

Nuisance Minimization Plan for Odors

**1500 North Pitcher Street
Kalamazoo, Michigan**

**Prepared For:
Graphic Packaging International, LLC
Kalamazoo, Michigan**

**July 2022
Project No. 201509**

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List of Abbreviations/Acronyms

AQD	Air Quality Division of EGLE
D/T	Dilutions to Threshold
EBS	Environmental Business Specialists, LLC
EVS	Envirosuite Monitoring System
GPI	Graphic Packaging International, LLC
H2S	Hydrogen Sulfide
H2O2	Hydrogen Peroxide
KWRP	Kalamazoo Water Reclamation Plant
EGLE	Michigan Department of Environment, Great Lakes, and Energy

mV	millivolts
NMP	Nuisance Minimization Plan
OBG	Operated by Guidelines
OMP	Odor Management Plan
ORP	Oxidation Reduction Potential
pH	potential of hydrogen
ppm	parts per million
PTI	Permit to Install
SOP	Standard Operating Procedures
WWTP	Wastewater Treatment Plant

1.0 Introduction

Fishbeck was retained by Graphic Packaging International, LLC (GPI) to prepare a Nuisance Minimization Plan for Odors (NMP) to comply with Special Conditions III.2 and III.3 of FGPROJECT2019 in Permit to Install (PTI) No. 133-19A, which require that the NMP shall include the following:

- A. Identification of the supervisory personnel responsible for overseeing the implementation of the plan.
- B. An identification of the sources of potential nuisance odor issues and how the odors from those sources will be minimized and monitored.
- C. A description of the items or conditions that shall be implemented as part of the plan.
- D. The timeline for making any physical or operational changes and the frequency of any associated inspections or monitoring.
- E. Proposed operation and data collection; such data collection shall include the continued operation of the existing H2S Envirosuite stationary monitoring system for a minimum of twelve months following initial startup of process equipment in FGPROJECT2019, and the data collected by the permittee under this permit condition must be made available to the Department upon request.
- F. A description of the corrective procedures or operational changes that shall be taken in the event of an elevated odor event.

The GPI site is located at 1500 North Pitcher Street, City of Kalamazoo, Kalamazoo County, Michigan. GPI manufactures recycled paperboard. Processes at the site include a mill with associated wastewater treatment processes, as well as a carton printing facility. GPI contracted RK & Associates (RKA) to perform an odor investigation, as agreed on in the Odor Investigation Plan approved by the Michigan Department of Environment, Great Lakes, and Energy (EGLE). The results of the investigation were provided to EGLE on November 3, 2020. As described in the Odor Investigation Report, RKA's conclusion from the study was that GPI's operations do not constitute an odor nuisance situation in the neighboring community based on the data collected.

Following the investigation, GPI commissioned GHD to review past studies, evaluate current odor management practices, and recommend changes to current operations to further reduce odor generation. The Odor Management Engineering Evaluation prepared by GHD was submitted to EGLE on September 23, 2021. The evaluation performed by GHD concluded that concentrations of odor-causing compounds in the process water and wastewater are low, and GPI's current operations are effective in reducing the emission of nuisance odors. GHD recommended that GPI continue to use oxygenation to reduce the potential for H2S generation at the WWTP and complete next-phase engineering for a permanent oxygenation system. GPI has agreed to purchase a permanent oxygenation system. GPI will continue to operate the rental system until installation of the permanent oxygenation system.

In addition to the permanent oxygenation system, GPI has agreed to the installation of emission control equipment for the AES building, drum filter vacuum outlet, and wet well. Once these controls have been implemented, GPI intends to operate and maintain the equipment pursuant to manufacturer recommendations. GPI will update this plan with appropriate operational parameters, if necessary, or GPI will notify EGLE that updates are not necessary when the notification of installation is submitted.

GPI has already begun implementing the recommendations and has seen improvements in lowering hydrogen sulfide concentrations at the site. GPI continues to work with its chemical suppliers to establish the optimal practices and implementation methods. For items not yet fully implemented, the ACO provides anticipated schedules and reporting to EGLE.

The GPI site is situated in a basin along the Kalamazoo River. There is a large increase in elevation directly east of the facility that can limit dispersion of potential odors from the facility and from the adjacent City of Kalamazoo Water Reclamation Plant (KWRP), depending on weather conditions. The GPI Mill and GPI Carton facilities are located west of the GPI WWTP. The Kalamazoo River and wetlands are located south and east of the GPI WWTP and KWRP.

The purpose of this NMP is to outline personnel responsible for implementing this plan; determine the locations around the GPI facility where odors may be originating; provide a description of items GPI proposes to implement as part of this plan; conduct monitoring and data collection; provide contingency planning; and estimate the associated timeline for implementation.

2.0 Identification of the Personnel Responsible for Implementing Plan

The Engineering Manager/Environmental Manager for the GPI Kalamazoo facility is responsible for implementation of this plan. However, the Plant Manager and upper management have reviewed the plan and have agreed to the conditions of the plan and the resources required to insure its implementation.

2.1 Internal Inspection and Reporting Requirements

The Environmental Manager or designated alternate(s) completes three drive arounds per week of the facility. The drive route is on the following four public roadways around the GPI Mill: East Patterson Street, East Mosel Avenue, Riverview Drive, and North Pitcher Street or North Burdick/Edward Streets. The results of the drive arounds are documented on the Kalamazoo Mill Odor Tracking Log ([see Appendix 1](#)). If an unpleasant odor is detected at an intensity of a level 3 or greater on the 0 to 5 scale and the type of odor is related to the Mill operations, the Environmental Manager or designated alternate will investigate to determine probable cause and take appropriate corrective action. The investigation may include the following, as necessary, to determine the source of the odor:

- Examination of the Envirosuite (EVS) data to see if it gives an indication of the odor and source. The data is stored in the system database.
- Use the Jerome Meter at the location where an odor was smelled to determine the Hydrogen sulfide component, and any readings will be documented on the forms in Appendix 2, as appropriate.
- A walk and/or drive around of the internal areas of the Mill to try to pinpoint the source, if possible.

If an odor of 3 or greater is detected, and GPI is determined to be the source of the odors based on the review above, GPI shall notify EGLE and document corrective actions taken on the Kalamazoo Mill Odor Tracking Log.

3.0 Identification of Potential Nuisance Odor Issues and Mitigation

The first step in the process of reducing odors is to determine if odors are present. RKA investigated possible odor sources at GPI and provided the results to EGLE on November 3, 2020. RKA's conclusion was that the odor levels associated with the Mill's operations do not constitute an odor nuisance situation in the surrounding community. However, the data included in that report indicated that, if GPI were to have an odor issue, it would likely be related to wastewater processes at the facility.

3.1 WWTP Process Description

Much of the wastewater from the Mill enters the treatment plant at the Wet Well Building. A general flow diagram of the system is provided on Figure 1. A coarse screen removes large-sized particles from the wastewater as it flows into the wet well. The water is then pumped from the Wet Well Building to the clarifier located north of the Main Treatment Building. The influent pipe along the center bridge transports the wastewater to the center ring of the clarifier, where it is discharged into the clarifier. Polymer, defoamer, Hydrogen Peroxide, and/or approved biocides may be fed to the clarifier influent to aid in the settling of suspended solids, control bacteria growth, and adjust the pH. The settled solids (sludge) are removed from the bottom of the clarifier and pumped to either the main building where the solids are dewatered with the use of a sludge thickener and screw press and/or a vacuum filter, or to the sludge holding tank. Once clarified, the supernatant of the clarifier overflows a weir to the outer ring of the clarifier. From the outer ring, the clarified water can flow to the AES strainers or to a clarifier overflow weir. The clarified water going through the AES strainers is recirculated back to the manufacturing plant for reuse. Should the demand for white water be low and the WWTP Mill reservoir levels

become high, automatic valves on the influent to the AES strainers restrict or shuts off flow. The clarified water is then diverted over the weir to the overflow Parshall flume on the west side of the clarifier and flows to a trunk sewer in the City of Kalamazoo's wastewater collection system. The operation and maintenance of the wastewater treatment processes are described in detail in the Standard Operating Procedures Manual (SOP).

The holding tank has a capacity of approximately 200,000 gallons and is used from time to time primarily as an emergency backup for temporary storage of material. The tank is used when the sludge dewatering capacity is less than the sludge generation rate, during maintenance or mechanical failure of the vacuum filter or screw press, or following process spills in the Mill that limit the effectiveness of the vacuum filter or screw press.

The solids removed from the clarifier are pumped to the rotary drum vacuum filter and/or the screw press for dewatering. The filter drum is divided into three zones, two of which are subject to vacuum pressure. Exhaust from the vacuum system will be vented to an H₂S scrubber.

3.2 Potential Causes of Nuisance Odors

The primary source of potential nuisance odors at the Mill is believed to be caused by microbiological activity when reduced oxygen levels in the WWTP occur, which results in sulfide production in the wastewater and sludge. This phenomenon occurs in an oxygen deficient environment.

GPI has been working with EBS to improve the wastewater treatment operations. The initial review of the system indicated that an increase in oxygen in the WWTP would reduce the likelihood of sulfides being generated in the wastewater, as described in the following sections.

3.3 Odor Minimization Practices

3.3.1 Monitoring to Prevent Odor Potential

EBS recommended monitoring Oxidation Reduction Potential (ORP) as a method to measure the ability or potential of the wastewater to permit specific biological reactions (oxidation or reduction). Oxidation occurs under aerobic conditions, and reduction occurs under anaerobic conditions. ORP is measured in millivolts, with no correction for solution temperature. ORP is not a measurement of concentration directly, but of activity level. There is a correlation between ORP and the rate of inactivation of aerobic bacteria. ORP is measured with a probe which uses millivolts to measure electrical potential.

The more positive an ORP reading is, the more concentrated the oxidizers, such as dissolved oxygen, are and more likely the system is to be aerobic. Conversely, the more negative the ORP reading, the more concentrated reducing agents like hydrogen sulfide are present, making the system more anaerobic. Dissolved oxygen present in the water, is ideal in aeration basins. ORP can provide an indicator of the presence of hydrogen sulfide and other odor causing compounds in the wastewater at the Mill.

GPI currently manually measures the ORP value at the center well of the clarifier and at the overflow weir of the clarifier. GPI will install continuous monitors for ORP at the clarifier outer ring and the mill reservoir. There is not a specific value of ORP that requires a response, but rather the trending of the ORP values are reviewed by WWTP operators.

GPI measures dissolved oxygen (DO) content in the center ring of the clarifier and uses this as the primary indicator of a response being required. Currently, the DO is measured manually. Both ORP and DO readings are taken on a regular basis and logged accordingly (log provided in Appendix 3). Individual readings documented on the form, which may be out of the suggested ranges, do not necessarily indicate an upset. WWTP operators review the readings holistically to determine if further investigation is required. Operators will indicate on the notes area of the form why readings at specified times were not taken.

Because increasing the oxygen in the system too much can cause upsets to the actual operation of the clarifier, GPI must be careful not to react too quickly or overreact to instantaneous measurements. GPI will install continuous monitors for DO in the center well and outer ring of the clarifier. A DO concentration below 1.0 mg/l in the center ring of the clarifier for two readings within a two-hour period requires that GPI review chemical additions and inlet loadings to determine if changes are required. Corrective actions will be documented on the Wastewater Treatment Plant ORP Log.

