE-9	5/31/2018	-68.0	18.4	--
SVE-9	6/6/2018	-68.0	18.4	0.8
SVE-9	6/12/2018	-54.4	18.8	--
SVE-9	6/19/2018	-61.2	18.6	--
SVE-9	6/27/2018	-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 H₂O = Inches of water column

ppm = parts per million

SVE = Soil Vapor Extraction

VOCs = Volatile Organic Compounds

Footnotes:

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

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

Table 3
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	Lower 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	Upper 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	Upper 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
MP-14 Port 1	Lower Wonewoc	170-178	x		x		Westbay
MP-14 Port 2	Upper 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

Table 3
 Groundwater Monitoring Plan - 2018
 Madison-Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

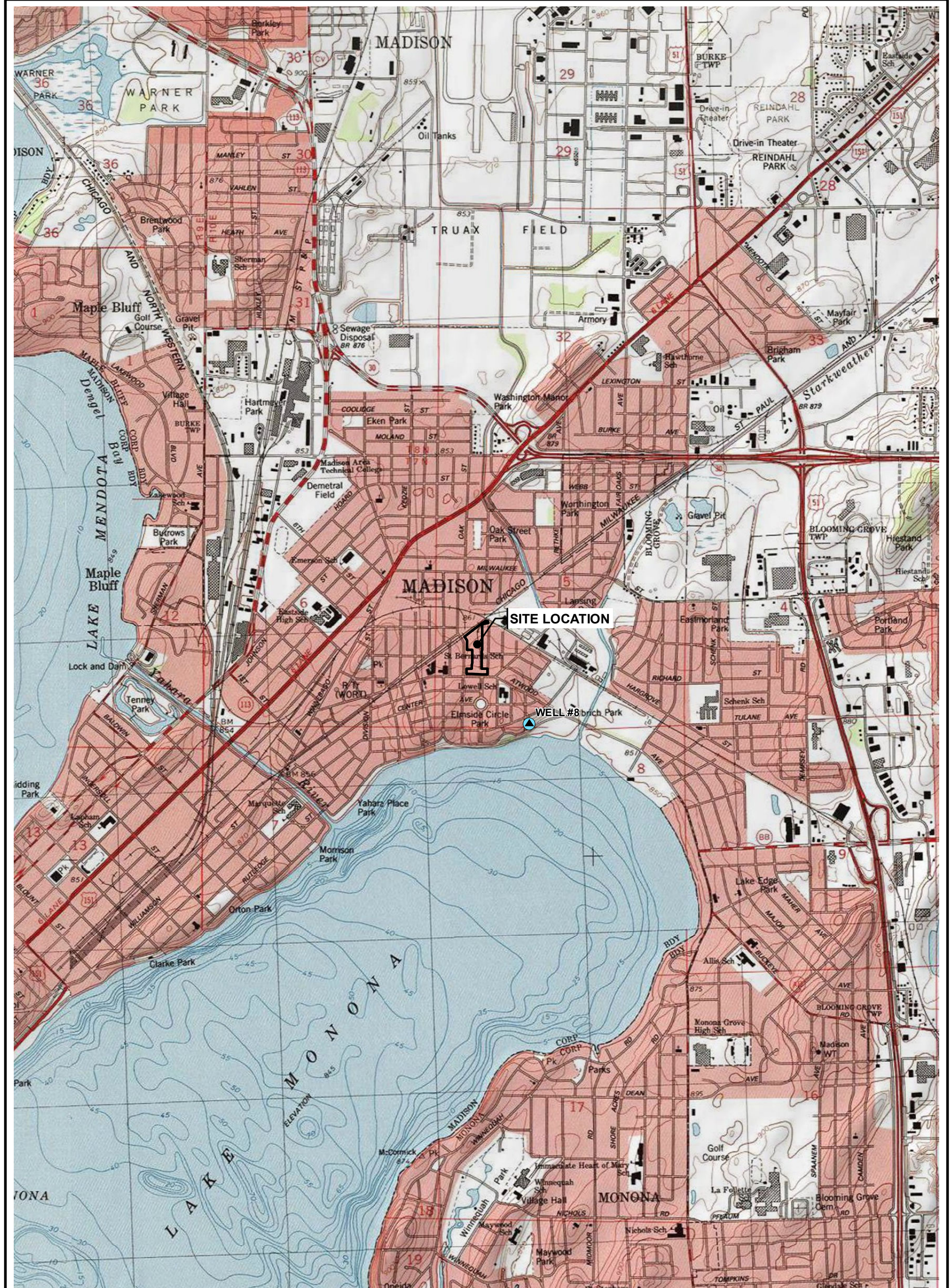
WELL/ POINT ID	BEDROCK UNIT	SCREENED INTERVAL (ft bgs)	APRIL & OCTOBER GAUGING	APRIL VOC SAMPLING	OCTOBER VOC SAMPLING	APRIL/ OCTOBER PCB SAMPLING	PUMP TYPE
MP-15 Port 1	Lower Wonewoc	177-187	x		x		Westbay
MP-15 Port 2	Lower Wonewoc	142-146	x		x		Westbay
MP-15 Port 3	Upper Wonewoc	120-125	x		x		Westbay
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	Upper 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
Total Sample Points:			56	15	40	8	