3.3.2 Oxygen Addition to the WWTP

GPI has been working with EBS to determine the best method for adding oxygen to the wastewater, while still allowing the clarifier to function properly and remove solids from the wastewater. This is currently a work in progress. The first recommendation from EBS to better stabilize the oxygen content in the wastewater, was to replace the Redox chemical previously used for odor control, with a hydrogen peroxide (H₂O₂) addition instead. GPI made this adjustment to the WWTP on September 21, 2020. The use of the H₂O₂ greatly reduced the H₂S concentrations at the locations surveyed by RK Associates. GPI will continue to utilize a combination of hydrogen peroxide and oxygen injection to maintain oxygen levels in the wastewater. GPI will monitor hydrogen sulfide concentrations in the nine areas recommended by RK Associates on a monthly basis using a Jerome analyzer, and the results will be documented on the monthly Jerome Meter Reading Log provided in Appendix 4. A summary of the results from these measurements will be provided to EGLE on a quarterly basis. GPI will remove the AES Building and the Sludge Drum Filter Outlet from the survey two months after the hydrogen sulfide scrubber is installed.

EBS also recommended that GPI install an oxygen injection system on the WWTP, which would provide a more effective way to stabilize oxygen concentrations long term. Use of the oxygen injection system, however, involves installation of equipment and piping changes that have to be scheduled. GPI has been renting an oxygen injection system and proposes to install a permanent system after receiving a construction permit from the City of Kalamazoo.

GPI proposes to utilize H₂O₂, as needed, to manage the oxygen content of the wastewater at the wet well. The injection rate for H₂O₂ is recorded continuously (every 15 minutes).

4.0 Other Minimization Practices Implemented

GPI reviewed its entire WWTP operation to determine potential odor sources and has documented the following odor minimization practices, in addition to the ORP stabilization practices discussed in Section 3. Actions and reactions discussed in this section are documented on the Wastewater Treatment Plant Log provided in Appendix 5.

4.1 Clarifier

The clarifier receives process water from the papermaking process. The process water contains wet end chemicals, fibers, other solids, and coating materials. The clarifier allows time for solids to settle and for floating solids to be skimmed off the top of the water. GPI reuses the clarified water in the process as much as possible.

Upsets in the paper machine operation could result in the generation of odors. These are handled on a case-by-case basis, as the nature of an upset condition cannot be predicted. Upsets and GPI's response will be documented on the Appendix 5 WWTP daily logs.

The clarifier is operated by guidelines (OBGs) and WWTP Operators record pH, rake torque, and sludge bed depth several times every shift, which are documented on the WWTP Log included as Appendix 5. Any indication of an upset and GPI's response are also documented on the WWTP Log.

In addition to being documented by the WWTP operators, the rake torque in the clarifier is also documented continuously. If the rake torque exceeds 45,000 foot-lbs, the K1, K2, K3, and stock prep management are notified and required to evaluate their areas individually for any upsets that may cause additional solids to be transferred

to the WWTP. When management for each area receives the notification, they review their process to determine if anything in their area could be contributing to the increase in solids loading to the clarifier. Management will address any issues found in their area.

GPI's operation is 24 hours per day, 7 days per week, 365 days per year. There is normally one annual Mill outage per year (approximately 1 week long). Water for cleaning and maintenance purposes is still transferred to the GPI WWTP during this shutdown time. However, flow rates are significantly reduced. If the GPI WWTP will not have water flow for 3 days, GPI will flush the clarifier (reduce the retention time) and/or remove water and solids from the clarifier to prevent it from becoming stagnant.

4.2 Junction Box

The junction box is the property of the KWRP, but it is located on GPI property. The main sanitary sewer line discharging water from GPI to the KWRP is located under GPI's Trailer Parking Lot, directly west of the GPI WWTP. The junction box is where GPI wastewater discharges to the KWRP municipal sanitary sewer line. The KWRP has approved a project to modify this line to reduce the potential for odors from this source. The project is approved, and City personnel are currently working on designs of this system.

4.3 Wet Well

The wet well is an underground pit where wastewater streams combine prior to entering the clarifier. GPI has proposed to exhaust the wet well to the odor control scrubber.

4.4 AES Building

The AES Building houses multiple screens in parallel that filter solids from the clarified water returning to the Mill. Maintaining the DO values from the outer ring of the clarifier greater than 0 will minimize the likelihood of odors originating from this area. In addition to the DO values, GPI has proposed to exhaust emissions from the AES filter area to a packed bed scrubber.

4.5 Solids Dewatering

The filter plant removes water from the sludge that settles to the bottom of the clarifier. The sludge is made up of fibers and other solids. The sludge is dewatered as much as possible using either a vacuum drum filter or a screw press. One dewatering unit is used when the solids content is lower, and both while the solids content is high. Both dewatering units can be operated at the same time. The sludge is conveyed from the dewatering units to the sludge pad. Any odor potential in this area will be minimized by maintaining DO values, as discussed in Section 3.3.1. In addition to the DO values, GPI has proposed to exhaust emissions from the vacuum pump for the vacuum drum filter to a packed bed scrubber.

4.6 Sludge Pad

GPI contracts a company to remove dewatered sludge from the concrete pad and haul it to an offsite landfill. The contracting company has an obligation to haul sludge to the landfill a minimum of twice a week, but typically daily on weekdays. This does not give the sludge time to create unpleasant odors.

4.7 Oxygen Injection System

As discussed in Section 3.3.2, GPI is proposing to install a permanent oxygen injection system. The installation of the system and the associated piping changes will be made after receiving a construction permit from the City of Kalamazoo.

GPI will update the NMP within 90 days of the installation, if they determine that a different monitoring technique would be more appropriate.

5.0 Odor Data Collection

5.1 Envirosuite Monitoring System

GPI has installed the Envirosuite stationary monitoring system to measure hydrogen sulfide concentrations at various locations around the facility. A map of the monitoring locations is provided as Figure 2. This system measures and records the hydrogen sulfide concentrations at each of these points every minute. GPI has an alert set up in the Envirosuite system whereby the Environmental Manager or his/her designee will investigate if a monitor has two consecutive 15-minute averages of H₂S concentration exceeding 50 ppb or if the 15-minute average H₂S concentration in a monitor exceeds 25 ppb for a duration exceeding 2 hours. EVS readings should be checked with the Jerome Meter, when possible, to confirm they are not false positives. The data from this check is to be recorded on the form in Appendix 6.

The Envirosuite monitors are considered a screening tool and not compliance type monitors. They have an accuracy of 10 ppb and tend to overestimate the hydrogen sulfide concentration. The Jerome type hydrogen sulfide analyzer used in the odor study and by EGLE during its inspection is more accurate. GPI has purchased a Jerome analyzer, and GPI personnel may confirm the hydrogen sulfide concentration in the area of the monitor, if a 15-minute average concentration exceeding the levels described, to confirm if an odor event is actually occurring. GPI will utilize the tools available in the Envirosuite software to determine the likely origin of the odor. If the origin is a GPI process, the operators of the process will be notified of potential issues.

5.2 Jerome Analyzer Measurements

RKA measured hydrogen sulfide concentrations using a Jerome analyzer (as described above) at nine locations as part of the odor investigation. Several of these locations were shown to have low detection to threshold values and would not likely cause an odor incident. GPI proposes to measure with a Jerome analyzer the hydrogen sulfide concentrations monthly at the following locations:

- Parking Lot B
- North of Stock Prep Building
- Sludge Pile
- Clarifier
- AES Building (to be discontinued 2 months after the scrubber is installed)
- Stock Prep Building Pulper
- Sludge Drum Filter Outlet (until it is eliminated by hookup to the scrubber)
- K3 Dryer Mezzanine
- K1 Coating Kitchen

GPI will provide the results of these measurements to EGLE upon request.

6.0 Conclusion

GPI will proceed with implementation of this plan immediately upon receipt of approval from EGLE and will update, if necessary, when the equipment upgrades described in the prior sections are implemented. GPI will submit records required to be maintained by the NMPO to EGLE upon request.

Figures

Figure 1
FLOW DIAGRAM

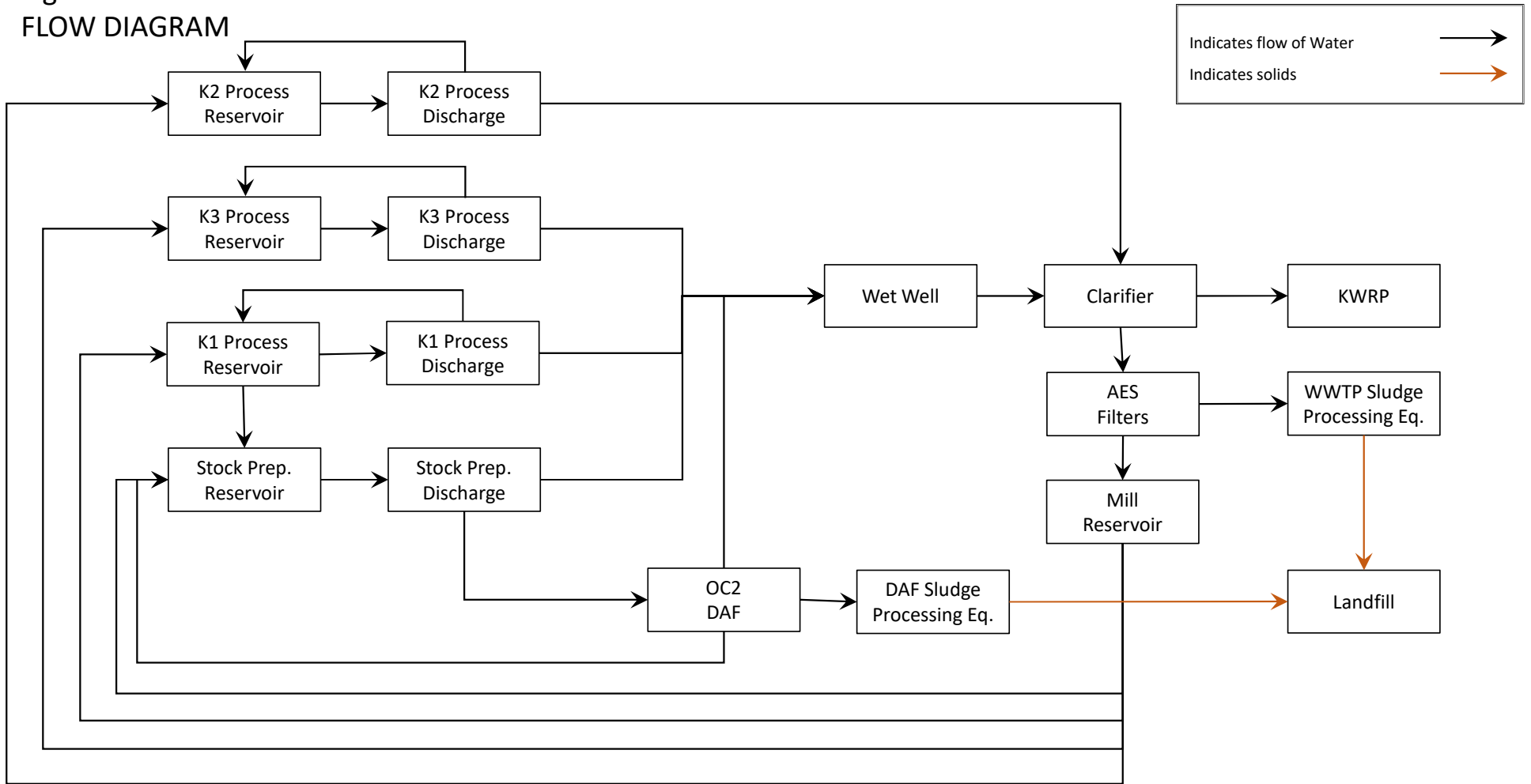




FIGURE NO.	PROJECT NO.
2	201509

Graphic Packaging Inc, LLC
 1500 North Pitcher Street, Kalamazoo, MI

Nuisance Minimization Plan

Hard copy is intended to be 11x17" when plotted. Scale(s) indicated and graphic quality may vary at any other size.

Engineers | Architects | Scientists | Constructors

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Appendix 1

**KALAMAZOO
BOARDMILL**

Wastewater Treatment Plant ORP Log

Shift	Operator Initial's
1st	
2nd	
3rd	

Dissovled Oxygen samples should be tested first
 If Wet Well incoming ORP value starts to decrease, this is an indication more fiber is entering the WWTP process stream. ● When getting reservoir samples make sure flow is established for several minutes before grabbing sample. ● At outer ring grab sample from "V" cut on weir, do not dip the outer ring ● Let ORP samples set until stable indication on meter. Then record value.

Time	Wet Well ORP (200 to 50)	Clarifier Outer Ring ORP (50 to -75)	WWTP Mill Reservoir ORP (-50 to -100)	OR Dissolved Oxygen (.01 to 2mg/L)	Reservoir Dissolved Oxygen (.01 to 2mg/L)	During K1 outages Peroxide will be throttled back to conserve cost.
OBG						Note H2S, Temp of OR and Peroxide Flow
7:00 AM						Note:
9:00 AM						Note:
11:00 AM						Note:
1:00 PM						Note:
3:00 PM						Note:
5:00 PM						Note:
7:00 PM						Note:
9:00 PM						Note:
11:00 PM						Note:
1:00 AM						Note:
3:00 AM						Note:
5:00 AM						Note:

● If busy and unable to complete a sample and test before the next cycle, note reason in note box ● Complete the DO testing prior to the ORP testing, the same sample should be able to be used. ●

Notes: ●Document time of flow change and rate ● Note retests●

1st	
	Sludge:
2nd	
	Sludge:
3rd	
	Sludge:

Appendix 2



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 9/8/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SSE	4	0	0	8:45	None
Paterson St & Porter St	P-2	SE	6	0	0	8:41	None
Graphic Packaging – Gate 2	P-3	SE	6	<2	0	8:37	A - Papermill/Process Water
Graphic Packaging – Gate 5	P-4	SE	5	0	0	8:35	None
Graphic Packaging – Gate 6	P-5	ESE	6	<2	0	8:31	A - Papermill/Process Water
Community Receptors		#					
Paterson St & Harrison St	C-1	E	4	0	0	8:53	None
Harrison St at WWT Plant gate	C-2	ENE	2	<2	0	8:50	A - Papermill/Process Water
Kalamazoo River Watershed Council Parking Lot	C-3	WNW	0.9	0	0.001	9:25	None
Kalamazoo Township Parking Lot	C-4	SW	2	0	0	9:31	None
Riverview Dr & Old Riverview Sav Rd	C-5	WSW	0.8	0	0	9:34	None
East side of Verburg Park Parking Lot	C-6	E	4	0	0	8:56	None
Kalamazoo County Juvenile Home Parking Lot	C-7	WNW	3	0	0	9:09	None
Dunkley St & Edwards St	C-8	NE	3	0	0	9:49	None
Prouty St & Edwards St	C-9	NNE	0.5	<2	0.002	9:45	Combustion
Paterson S & Edwards St	C-10	NNE	0.5	0	0	9:43	None
Parsons St & Porter St	C-11	WSW	0.2	0	0	9:40	None
St. Mary Catholic Church Parking Lot	C-12	WNW	3	0	0	9:06	None
Borgress Medical Center Entrance Parking Lot	C-13	NNW	3	0	0	9:14	None
Neurosurgery of Kalamazoo Parking Lot	C-14	NNW	3	0	0	9:20	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	NNW	3	0	0	9:15	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	ESE	2	0	0.002	9:00	None
Front Entrance of Mt. Olivet Cemetery	C-17	SW	2	0	0	9:28	None
1248 Blakeslee Street	C-18	SE	4	0	0	9:59	None
Union St & E. Hopkins St.	C-19	E	4	0	0	9:52	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 9/9/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	ENE	5	<2	0.001	11:13	A - Papermill/Process Water
Paterson St & Porter St	P-2	ENE	5	<2	0.002	11:09	A - Papermill/Process Water
Graphic Packaging – Gate 2	P-3	ENE	6	<2	0	11:04	A - Papermill/Process Water
Graphic Packaging – Gate 5	P-4	NE	4	<4	0	11:00	A - Papermill/Process Water
Graphic Packaging – Gate 6	P-5	NE	4	0	0	10:58	None
Community Receptors		#					
Paterson St & Harrison St	C-1	NE	6	<2	0.001	11:21	A - Papermill/Process Water
Harrison St at WWT Plant gate	C-2	NE	6	0	0	11:18	None
Kalamazoo River Watershed Council Parking Lot	C-3	NE	7	0	0	11:49	None
Kalamazoo Township Parking Lot	C-4	NE	7	0	0	11:54	None
Riverview Dr & Old Riverview Sav Rd	C-5	NNE	6	0	0	11:58	None
East side of Verburg Park Parking Lot	C-6	NE	6	0	0	11:25	None
Kalamazoo County Juvenile Home Parking Lot	C-7	ENE	7	0	0	11:35	None
Dunkley St & Edwards St	C-8	NE	5	0	0	12:11	None
Prouty St & Edwards St	C-9	NE	5	0	0	12:08	None
Paterson S & Edwards St	C-10	NE	7	<2	0	12:05	A - Papermill/Process Water
Parsons St & Porter St	C-11	NE	7	<2	0	12:02	A - Papermill/Process Water
St. Mary Catholic Church Parking Lot	C-12	ENE	7	0	0	11:32	None
Borgress Medical Center Entrance Parking Lot	C-13	NNE	7	0	0	11:38	None
Neurosurgery of Kalamazoo Parking Lot	C-14	ENE	7	0	0	11:44	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	NNE	7	0	0	11:39	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	ENE	6	0	0.001	11:29	None
Front Entrance of Mt. Olivet Cemetery	C-17	ENE	6	<2	0	11:51	C - Other, Planted Flowers
1248 Blakeslee Street	C-18	NNE	5	0	0	12:22	None
Union St & E. Hopkins St.	C-19	NE	6	0	0	12:15	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 9/11/2020

Field Person RGK

Locations	#	Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations							None
Paterson St & Walbridge St	P-1	E	7	0	0	11:19	None
Paterson St & Porter St	P-2	ENE	8	0	0	11:15	None
Graphic Packaging – Gate 2	P-3	ENE	8	0	0	11:12	None
Graphic Packaging – Gate 5	P-4	ENE	9	<2	0.005	11:09	A - Papermill/Process Water
Graphic Packaging – Gate 6	P-5	E	7	<2	0.001	11:05	A - Papermill/Process Water C - Other, Heavy Equipment Exhaust From Construction
Community Receptors							
Paterson St & Harrison St	C-1	ENE	7	0	0	11:25	None
Harrison St at WWT Plant gate	C-2	ENE	7	0	0	11:22	None
Kalamazoo River Watershed Council Parking Lot	C-3	SE	7	0	0	11:53	None
Kalamazoo Township Parking Lot	C-4	SSE	9	0	0	11:59	None
Riverview Dr & Old Riverview Sav Rd	C-5	ESE	6	0	0	12:02	None
East side of Verburg Park Parking Lot	C-6	ENE	6	0	0	11:28	None
Kalamazoo County Juvenile Home Parking Lot	C-7	ESE	6	0	0	11:38	None
Dunkley St & Edwards St	C-8	SE	8	0	0	12:15	None
Prouty St & Edwards St	C-9	SE	8	<4	0	12:12	A - Papermill/Process Water
Paterson S & Edwards St	C-10	E	7	0	0	12:09	None
Parsons St & Porter St	C-11	ESE	6	0	0	12:06	None
St. Mary Catholic Church Parking Lot	C-12	SE	6	0	0	11:35	None
Borgress Medical Center Entrance Parking Lot	C-13	SE	6	0	0	11:41	None
Neurosurgery of Kalamazoo Parking Lot	C-14	ESE	8	0	0	11:48	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	ESE	8	<2	0	11:43	C - Other, Cut Grass
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SE	6	0	0	11:32	None
Front Entrance of Mt. Olivet Cemetery	C-17	SE	7	0	0	11:56	None
1248 Blakeslee Street	C-18	ESE	7	0	0	12:26	None
Union St & E. Hopkins St.	C-19	SE	8	<2	0.001	12:19	A - Papermill/Process Water