Notes:



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

Update By A. Stehn 8/10/2018

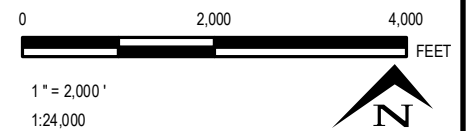
Checked By: S. Sellwood 8/10/218



LEGEND

-  SITE PROPERTY BOUNDARY
-  MUNICIPAL SUPPLY WELL

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



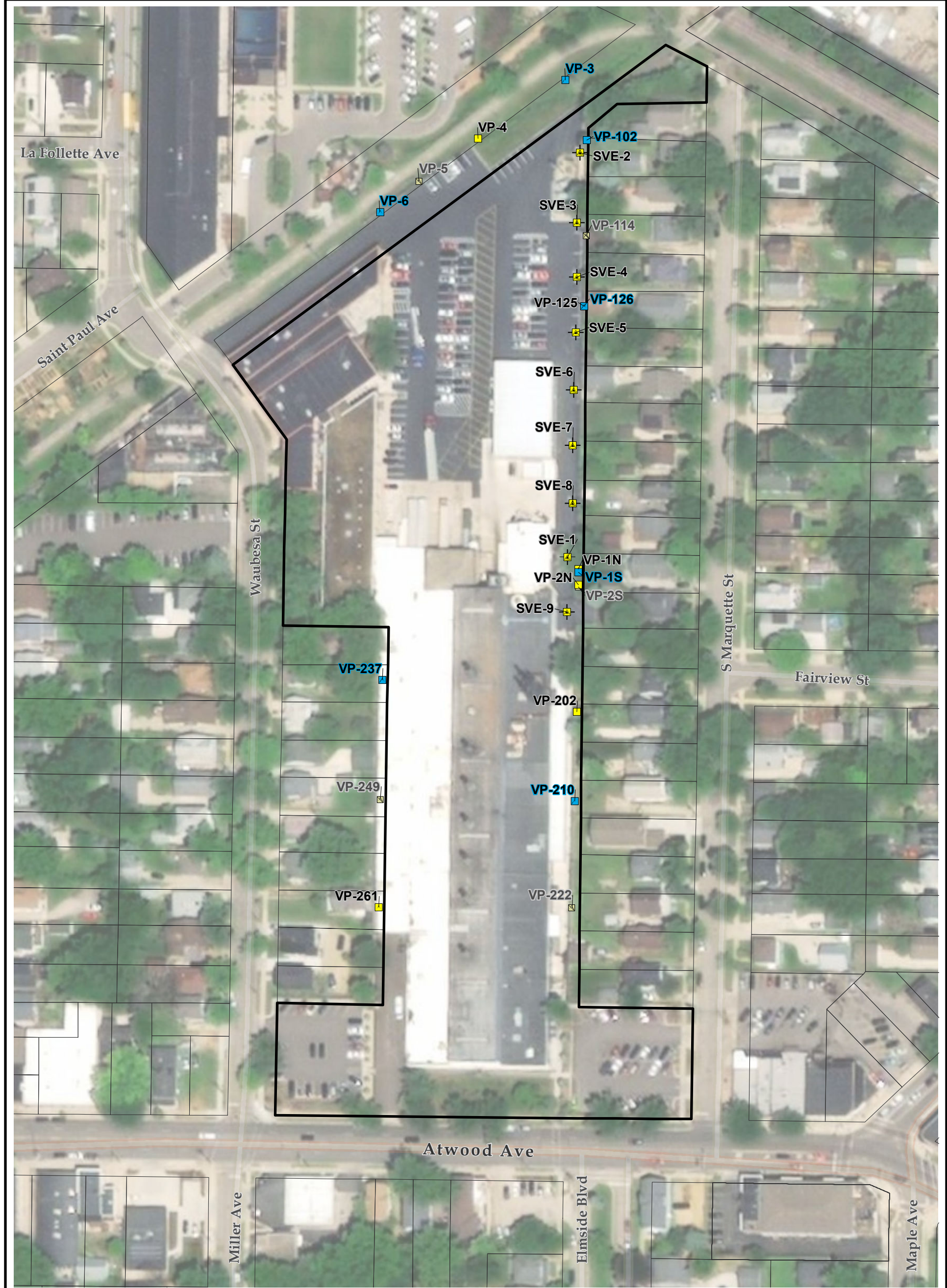

708 Heartland Trail
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 Madison, WI 53717
 Phone: 608.826.3600

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

TITLE: **SITE LOCATION MAP**

DRAWN BY: A. REIS
 CHECKED BY: A. STEHN
 APPROVED BY: K. VATER
 DATE: AUGUST 2018
 PROJ. NO.: 292257.0002
 FILE: 292257-001slm.mxd

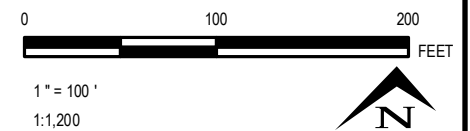
FIGURE 1



BASE MAP FROM ESRI, "WORLD IMAGERY" WEB BASEMAP SERVICE LAYER.
 PARCELS FROM WI SCO.