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 9/16/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SSW	3	0	0	8:16	None
Paterson St & Porter St	P-2	SSW	3	0	0	8:12	None
Graphic Packaging – Gate 2	P-3	SSW	2	0	0.002	8:08	None
Graphic Packaging – Gate 5	P-4	SSW	2	0	0	8:06	None
Graphic Packaging – Gate 6	P-5	SSW	2	<2	0	8:02	A - Papermill/Process Water
Community Receptors		#					
Paterson St & Harrison St	C-1	S	4	0	0.003	8:24	None
Harrison St at WWT Plant gate	C-2	S	3	<2	0.004	8:20	A - Papermill/Process Water
Kalamazoo River Watershed Council Parking Lot	C-3	S	5	<2	0.003	8:55	C - Other, Fast Food/Vinegar
Kalamazoo Township Parking Lot	C-4	S	4	<2	0.001	9:02	C - Other, Fast Food/Vinegar
Riverview Dr & Old Riverview Sav Rd	C-5	S	5	0	0.001	9:07	None
East side of Verburg Park Parking Lot	C-6	S	4	0	0.003	8:26	None
Kalamazoo County Juvenile Home Parking Lot	C-7	S	4	<2	0.003	8:38	C - Other, Fast Food/Vinegar
Dunkley St & Edwards St	C-8	S	5	0	0.002	9:22	None
Prouty St & Edwards St	C-9	SSE	4	0	0.002	9:19	None
Paterson S & Edwards St	C-10	S	4	0	0.002	9:16	None
Parsons St & Porter St	C-11	S	4	<2	0.001	9:13	C - Other, Fast Food/Vinegar
St. Mary Catholic Church Parking Lot	C-12	S	5	<2	0.003	8:34	C - Other, Fast Food/Vinegar
Borgress Medical Center Entrance Parking Lot	C-13	S	4	0	0.003	8:42	None
Neurosurgery of Kalamazoo Parking Lot	C-14	S	4	<2	0.001	8:50	C - Other, Fast Food/Vinegar
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	S	4	0	0.003	8:44	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	S	5	0	0.003	8:31	None
Front Entrance of Mt. Olivet Cemetery	C-17	S	4	<2	0.002	8:59	C - Other, Fast Food/Vinegar
1248 Blakeslee Street	C-18	SSE	5	0	0.002	9:32	None
Union St & E. Hopkins St.	C-19	S	5	0	0.002	9:25	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 9/17/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	NNE	9	<4	0.001	14:17	A - Papermill/Process Water
Paterson St & Porter St	P-2	NNE	10	0	0.003	14:13	None
Graphic Packaging – Gate 2	P-3	NE	11	<4	0.002	14:09	A - Papermill/Process Water
Graphic Packaging – Gate 5	P-4	NE	9	<2	0.002	14:06	A - Papermill/Process Water B - Municipal Wastewater
Graphic Packaging – Gate 6	P-5	NE	9	0	0	14:03	None
Community Receptors		#					
Paterson St & Harrison St	C-1	NE	7	0	0	14:24	None
Harrison St at WWT Plant gate	C-2	NNE	9	0	0	14:21	None
Kalamazoo River Watershed Council Parking Lot	C-3	NNE	8	0	0	14:53	None
Kalamazoo Township Parking Lot	C-4	NNE	12	0	0	14:58	None
Riverview Dr & Old Riverview Sav Rd	C-5	NNE	12	0	0.001	15:01	None
East side of Verburg Park Parking Lot	C-6	NE	7	<2	0.001	14:26	A - Papermill/Process Water
Kalamazoo County Juvenile Home Parking Lot	C-7	N	12	0	0.001	14:40	None
Dunkley St & Edwards St	C-8	NE	7	0	0.001	15:13	None
Prouty St & Edwards St	C-9	NE	11	<2	0.001	15:11	A - Papermill/Process Water
Paterson S & Edwards St	C-10	NE	11	0	0.001	15:08	None
Parsons St & Porter St	C-11	NNE	12	<2	0.001	15:05	A - Papermill/Process Water
St. Mary Catholic Church Parking Lot	C-12	N	12	0	0	14:37	None
Borgress Medical Center Entrance Parking Lot	C-13	N	14	0	0.001	14:43	None
Neurosurgery of Kalamazoo Parking Lot	C-14	N	8	0	0	14:48	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	N	14	0	0	14:44	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	N	7	<2	0.001	14:34	C - Other, Tar/Asphalt
Front Entrance of Mt. Olivet Cemetery	C-17	NNE	8	0	0	14:55	None
1248 Blakeslee Street	C-18	NNE	10	0	0.001	15:22	None
Union St & E. Hopkins St.	C-19	NE	7	0	0	15:16	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 9/18/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	NNW	7	<2	0	8:21	A - Papermill/Process Water
Paterson St & Porter St	P-2	NNW	7	<2	0	8:16	A - Papermill/Process Water
Graphic Packaging – Gate 2	P-3	NNW	7	0	0	8:12	None
Graphic Packaging – Gate 5	P-4	NNW	8	<2	0.002	8:10	A - Papermill/Process Water
Graphic Packaging – Gate 6	P-5	NNW	7	0	0	8:08	None
Community Receptors		#					
Paterson St & Harrison St	C-1	NNW	8	0	0	8:28	None
Harrison St at WWT Plant gate	C-2	NNW	8	<2	0	8:25	B - Municipal Wastewater
Kalamazoo River Watershed Council Parking Lot	C-3	NNW	5	0	0	8:54	None
Kalamazoo Township Parking Lot	C-4	NNW	7	0	0.001	8:59	None
Riverview Dr & Old Riverview Sav Rd	C-5	NNE	7	0	0.001	9:02	None
East side of Verburg Park Parking Lot	C-6	NNW	8	<2	0.001	8:31	A - Papermill/Process Water
Kalamazoo County Juvenile Home Parking Lot	C-7	NNW	7	0	0	8:40	None
Dunkley St & Edwards St	C-8	N	8	0	0.001	9:14	None
Prouty St & Edwards St	C-9	NNW	8	0	0	9:11	None
Paterson S & Edwards St	C-10	NNW	8	0	0	9:09	None
Parsons St & Porter St	C-11	NNE	7	<4	0.002	9:06	A - Papermill/Process Water
St. Mary Catholic Church Parking Lot	C-12	NNW	7	0	0	8:37	None
Borgress Medical Center Entrance Parking Lot	C-13	NNW	7	0	0	8:43	None
Neurosurgery of Kalamazoo Parking Lot	C-14	NNW	7	0	0	8:49	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	NNW	7	0	0	8:44	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	NNW	8	0	0	8:35	None
Front Entrance of Mt. Olivet Cemetery	C-17	NNW	5	0	0	8:56	None
1248 Blakeslee Street	C-18	N	7	0	0	9:22	None
Union St & E. Hopkins St.	C-19	N	8	0	0	9:16	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 9/21/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SSE	5	0	0.001	14:23	None
Paterson St & Porter St	P-2	S	6	0	0.002	14:19	None
Graphic Packaging – Gate 2	P-3	SSE	9	0	0.002	14:16	None
Graphic Packaging – Gate 5	P-4	SSE	9	0	0.001	14:14	None
Graphic Packaging – Gate 6	P-5	SE	7	<2	0.004	14:11	A - Papermill/Process Water
Community Receptors		#					
Paterson St & Harrison St	C-1	S	8	0	0.002	14:29	None
Harrison St at WWT Plant gate	C-2	SSE	5	0	0.002	14:26	None
Kalamazoo River Watershed Council Parking Lot	C-3	SSE	7	0	0.002	14:54	None
Kalamazoo Township Parking Lot	C-4	SSE	7	0	0.001	14:59	None
Riverview Dr & Old Riverview Sav Rd	C-5	SE	6	0	0.002	15:02	None
East side of Verburg Park Parking Lot	C-6	S	8	0	0.001	14:31	None
Kalamazoo County Juvenile Home Parking Lot	C-7	S	6	0	0	14:41	None
Dunkley St & Edwards St	C-8	S	8	<2	0.002	15:14	C - Other, Bonfire
Prouty St & Edwards St	C-9	SSE	5	0	0.001	15:11	None
Paterson S & Edwards St	C-10	S	8	0	0.001	15:09	None
Parsons St & Porter St	C-11	SE	6	0	0.001	15:06	None
St. Mary Catholic Church Parking Lot	C-12	S	6	0	0.001	14:38	None
Borgress Medical Center Entrance Parking Lot	C-13	SSE	6	0	0.002	14:44	None
Neurosurgery of Kalamazoo Parking Lot	C-14	S	7	0	0.001	14:49	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	SSE	6	0	0.002	14:45	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	S	8	0	0.001	14:35	None
Front Entrance of Mt. Olivet Cemetery	C-17	SSE	7	0	0.001	14:56	None
1248 Blakeslee Street	C-18	S	6	0	0	15:23	None
Union St & E. Hopkins St.	C-19	S	8	0	0	15:17	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 9/22/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	S	3	0	0.001	11:15	None
Paterson St & Porter St	P-2	SSE	4	0	0.002	11:11	None
Graphic Packaging – Gate 2	P-3	SSE	4	0	0.002	11:08	None
Graphic Packaging – Gate 5	P-4	S	3	0	0.001	11:06	None
Graphic Packaging – Gate 6	P-5	S	3	0	0.001	11:04	None
Community Receptors		#					
Paterson St & Harrison St	C-1	S	5	0	0.001	11:20	None
Harrison St at WWT Plant gate	C-2	S	5	0	0.002	11:18	None
Kalamazoo River Watershed Council Parking Lot	C-3	SSW	2	0	0.003	11:46	None
Kalamazoo Township Parking Lot	C-4	SSW	4	0	0.001	11:51	None
Riverview Dr & Old Riverview Sav Rd	C-5	SSW	4	0	0.002	11:54	None
East side of Verburg Park Parking Lot	C-6	SSE	4	0	0.001	11:22	None
Kalamazoo County Juvenile Home Parking Lot	C-7	SSE	5	0	0.002	11:32	None
Dunkley St & Edwards St	C-8	SW	3	0	0	12:05	None
Prouty St & Edwards St	C-9	SW	3	0	0	12:03	None
Paterson S & Edwards St	C-10	SSW	3	0	0	12:00	None
Parsons St & Porter St	C-11	SSW	3	0	0.001	11:58	None
St. Mary Catholic Church Parking Lot	C-12	SSE	4	0	0.002	11:29	None
Borgress Medical Center Entrance Parking Lot	C-13	SSE	5	0	0.002	11:35	None
Neurosurgery of Kalamazoo Parking Lot	C-14	SE	4	0	0.002	11:41	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	SE	4	0	0	11:37	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SSE	4	<2	0.002	11:26	C - Other, Fast Food
Front Entrance of Mt. Olivet Cemetery	C-17	SSW	4	0	0.001	11:48	None
1248 Blakeslee Street	C-18	SSW	3	0	0.001	12:15	None
Union St & E. Hopkins St.	C-19	SSW	3	0	0.001	12:08	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 9/24/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SSW	4	0	0.003	8:17	None
Paterson St & Porter St	P-2	S	5	0	0.003	8:14	None
Graphic Packaging – Gate 2	P-3	S	4	0	0.003	8:10	None
Graphic Packaging – Gate 5	P-4	S	4	0	0.003	8:08	None
Graphic Packaging – Gate 6	P-5	S	1	0	0.003	8:06	None
Community Receptors		#					
Paterson St & Harrison St	C-1	S	3	0	0.003	8:25	None
Harrison St at WWT Plant gate	C-2	S	3	<2	0.005	8:22	A - Papermill/Process Water
Kalamazoo River Watershed Council Parking Lot	C-3	SSW	2	<2	0.002	8:54	C - Other, Fast Food/Vinegar
Kalamazoo Township Parking Lot	C-4	SSW	1	0	0.003	8:59	None
Riverview Dr & Old Riverview Sav Rd	C-5	S	2	0	0.001	9:02	None
East side of Verburg Park Parking Lot	C-6	S	3	0	0.004	8:28	None
Kalamazoo County Juvenile Home Parking Lot	C-7	S	3	0	0.002	8:38	None
Dunkley St & Edwards St	C-8	SSE	4	0	0.002	9:14	None
Prouty St & Edwards St	C-9	SSE	4	0	0.003	9:12	None
Paterson S & Edwards St	C-10	SSE	3	0	0.002	9:09	None
Parsons St & Porter St	C-11	SSE	3	0	0.002	9:07	None
St. Mary Catholic Church Parking Lot	C-12	SSW	2	<2	0.003	8:35	C - Other, Fast Food/Vinegar
Borgress Medical Center Entrance Parking Lot	C-13	S	3	<2	0.003	8:41	C - Other, Fast Food/Vinegar
Neurosurgery of Kalamazoo Parking Lot	C-14	SSW	2	<2	0.003	8:49	C - Other, Fast Food/Vinegar
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	S	3	0	0.003	8:44	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SSW	2	<2	0.003	8:32	C - Other, Fast Food/Vinegar
Front Entrance of Mt. Olivet Cemetery	C-17	SSW	1	0	0.001	8:57	None
1248 Blakeslee Street	C-18	S	4	0	0.002	9:24	None
Union St & E. Hopkins St.	C-19	SSE	4	<2	0.002	9:17	C - Other, Bonfire

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 9/30/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SSW	8	0	0	11:15	None
Paterson St & Porter St	P-2	SSW	8	0	0	11:12	None
Graphic Packaging – Gate 2	P-3	SSW	9	0	0	11:08	None
Graphic Packaging – Gate 5	P-4	SSW	10	0	0	11:06	None
Graphic Packaging – Gate 6	P-5	SSW	10	<2	0	11:04	A - Papermill/Process Water
Community Receptors		#					
Paterson St & Harrison St	C-1	SW	8	0	0	11:22	None
Harrison St at WWT Plant gate	C-2	S	8	0	0.001	11:19	None
Kalamazoo River Watershed Council Parking Lot	C-3	SW	8	<2	0	11:46	A - Papermill/Process Water
Kalamazoo Township Parking Lot	C-4	SW	8	<2	0	11:52	A - Papermill/Process Water
Riverview Dr & Old Riverview Sav Rd	C-5	SW	8	<2	0.001	11:56	A - Papermill/Process Water
East side of Verburg Park Parking Lot	C-6	SW	8	0	0	11:25	None
Kalamazoo County Juvenile Home Parking Lot	C-7	SSW	9	0	0	11:33	None
Dunkley St & Edwards St	C-8	SSW	6	0	0.001	12:08	None
Prouty St & Edwards St	C-9	SW	9	0	0	12:06	None
Paterson S & Edwards St	C-10	SW	9	0	0	12:03	None
Parsons St & Porter St	C-11	SSW	7	0	0	12:01	None
St. Mary Catholic Church Parking Lot	C-12	SSW	9	0	0	11:30	None
Borgress Medical Center Entrance Parking Lot	C-13	SSW	9	0	0	11:36	None
Neurosurgery of Kalamazoo Parking Lot	C-14	SSW	10	0	0	11:41	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	SSW	10	0	0	11:38	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SSW	9	0	0	11:27	None
Front Entrance of Mt. Olivet Cemetery	C-17	SW	9	<2	0	11:49	A - Papermill/Process Water
1248 Blakeslee Street	C-18	SSW	9	0	0	12:17	None
Union St & E. Hopkins St.	C-19	SSW	6	0	0.001	12:11	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/1/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SSW	3	0	0.002	8:33	None
Paterson St & Porter St	P-2	SSW	3	0	0.001	8:29	None
Graphic Packaging – Gate 2	P-3	SSW	2	0	0	8:26	None
Graphic Packaging – Gate 5	P-4	SSW	2	0	0	8:24	None
Graphic Packaging – Gate 6	P-5	S	3	0	0.001	8:21	None
Community Receptors		#					
Paterson St & Harrison St	C-1	S	3	0	0.002	8:40	None
Harrison St at WWT Plant gate	C-2	SSW	3	0	0.003	8:36	None
Kalamazoo River Watershed Council Parking Lot	C-3	S	2	0	0.002	9:05	None
Kalamazoo Township Parking Lot	C-4	SSW	2	<2	0.002	9:10	A - Papermill/Process Water
Riverview Dr & Old Riverview Sav Rd	C-5	SSW	2	0	0.002	9:14	None
East side of Verburg Park Parking Lot	C-6	SSW	3	0	0.002	8:42	None
Kalamazoo County Juvenile Home Parking Lot	C-7	SSW	3	0	0.002	8:51	None
Dunkley St & Edwards St	C-8	SSW	1	0	0.001	9:26	None
Prouty St & Edwards St	C-9	SSW	1	0	0.002	9:23	None
Paterson S & Edwards St	C-10	S	2	0	0.002	9:21	None
Parsons St & Porter St	C-11	S	2	0	0.002	9:18	None
St. Mary Catholic Church Parking Lot	C-12	SSW	3	0	0.002	8:48	None
Borgress Medical Center Entrance Parking Lot	C-13	SSW	2	0	0.002	8:54	None
Neurosurgery of Kalamazoo Parking Lot	C-14	SSW	2	0	0.002	9:00	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	SSW	2	0	0.001	8:56	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SSW	3	0	0.002	8:46	None
Front Entrance of Mt. Olivet Cemetery	C-17	SSW	2	0	0.001	9:08	None
1248 Blakeslee Street	C-18	S	3	0	0.002	9:34	None
Union St & E. Hopkins St.	C-19	SSW	3	0	0.001	9:28	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/2/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	WNW	4	0	0	11:22	None
Paterson St & Porter St	P-2	NNW	4	0	0	11:18	None
Graphic Packaging – Gate 2	P-3	NNW	4	<2	0	11:14	A - Papermill/Process Water
Graphic Packaging – Gate 5	P-4	NNW	4	0	0	11:12	None
Graphic Packaging – Gate 6	P-5	NNW	4	0	0	11:09	None
Community Receptors		#					
Paterson St & Harrison St	C-1	NW	4	<2	0.002	11:30	A - Papermill/Process Water
Harrison St at WWT Plant gate	C-2	WNW	3	<2	0.007	11:26	B - Municipal Wastewater
Kalamazoo River Watershed Council Parking Lot	C-3	NW	3	0	0	11:57	None
Kalamazoo Township Parking Lot	C-4	NW	4	0	0	12:02	None
Riverview Dr & Old Riverview Sav Rd	C-5	NW	4	0	0.001	12:05	None
East side of Verburg Park Parking Lot	C-6	NW	6	0	0	11:32	None
Kalamazoo County Juvenile Home Parking Lot	C-7	NW	3	0	0	11:42	None
Dunkley St & Edwards St	C-8	NNW	2	0	0	12:17	None
Prouty St & Edwards St	C-9	NW	1	0	0.001	12:14	None
Paterson S & Edwards St	C-10	NW	1	0	0	12:12	None
Parsons St & Porter St	C-11	WNW	3	0	0	12:09	None
St. Mary Catholic Church Parking Lot	C-12	NNW	3	0	0	11:40	None
Borgress Medical Center Entrance Parking Lot	C-13	NW	3	0	0	11:46	None
Neurosurgery of Kalamazoo Parking Lot	C-14	NW	3	0	0	11:52	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	NW	2	0	0.001	11:48	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	NNW	3	<2	0.001	11:37	A - Papermill/Process Water
Front Entrance of Mt. Olivet Cemetery	C-17	NW	3	0	0	11:59	None
1248 Blakeslee Street	C-18	NNW	6	0	0	12:27	None
Union St & E. Hopkins St.	C-19	NNW	2	0	0	12:20	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/5/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SW	0.9	<2	0.002	8:30	C - Other, Diesel From Machinery
Paterson St & Porter St	P-2	SW	0.2	0	0.001	8:26	None
Graphic Packaging – Gate 2	P-3	SW	0.2	0	0.001	8:22	None
Graphic Packaging – Gate 5	P-4	NNE	0.4	0	0.002	8:21	None
Graphic Packaging – Gate 6	P-5	NNE	0.4	<2	0.005	8:18	B - Municipal Wastewater
Community Receptors		#					
Paterson St & Harrison St	C-1	SSW	2	0	0.003	8:36	None
Harrison St at WWT Plant gate	C-2	SSW	2	0	0.003	8:33	None
Kalamazoo River Watershed Council Parking Lot	C-3	W	0.3	0	0.002	9:01	None
Kalamazoo Township Parking Lot	C-4	SW	0.7	0	0.002	9:06	None
Riverview Dr & Old Riverview Sav Rd	C-5	SSE	2	0	0.002	9:09	None
East side of Verburg Park Parking Lot	C-6	SW	1	0	0.003	8:39	None
Kalamazoo County Juvenile Home Parking Lot	C-7	E	1	0	0.001	8:48	None
Dunkley St & Edwards St	C-8	S	4	<2	0.002	9:21	A - Papermill/Process Water
Prouty St & Edwards St	C-9	S	4	0	0.002	9:19	None
Paterson S & Edwards St	C-10	S	2	0	0.002	9:16	None
Parsons St & Porter St	C-11	S	2	<2	0.001	9:13	A - Papermill/Process Water
St. Mary Catholic Church Parking Lot	C-12	SW	0.3	0	0.001	8:45	None
Borgress Medical Center Entrance Parking Lot	C-13	E	1	0	0.001	8:51	None
Neurosurgery of Kalamazoo Parking Lot	C-14	S	0.5	0	0.001	8:56	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	S	0.5	0	0.001	8:53	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SW	0.3	0	0.002	8:43	None
Front Entrance of Mt. Olivet Cemetery	C-17	SW	0.7	0	0.001	9:04	None
1248 Blakeslee Street	C-18	S	5	0	0.001	9:30	None
Union St & E. Hopkins St.	C-19	S	5	0	0.002	9:24	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/6/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SW	6	0	0	11:22	None
Paterson St & Porter St	P-2	SW	5	0	0	11:18	None
Graphic Packaging – Gate 2	P-3	WSW	8	0	0	11:15	None
Graphic Packaging – Gate 5	P-4	WSW	8	0	0	11:13	None
Graphic Packaging – Gate 6	P-5	SSW	7	0	0	11:10	None
Community Receptors		#					
Paterson St & Harrison St	C-1	WSW	4	0	0.001	11:29	None
Harrison St at WWT Plant gate	C-2	SW	6	<2	0.003	11:25	A - Papermill/Process Water
Kalamazoo River Watershed Council Parking Lot	C-3	SW	8	<2	0	11:55	A - Papermill/Process Water
Kalamazoo Township Parking Lot	C-4	SW	5	<2	0.002	12:02	A - Papermill/Process Water
Riverview Dr & Old Riverview Sav Rd	C-5	SW	5	0	0.003	12:05	None
East side of Verburg Park Parking Lot	C-6	WSW	4	0	0.001	11:31	None
Kalamazoo County Juvenile Home Parking Lot	C-7	SSW	7	0	0.003	11:41	None
Dunkley St & Edwards St	C-8	SSW	7	0	0	12:18	None
Prouty St & Edwards St	C-9	SW	7	0	0	12:15	None
Paterson S & Edwards St	C-10	SW	7	0	0.001	12:12	None
Parsons St & Porter St	C-11	SW	6	0	0	12:10	None
St. Mary Catholic Church Parking Lot	C-12	SSW	7	0	0	11:38	None
Borgress Medical Center Entrance Parking Lot	C-13	SW	6	0	0	11:45	None
Neurosurgery of Kalamazoo Parking Lot	C-14	SW	6	0	0	11:51	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	SW	6	0	0	11:46	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SSW	8	0	0.001	11:35	None
Front Entrance of Mt. Olivet Cemetery	C-17	SW	6	<2	0.001	11:58	C - Other, Burnt Rubber
1248 Blakeslee Street	C-18	WSW	5	0	0	12:29	None
Union St & E. Hopkins St.	C-19	SSW	7	0	0	12:21	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/8/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	W	7	0	0.001	11:17	None
Paterson St & Porter St	P-2	WNW	5	0	0.002	11:13	None
Graphic Packaging – Gate 2	P-3	W	5	0	0.002	11:09	None
Graphic Packaging – Gate 5	P-4	W	5	0	0.001	11:07	None
Graphic Packaging – Gate 6	P-5	W	5	<2	0	11:04	C - Other, Burner
Community Receptors		#					
Paterson St & Harrison St	C-1	W	5	0	0.002	11:25	None
Harrison St at WWT Plant gate	C-2	W	7	<2	0.002	11:21	A - Papermill/Process Water
Kalamazoo River Watershed Council Parking Lot	C-3	WNW	6	<2	0.002	11:51	A - Papermill/Process Water
Kalamazoo Township Parking Lot	C-4	WSW	7	<2	0.002	11:57	C -Other, Skunk