LEGEND

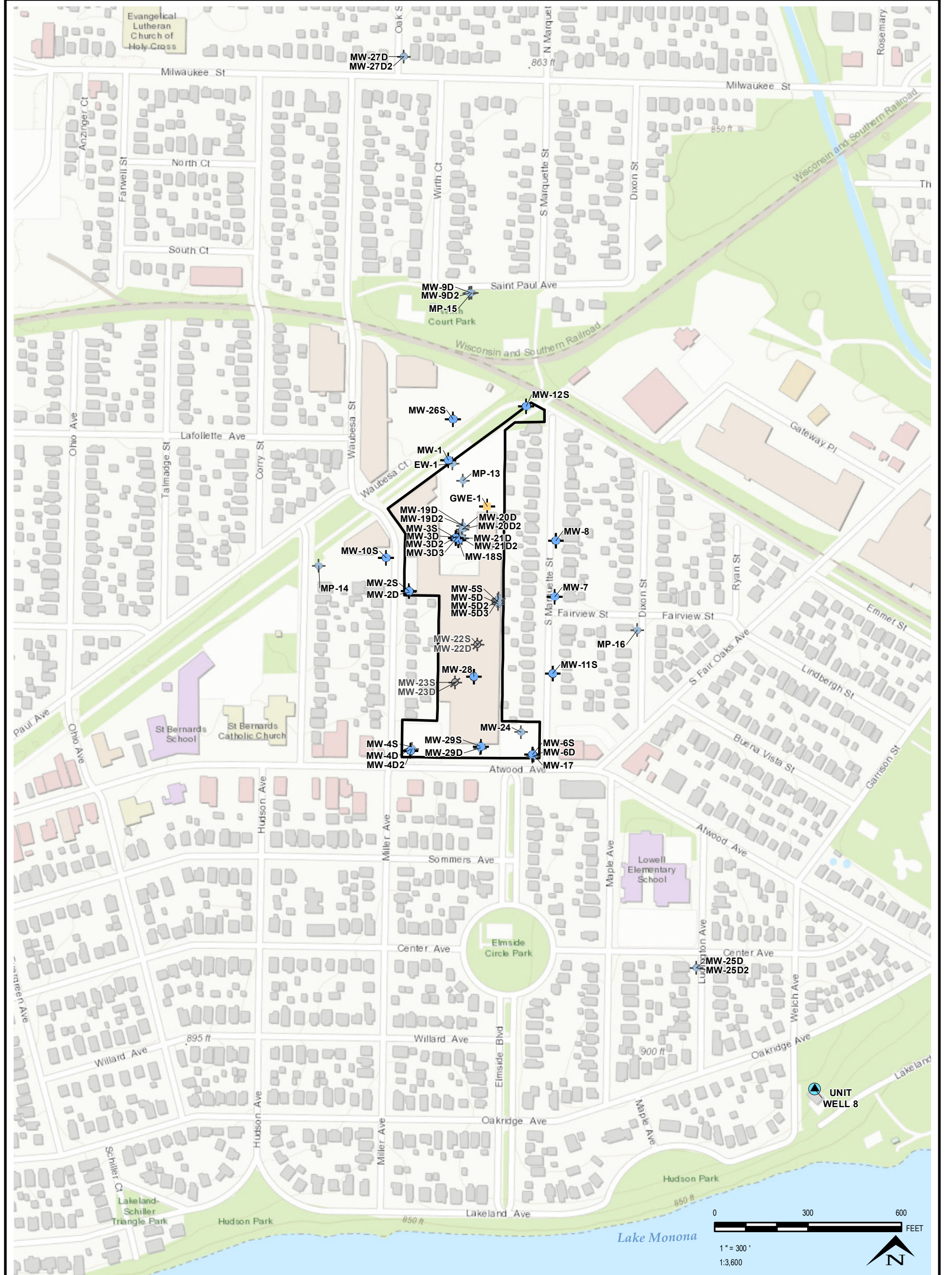
- SITE PROPERTY BOUNDARY
- + SOIL EXTRACTION WELL
- VAPOR MONITORING POINT
- VAPOR MONITORING POINT (PROPOSED SAMPLING)
- VAPOR MONITORING POINT (LOST)




708 Heartland Trail
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PROJECT:	MADISON-KIPP CORPORATION 201 WAUBESA STREET MADISON, WISCONSIN
TITLE:	SOIL VAPOR EXTRACTION WELL AND VAPOR MONITORING POINT LOCATION MAP

DRAWN BY:	AREIS
CHECKED BY:	A. STEHN
APPROVED BY:	K. VATER
DATE:	AUGUST 2018
PROJ. NO.:	292257
FILE:	292257-002.mxd
FIGURE 2	



LEGEND

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

NOTES

1. BASE MAP FROM ESRI, "WORLD TOPOGRAPHIC MAP", WEB BASEMAP SERVICE LAYER.



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

TITLE: **WELL LOCATIONS MAP**

DRAWN BY:	A. REIS
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FIGURE 3

Appendix A

Soil Vapor Extraction Influent Summary Data

Table A-1
 Estimate of SVE System Removal - Total Volatile Organic Compounds
 Madison-Kipp Corporation
 201 Waubesa Street
 Madison, Wisconsin

DATE	TOTAL VOC CONCENTRATION ⁽¹⁾	SYSTEM FLOW RATE	REMOVAL RATE
	µg/m ³	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/m³ = micrograms per cubic meters
 lb/hr = pounds per hour

Updated By: B. Wachholz 1/30/2018
 Checked By: T. Perkins 1/31/2018

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.

Table A-2
Estimate of Extraction Well SVE - 2 Removal Rates
Madison-Kipp Corporation
201 Waubesa Street
Madison, Wisconsin

PARAMETER	DATE	CONCENTRATION (ug/m ³)	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/m³ = 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.

SVE System Influent Total VOC Results