Riverview Dr & Old Riverview Sav Rd	C-5	WNW	3	0	0.002	12:01	None
East side of Verburg Park Parking Lot	C-6	W	5	0	0.002	11:28	None
Kalamazoo County Juvenile Home Parking Lot	C-7	WNW	6	0	0.002	11:37	None
Dunkley St & Edwards St	C-8	W	7	0	0.002	12:14	None
Prouty St & Edwards St	C-9	W	7	0	0.001	12:12	None
Paterson S & Edwards St	C-10	W	7	0	0.001	12:08	None
Parsons St & Porter St	C-11	W	7	0	0	12:05	None
St. Mary Catholic Church Parking Lot	C-12	W	7	0	0.001	11:34	None
Borgress Medical Center Entrance Parking Lot	C-13	WNW	6	0	0.001	11:40	None
Neurosurgery of Kalamazoo Parking Lot	C-14	W	8	0	0	11:46	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	W	8	0	0	11:42	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	W	5	0	0.002	11:31	None
Front Entrance of Mt. Olivet Cemetery	C-17	WNW	7	0	0.002	11:54	None
1248 Blakeslee Street	C-18	WNW	5	0	0.001	12:23	None
Union St & E. Hopkins St.	C-19	W	7	0	0.001	12:16	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/12/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	S	11	0	0	14:07	None
Paterson St & Porter St	P-2	SSE	9	0	0	14:04	None
Graphic Packaging – Gate 2	P-3	S	10	0	0	14:00	None
Graphic Packaging – Gate 5	P-4	S	10	<2	0	13:58	A - Papermill/Process Water
Graphic Packaging – Gate 6	P-5	SSE	11	0	0	13:55	None
Community Receptors		#					
Paterson St & Harrison St	C-1	S	12	0	0	14:32	None
Harrison St at WWT Plant gate	C-2	S	11	0	0	14:10	None
Kalamazoo River Watershed Council Parking Lot	C-3	S	13	0	0	14:56	None
Kalamazoo Township Parking Lot	C-4	S	9	0	0	15:01	None
Riverview Dr & Old Riverview Sav Rd	C-5	S	11	0	0	15:04	None
East side of Verburg Park Parking Lot	C-6	S	12	0	0	14:34	None
Kalamazoo County Juvenile Home Parking Lot	C-7	S	13	0	0	14:42	None
Dunkley St & Edwards St	C-8	S	12	0	0	15:14	None
Prouty St & Edwards St	C-9	S	12	0	0	15:12	None
Paterson S & Edwards St	C-10	S	10	0	0	15:10	None
Parsons St & Porter St	C-11	S	10	0	0	15:08	None
St. Mary Catholic Church Parking Lot	C-12	S	11	0	0	14:40	None
Borgress Medical Center Entrance Parking Lot	C-13	S	13	0	0	14:46	None
Neurosurgery of Kalamazoo Parking Lot	C-14	S	14	0	0	14:51	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	S	14	0	0	14:48	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	S	11	<2	0	14:37	C - Other, Fast Food
Front Entrance of Mt. Olivet Cemetery	C-17	S	9	0	0	14:59	None
1248 Blakeslee Street	C-18	S	11	0	0	15:23	None
Union St & E. Hopkins St.	C-19	S	12	0	0	15:16	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/15/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	WNW	5	0	0	13:17	None
Paterson St & Porter St	P-2	WNW	8	0	0	13:14	None
Graphic Packaging – Gate 2	P-3	W	7	0	0.005	13:09	None
Graphic Packaging – Gate 5	P-4	W	7	0	0	13:07	None
Graphic Packaging – Gate 6	P-5	W	6	0	0	13:05	None
Community Receptors		#					
Paterson St & Harrison St	C-1	WSW	5	0	0	13:38	None
Harrison St at WWT Plant gate	C-2	W	8	<2	0	13:21	A - Papermill/Process Water
Kalamazoo River Watershed Council Parking Lot	C-3	W	7	<2	0.003	14:04	B - Municipal Wastewater
Kalamazoo Township Parking Lot	C-4	W	5	0	0.001	14:09	None
Riverview Dr & Old Riverview Sav Rd	C-5	WNW	5	0	0	14:13	None
East side of Verburg Park Parking Lot	C-6	WSW	5	<2	0	13:41	A - Papermill/Process Water
Kalamazoo County Juvenile Home Parking Lot	C-7	WSW	8	<2	0.001	13:50	A - Papermill/Process Water
Dunkley St & Edwards St	C-8	NW	3	0	0	14:24	None
Prouty St & Edwards St	C-9	NW	3	0	0	14:22	None
Paterson S & Edwards St	C-10	W	4	0	0	14:19	None
Parsons St & Porter St	C-11	W	4	0	0	14:17	None
St. Mary Catholic Church Parking Lot	C-12	WSW	8	0	0	13:47	None
Borgress Medical Center Entrance Parking Lot	C-13	W	5	0	0	13:54	None
Neurosurgery of Kalamazoo Parking Lot	C-14	WSW	6	0	0	13:59	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	W	5	0	0.001	13:55	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	WSW	7	0	0	13:44	None
Front Entrance of Mt. Olivet Cemetery	C-17	W	5	0	0	14:07	None
1248 Blakeslee Street	C-18	WNW	7	0	0	14:34	None
Union St & E. Hopkins St.	C-19	NW	6	0	0	14:27	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/16/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SSW	2	0	0.003	8:24	None
Paterson St & Porter St	P-2	S	2	0	0.003	8:21	None
Graphic Packaging – Gate 2	P-3	S	2	0	0.002	8:17	None
Graphic Packaging – Gate 5	P-4	SSW	3	0	0.002	8:15	None
Graphic Packaging – Gate 6	P-5	SSW	3	0	0.002	8:13	None
Community Receptors		#					
Paterson St & Harrison St	C-1	S	3	0	0.003	8:53	None
Harrison St at WWT Plant gate	C-2	S	3	0	0.005	8:27	None
Kalamazoo River Watershed Council Parking Lot	C-3	S	3	0	0.003	9:17	None
Kalamazoo Township Parking Lot	C-4	SW	3	0	0.002	9:22	None
Riverview Dr & Old Riverview Sav Rd	C-5	S	3	0	0.002	9:25	None
East side of Verburg Park Parking Lot	C-6	S	3	0	0.003	8:55	None
Kalamazoo County Juvenile Home Parking Lot	C-7	S	4	0	0.002	9:04	None
Dunkley St & Edwards St	C-8	S	3	0	0.002	9:39	None
Prouty St & Edwards St	C-9	S	3	0	0.002	9:38	None
Paterson S & Edwards St	C-10	S	3	0	0.003	9:35	None
Parsons St & Porter St	C-11	S	3	0	0.003	9:31	None
St. Mary Catholic Church Parking Lot	C-12	S	4	0	0.003	9:02	None
Borgress Medical Center Entrance Parking Lot	C-13	S	3	0	0.002	9:08	None
Neurosurgery of Kalamazoo Parking Lot	C-14	S	2	0	0.002	9:13	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	S	3	0	0.002	9:09	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	S	3	0	0.004	8:59	None
Front Entrance of Mt. Olivet Cemetery	C-17	S	3	0	0.002	9:20	None
1248 Blakeslee Street	C-18	SSW	4	0	0.002	9:49	None
Union St & E. Hopkins St.	C-19	SSW	3	0	0.002	9:42	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/19/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations							
	#						
Paterson St & Walbridge St	P-1	ESE	5	0	0	11:30	None
Paterson St & Porter St	P-2	ESE	5	0	0	11:27	None
Graphic Packaging – Gate 2	P-3	SE	6	0	0.002	11:23	None
Graphic Packaging – Gate 5	P-4	SSE	3	0	0.001	11:21	None
Graphic Packaging – Gate 6	P-5	SSE	3	<2	0	11:18	A - Papermill/Process Water
Community Receptors							
	#						
Paterson St & Harrison St	C-1	SE	6	0	0.001	11:36	None
Harrison St at WWT Plant gate	C-2	SE	6	0	0.002	11:33	None
Kalamazoo River Watershed Council Parking Lot	C-3	ENE	5	0	0.001	12:01	None
Kalamazoo Township Parking Lot	C-4	ESE	5	0	0	12:05	None
Riverview Dr & Old Riverview Sav Rd	C-5	E	4	0	0.001	12:08	None
East side of Verburg Park Parking Lot	C-6	ESE	6	0	0.001	11:38	None
Kalamazoo County Juvenile Home Parking Lot	C-7	E	6	0	0.001	11:48	None
Dunkley St & Edwards St	C-8	ESE	5	<2	0.001	12:36	C - Other, Plant Decay
Prouty St & Edwards St	C-9	ESE	5	<2	0.001	12:33	A - Papermill/Process Water
Paterson S & Edwards St	C-10	E	6	0	0.001	12:30	None
Parsons St & Porter St	C-11	E	6	0	0	12:27	None
St. Mary Catholic Church Parking Lot	C-12	SE	6	0	0.001	11:45	None
Borgress Medical Center Entrance Parking Lot	C-13	E	6	0	0	11:51	None
Neurosurgery of Kalamazoo Parking Lot	C-14	E	4	0	0	11:56	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	E	4	0	0	11:52	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SE	6	0	0.001	11:42	None
Front Entrance of Mt. Olivet Cemetery	C-17	ESE	5	0	0	12:03	None
1248 Blakeslee Street	C-18	E	7	<2	0.001	12:46	C - Other, Bonfire
Union St & E. Hopkins St.	C-19	ENE	6	0	0	12:39	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/21/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	W	8	0	0	8:39	None
Paterson St & Porter St	P-2	W	8	0	0	8:36	None
Graphic Packaging – Gate 2	P-3	WNW	7	0	0	8:28	None
Graphic Packaging – Gate 5	P-4	NW	4	0	0	8:26	None
Graphic Packaging – Gate 6	P-5	NW	4	0	0	8:24	None
Community Receptors		#					
Paterson St & Harrison St	C-1	W	6	0	0	8:46	None
Harrison St at WWT Plant gate	C-2	W	6	0	0	8:43	None
Kalamazoo River Watershed Council Parking Lot	C-3	W	6	<2	0.001	9:11	B - Municipal Wastewater
Kalamazoo Township Parking Lot	C-4	W	5	0	0	9:17	None
Riverview Dr & Old Riverview Sav Rd	C-5	W	5	0	0	9:20	None
East side of Verburg Park Parking Lot	C-6	WSW	5	0	0	8:49	None
Kalamazoo County Juvenile Home Parking Lot	C-7	W	6	0	0.001	8:57	None
Dunkley St & Edwards St	C-8	W	7	0	0	9:47	None
Prouty St & Edwards St	C-9	W	7	0	0	9:45	None
Paterson S & Edwards St	C-10	W	7	0	0	9:43	None
Parsons St & Porter St	C-11	WNW	8	0	0	9:40	None
St. Mary Catholic Church Parking Lot	C-12	WSW	4	0	0	8:55	None
Borgress Medical Center Entrance Parking Lot	C-13	W	6	0	0.001	9:00	None
Neurosurgery of Kalamazoo Parking Lot	C-14	WSW	7	0	0	9:06	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	WSW	7	0	0	9:02	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	WSW	4	0	0	8:52	None
Front Entrance of Mt. Olivet Cemetery	C-17	W	8	0	0	9:14	None
1248 Blakeslee Street	C-18	W	7	0	0	9:58	None
Union St & E. Hopkins St.	C-19	W	7	0	0	9:51	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/23/20

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SSW	7	0	0	11:25	None
Paterson St & Porter St	P-2	SSW	7	0	0	11:23	None
Graphic Packaging – Gate 2	P-3	SSW	6	0	0	11:19	None
Graphic Packaging – Gate 5	P-4	SSW	6	0	0	11:17	None
Graphic Packaging – Gate 6	P-5	S	7	<4	0	11:14	A - Papermill/Process Water B - Municipal Wastewater
Community Receptors		#					
Paterson St & Harrison St	C-1	SSW	6	0	0	11:34	None
Harrison St at WWT Plant gate	C-2	SSW	6	0	0	11:32	None
Kalamazoo River Watershed Council Parking Lot	C-3	SSW	5	<2	0	12:14	A - Papermill/Process Water
Kalamazoo Township Parking Lot	C-4	S	5	0	0	12:20	None
Riverview Dr & Old Riverview Sav Rd	C-5	S	6	0	0	12:23	None
East side of Verburg Park Parking Lot	C-6	SSW	6	0	0	11:50	None
Kalamazoo County Juvenile Home Parking Lot	C-7	SSW	6	0	0	12:02	None
Dunkley St & Edwards St	C-8	SSW	7	0	0	12:35	None
Prouty St & Edwards St	C-9	SSW	7	0	0	12:33	None
Paterson S & Edwards St	C-10	S	7	0	0	12:30	None
Parsons St & Porter St	C-11	S	7	0	0	12:27	None
St. Mary Catholic Church Parking Lot	C-12	SSW	6	0	0	11:58	None
Borgress Medical Center Entrance Parking Lot	C-13	SSW	6	0	0	12:04	None
Neurosurgery of Kalamazoo Parking Lot	C-14	SSW	6	0	0	12:10	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	SSW	6	0	0	12:06	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SSW	6	<2	0	11:55	C - Other, Fast Food
Front Entrance of Mt. Olivet Cemetery	C-17	S	5	0	0	12:17	None
1248 Blakeslee Street	C-18	SW	6	0	0	12:45	None
Union St & E. Hopkins St.	C-19	S	7	0	0	12:38	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/27/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	WSW	2	0	0.001	14:20	None
Paterson St & Porter St	P-2	WSW	1	0	0	14:17	None
Graphic Packaging – Gate 2	P-3	WNW	2	0	0	14:11	None
Graphic Packaging – Gate 5	P-4	WNW	3	0	0	14:09	None
Graphic Packaging – Gate 6	P-5	WNW	2	0	0	14:07	None
Community Receptors		#					
Paterson St & Harrison St	C-1	SW	1	0	0	14:33	None
Harrison St at WWT Plant gate	C-2	W	2	0	0	14:28	None
Kalamazoo River Watershed Council Parking Lot	C-3	WSW	2	<2	0	15:02	A - Papermill/Process Water
Kalamazoo Township Parking Lot	C-4	SW	2	0	0.001	15:08	None
Riverview Dr & Old Riverview Sav Rd	C-5	SSW	2	0	0.002	15:12	None
East side of Verburg Park Parking Lot	C-6	SW	1	0	0	14:34	None
Kalamazoo County Juvenile Home Parking Lot	C-7	SW	2	0	0.001	14:42	None
Dunkley St & Edwards St	C-8	S	2	0	0	15:25	None
Prouty St & Edwards St	C-9	S	2	0	0	15:22	None
Paterson S & Edwards St	C-10	WNW	0.3	0	0.002	15:19	None
Parsons St & Porter St	C-11	SSW	2	0	0	15:16	None
St. Mary Catholic Church Parking Lot	C-12	WSW	3	0	0.001	14:40	None
Borgress Medical Center Entrance Parking Lot	C-13	SW	2	0	0	14:46	None
Neurosurgery of Kalamazoo Parking Lot	C-14	SSW	2	0	0	14:54	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	SW	2	0	0	14:48	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SW	2	0	0	14:57	None
Front Entrance of Mt. Olivet Cemetery	C-17	WSW	2	0	0.001	15:05	None
1248 Blakeslee Street	C-18	SW	2	0	0	15:35	None
Union St & E. Hopkins St.	C-19	SSW	2	0	0	15:28	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/29/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	NW	0.1	<4	0.008	8:32	B - Municipal Wastewater
Paterson St & Porter St	P-2	NW	0.9	0	0.003	8:29	None
Graphic Packaging – Gate 2	P-3	NW	0.6	0	0	8:25	None
Graphic Packaging – Gate 5	P-4	NW	0.6	0	0	8:23	None
Graphic Packaging – Gate 6	P-5	NNW	3	0	0.001	8:20	None
Community Receptors		#					
Paterson St & Harrison St	C-1	NW	1	<2	0.003	8:41	A - Papermill/Process Water
Harrison St at WWT Plant gate	C-2	NW	1	<2	0.003	8:37	B - Municipal Wastewater
Kalamazoo River Watershed Council Parking Lot	C-3	NNW	2	0	0.002	9:08	None
Kalamazoo Township Parking Lot	C-4	NNW	3	0	0.002	9:13	None
Riverview Dr & Old Riverview Sav Rd	C-5	NNW	3	0	0.002	9:15	None
East side of Verburg Park Parking Lot	C-6	NNW	2	<2	0.003	8:44	C - Other, Construction
Kalamazoo County Juvenile Home Parking Lot	C-7	NNW	2	0	0.001	8:53	None
Dunkley St & Edwards St	C-8	NNW	3	0	0	9:27	None
Prouty St & Edwards St	C-9	NNW	3	0	0.002	9:24	None
Paterson S & Edwards St	C-10	NNW	3	0	0.002	9:22	None
Parsons St & Porter St	C-11	NNW	3	0	0.003	9:20	None
St. Mary Catholic Church Parking Lot	C-12	N	6	0	0.002	8:51	None
Borgress Medical Center Entrance Parking Lot	C-13	NNW	1	0	0.001	8:57	None
Neurosurgery of Kalamazoo Parking Lot	C-14	NW	0.5	0	0.001	9:03	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	NNW	1	0	0	8:59	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	NNW	2	0	0.001	8:48	None
Front Entrance of Mt. Olivet Cemetery	C-17	NNW	2	0	0.002	9:10	None
1248 Blakeslee Street	C-18	NNW	3	0	0.002	9:31	None
Union St & E. Hopkins St.	C-19	NNW	3	0	0.002	9:29	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 10/30/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	NW	4	<2	0	14:10	A - Papermill/Process Water
Paterson St & Porter St	P-2	NW	4	0	0	14:07	None
Graphic Packaging – Gate 2	P-3	NW	7	0	0.002	13:56	None
Graphic Packaging – Gate 5	P-4	NNW	6	0	0	13:58	None
Graphic Packaging – Gate 6	P-5	NNW	6	0	0	14:00	None
Community Receptors		#					
Paterson St & Harrison St	C-1	NW	6	<4	0.003	14:56	C - Other, Roofing Tar
Harrison St at WWT Plant gate	C-2	WNW	4	<2	0.001	14:14	A - Papermill/Process Water
Kalamazoo River Watershed Council Parking Lot	C-3	NNW	4	<2	0.002	14:44	A - Papermill/Process Water
Kalamazoo Township Parking Lot	C-4	NNW	6	0	0.002	14:49	None
Riverview Dr & Old Riverview Sav Rd	C-5	NW	6	0	0.001	14:52	None
East side of Verburg Park Parking Lot	C-6	NW	3	0	0.005	14:18	None
Kalamazoo County Juvenile Home Parking Lot	C-7	NNW	5	0	0.003	14:29	None
Dunkley St & Edwards St	C-8	NNW	7	0	0	15:05	None
Prouty St & Edwards St	C-9	NNW	7	0	0.003	15:03	None
Paterson S & Edwards St	C-10	NW	6	0	0.001	15:01	None
Parsons St & Porter St	C-11	NW	6	0	0.001	14:59	None
St. Mary Catholic Church Parking Lot	C-12	NNW	5	0	0	14:27	None
Borgress Medical Center Entrance Parking Lot	C-13	NNW	3	0	0.001	14:33	None
Neurosurgery of Kalamazoo Parking Lot	C-14	NW	3	0	0.002	14:38	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	NNW	3	0	0	14:34	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	NW	5	<2	0.002	14:23	A - Papermill/Process Water
Front Entrance of Mt. Olivet Cemetery	C-17	NNW	6	0	0.001	14:47	None
1248 Blakeslee Street	C-18	WNW	2	0	0.001	15:15	None
Union St & E. Hopkins St.	C-19	NNW	5	0	0.001	15:08	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 11/2/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SW	2	0	0.005	8:27	None
Paterson St & Porter St	P-2	SSW	3	0	0.003	8:23	None
Graphic Packaging – Gate 2	P-3	SSW	3	0	0.002	8:19	None
Graphic Packaging – Gate 5	P-4	SSW	3	0	0.004	8:17	None
Graphic Packaging – Gate 6	P-5	SSW	2	0	0.003	8:15	None
Community Receptors		#					
Paterson St & Harrison St	C-1	SSW	2	0	0.003	8:34	None
Harrison St at WWT Plant gate	C-2	SW	2	0	0.005	8:31	None
Kalamazoo River Watershed Council Parking Lot	C-3	SSW	3	<2	0.003	8:59	A - Papermill/Process Water
Kalamazoo Township Parking Lot	C-4	SSW	3	0	0.005	9:05	None
Riverview Dr & Old Riverview Sav Rd	C-5	SW	4	0	0.004	9:11	None
East side of Verburg Park Parking Lot	C-6	SSW	2	0	0.003	8:36	None
Kalamazoo County Juvenile Home Parking Lot	C-7	SSW	2	0	0.003	8:45	None
Dunkley St & Edwards St	C-8	SSW	3	0	0.001	9:21	None
Prouty St & Edwards St	C-9	SW	4	0	0.001	9:19	None
Paterson S & Edwards St	C-10	SW	4	0	0.003	9:17	None
Parsons St & Porter St	C-11	SW	4	0	0.002	9:15	None
St. Mary Catholic Church Parking Lot	C-12	SSW	2	0	0.004	8:42	None
Borgress Medical Center Entrance Parking Lot	C-13	SSW	3	0	0.003	8:48	None
Neurosurgery of Kalamazoo Parking Lot	C-14	SSW	3	0	0.003	8:55	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	SSW	3	0	0.003	8:50	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SW	1	0	0.005	8:40	None
Front Entrance of Mt. Olivet Cemetery	C-17	SSW	3	0	0.004	9:03	None
1248 Blakeslee Street	C-18	SW	4	0	0.001	9:31	None
Union St & E. Hopkins St.	C-19	SW	4	0	0.001	9:24	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 11/4/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	S	9	0	0.001	14:15	None
Paterson St & Porter St	P-2	S	9	0	0.001	14:12	None
Graphic Packaging – Gate 2	P-3	SSW	10	0	0.001	14:01	None
Graphic Packaging – Gate 5	P-4	SW	10	0	0.001	14:03	None
Graphic Packaging – Gate 6	P-5	SW	10	0	0	14:05	None
Community Receptors		#					
Paterson St & Harrison St	C-1	SSW	11	0	0.002	14:23	None
Harrison St at WWT Plant gate	C-2	SSW	9	<2	0.003	14:19	C - Other, Roofing Tar
Kalamazoo River Watershed Council Parking Lot	C-3	SSW	12	0	0	14:48	None
Kalamazoo Township Parking Lot	C-4	SSW	10	0	0.001	14:53	None
Riverview Dr & Old Riverview Sav Rd	C-5	SSW	10	0	0.001	14:56	None
East side of Verburg Park Parking Lot	C-6	SSW	11	0	0.001	14:25	None
Kalamazoo County Juvenile Home Parking Lot	C-7	SSW	8	0	0.001	14:33	None
Dunkley St & Edwards St	C-8	SW	10	0	0	15:07	None
Prouty St & Edwards St	C-9	SSW	9	0	0	15:05	None
Paterson S & Edwards St	C-10	SSW	9	0	0.005	15:03	None
Parsons St & Porter St	C-11	SW	10	0	0.001	15:00	None
St. Mary Catholic Church Parking Lot	C-12	SSW	9	0	0.001	14:31	None
Borgress Medical Center Entrance Parking Lot	C-13	SSW	11	0	0	14:37	None
Neurosurgery of Kalamazoo Parking Lot	C-14	SSW	14	0	0.001	14:43	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	SSW	11	0	0.001	14:39	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SSW	9	<2	0.001	14:28	C - Other, Fast Food
Front Entrance of Mt. Olivet Cemetery	C-17	SSW	12	0	0.001	14:50	None
1248 Blakeslee Street	C-18	SSW	8	0	0	15:17	None
Union St & E. Hopkins St.	C-19	SW	10	0	0.001	15:10	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 11/5/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SSW	6	0	0.001	11:20	None
Paterson St & Porter St	P-2	SSW	5	0	0.001	11:16	None
Graphic Packaging – Gate 2	P-3	SSW	5	0	0	11:13	None
Graphic Packaging – Gate 5	P-4	SSW	4	0	0.003	11:11	None
Graphic Packaging – Gate 6	P-5	SSW	4	<2	0	11:08	C - Other, Burner
Community Receptors		#					
Paterson St & Harrison St	C-1	SSW	5	0	0.003	11:28	None
Harrison St at WWT Plant gate	C-2	SW	6	<7	0.005	11:23	C - Other, Roofing Tar
Kalamazoo River Watershed Council Parking Lot	C-3	SSW	4	<2	0.001	11:59	C - Other, Roofing Tar
Kalamazoo Township Parking Lot	C-4	WSW	6	<2	0.001	12:04	C - Other, Roofing Tar
Riverview Dr & Old Riverview Sav Rd	C-5	SW	6	0	0.001	12:12	None
East side of Verburg Park Parking Lot	C-6	SW	6	0	0.001	11:32	None
Kalamazoo County Juvenile Home Parking Lot	C-7	SSW	4	0	0	11:41	None
Dunkley St & Edwards St	C-8	ESE	6	0	0.001	12:23	None
Prouty St & Edwards St	C-9	ESE	6	0	0.001	12:21	None
Paterson S & Edwards St	C-10	WSW	5	0	0.005	12:19	None
Parsons St & Porter St	C-11	SW	6	0	0.001	12:16	None
St. Mary Catholic Church Parking Lot	C-12	SSW	4	0	0.001	11:38	None
Borgress Medical Center Entrance Parking Lot	C-13	SSW	5	0	0.001	11:45	None
Neurosurgery of Kalamazoo Parking Lot	C-14	SW	6	0	0.001	11:50	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	SSW	5	0	0	11:46	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SW	6	<2	0.001	11:35	C - Other, Fast Food
Front Entrance of Mt. Olivet Cemetery	C-17	SSW	4	<2	0.001	12:01	C - Other, Roofing Tar
1248 Blakeslee Street	C-18	SW	7	0	0.001	12:33	None
Union St & E. Hopkins St.	C-19	SW	6	0	0.001	12:26	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)



**Graphic Packaging International
Scentometer Readings
Perimeter & Community Locations**

Date 11/9/2020

Field Person RGK

Locations		Wind Direction	Wind Speed	Scentometer Reading	H ₂ S Reading (ppm)	Time	Odor Description
Perimeter Locations		#					
Paterson St & Walbridge St	P-1	SSW	7	0	0	11:47	None
Paterson St & Porter St	P-2	SSE	8	0	0	11:43	None
Graphic Packaging – Gate 2	P-3	S	7	0	0.003	11:30	None
Graphic Packaging – Gate 5	P-4	S	7	0	0.004	11:33	None
Graphic Packaging – Gate 6	P-5	S	7	<2	0.002	11:36	C - Other, Burner
Community Receptors		#					
Paterson St & Harrison St	C-1	S	7	0	0.001	11:53	None
Harrison St at WWT Plant gate	C-2	SSW	7	0	0.001	11:50	None
Kalamazoo River Watershed Council Parking Lot	C-3	S	8	0	0.001	12:21	None
Kalamazoo Township Parking Lot	C-4	S	5	0	0.001	12:26	None
Riverview Dr & Old Riverview Sav Rd	C-5	S	8	0	0	12:30	None
East side of Verburg Park Parking Lot	C-6	S	7	0	0	11:56	None
Kalamazoo County Juvenile Home Parking Lot	C-7	S	7	0	0	12:06	None
Dunkley St & Edwards St	C-8	S	9	0	0.001	12:43	None
Prouty St & Edwards St	C-9	SSW	8	0	0	12:40	None
Paterson S & Edwards St	C-10	SSW	8	0	0.001	12:38	None
Parsons St & Porter St	C-11	S	8	<2	0.001	12:34	C - Other, Fast Food
St. Mary Catholic Church Parking Lot	C-12	S	7	0	0.001	12:03	None
Borgress Medical Center Entrance Parking Lot	C-13	SSW	6	0	0	12:09	None
Neurosurgery of Kalamazoo Parking Lot	C-14	S	7	0	0	12:16	None
Borgress Medical at Lawrence Educational Ctr Parking Lot	C-15	SSW	6	0	0.001	12:11	None
E Paterson St & Riverview Dr at Walgreens Parking Lot	C-16	SSW	7	<2	0	12:00	C - Other, Fast Food
Front Entrance of Mt. Olivet Cemetery	C-17	S	5	0	0.001	12:23	None
1248 Blakeslee Street	C-18	SSW	6	0	0	12:54	None
Union St & E. Hopkins St.	C-19	S	9	0	0	12:45	None

A - Papermill/Process Water
B - Municipal Wastewater

C - Other (not related to Papermill or Municipal Wastewater)

Appendix 3

Date: _____

**KALAMAZOO
BOARDMILL**

Wastewater Treatment Plant ORP Log

Shift	Operator Initial's
1st	
2nd	
3rd	

--	--

Time	Clarifier Outer Ring ORP	Reservoir ORP	Center Ring Dissolved Oxygen (>1.0 mg/L)	Outer Ring Dissolved Oxygen (.01 to 2mg/L)	Temp Outer Ring	During K1 outages Peroxide will be throttled back to conserve cost.
OBG						Note H2S, Temp of OR, Peroxide Flow & O2 Flow
7:00 AM						Note: Flow :
9:00 AM						Note: Flow :
11:00 AM						Note: Flow :
1:00 PM						Note: Flow :
3:00 PM						Note: Flow :
5:00 PM						Note: Flow :
7:00 PM						Note: Flow :
9:00 PM						Note: Flow :
11:00 PM						Note: Flow :
1:00 AM						Note: Flow :
3:00 AM						Note: Flow :
5:00 AM						Note: Flow :

• If busy and unable to complete a sample and test before the next cycle, note reason in note box • Complete the DO testing prior to the ORP testing, the same sample should be able to be used. •

Notes: • Document time of flow change and rate • Note retests •

Shift	Comments, Operating Problems, Safety,
1st	
	Sludge:
2nd	
	Sludge:
3rd	
	Sludge:

Appendix 4

Monthly Jerome Meter Readings - 9 Locations

Wind

Date	Time	Location	Reading 1	Reading 2	Reading 3	Average	Notes
			H2S (ppb)	H2S (ppb)	H2S (ppb)	H2S (ppb)	
		Parking Lot B					
		N. of Stock Prep Bldg					
		Sludge Pile					
		Clarifier					
		K1 – Coating Kitchen					
		K3 Dryer Mezzanine					
		AES Building					
		Stock Prep Bldg Pulper					
		Sludge Drum Filter Outlet					
		Amb. Air - Vis. Lot (AA)					
		Zero Air Filter (ZAF)	0.00				

All Readings in PPB

odalog =

Appendix 5

KALAMAZOO

Wastewater Treatment Plant Log

BOARDMILL

Date: _____

Shift	Operator Initial's
1st	
2nd	
3rd	

River Water Make-up Pump			
Position	Status	Amps	Time
LV pump		N/A	
On/Off			

Sludge Holding Tank Usage	
Time Start	
Time Stop	
Depth, ft.	

Time	Wet Well pH	Strainer Operation	Torque (x1000 ft. lbs.)	Sludge Blanket Depth, (in.)
OBG'S	6.3 - 8.8pH	Normal/Plugged/ Flooded	Maximum 50 (See Torque Mgt.)	
7:00 AM				
8:00 AM				
9:00 AM				
10:00 AM				
11:00 AM				
12:00 PM				
1:00 PM				
2:00 PM				
3:00 PM				
4:00 PM				
5:00 PM				
6:00 PM				
7:00 PM				
8:00 PM				
9:00 PM				
10:00 PM				
11:00 PM				
12:00 AM				
1:00 AM				
2:00 AM				
3:00 AM				
4:00 AM				
5:00 AM				
6:00 AM				
		Daily Average		

Process Flows	
City Discharge	
Total, Gals	
River make-Up	
Total, Gals	
Wet Well Flow	
Chemical	Gallons/Inches / Flow Rate
Peroxide Tank	
Flow Rate	
Defoamer	
Biocide	
Polymer, Cat.	
Oxygen Tank	
Flow Rate	

Time	Clarifier Condition
7:00	
11:00	
15:00	
19:00	
23:00	
3:00	

Shift	1st	2nd	3rd
Screw Press Run Time			
Vacuum Drum Filter Run Time			

H2S Reading		
Shift	Location	Reading
1st		
2nd		
3rd		

Avg. pH 6.2pH - 9pH	Reading Location	pH and Temperature Readings			OBG's	Reservoir overflow	% Solids	
		1st	2nd	3rd				
		DV / HH	DV / HH	DV / HH				
	City pH meter	/	/	/	< 6.2pH - 9.0pH			
	CTR Ring pH				< 6.0pH - 9.0pH			
	Clarified pH				< 6.0pH - 9.0pH	Drum		
	Water Temp. High		Water Temp. Low			Screw Press		

OR = outer ring, AES = AES room
 City = Flume Res =
 Reservoir overflow

Shift	Comments, Operating Problems, Corrective Actions, and Safety		
1st		Time	Turbidity Reading
2nd		Time	Turbidity Reading
3rd		Time	Turbidity Reading

Appendix 6

EVS and Jerome Meter Comparison log

Wind

Initials

Other measurement activities

Date	Location		Reading 1	Reading 2	Reading 3	Reading 4	Reading 5	Reading 6	Reading 7
			H2S (ppb)	H2S (ppb)	H2S (ppb)	H2S (ppb)	H2S (ppb)	H2S (ppb)	H2S (ppb)
		Time							
		Jerome Meter Reading							
		EVS reading							
		Time							
		Jerome Meter Reading							
		EVS reading							
		Time							
		Jerome Meter Reading							
		EVS reading							
		Time							
		Jerome Meter Reading							
		EVS reading							
		Time							
		Jerome Meter Reading							
		EVS reading							
		Time							
		Jerome Meter Reading							
		EVS reading							
	Zero Air Filter (ZAF)								

A minimum of 3 readings should be taken at each location. The maximum is a judgement decision based on what is being detected.