

21 August 2018

Mr. Michael J. Cruden, P.E.
Director
Remedial Bureau E
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7017

**Subject: Role of HVAC Operation on Mitigating Vapor Intrusion
Former Sperry Remington Site – North Portion (#c808022)
777 South Main Street, City of Elmira, Chemung County, NY**

Dear Mr. Cruden:

On behalf of Unisys Corporation (Unisys), Geosyntec Consultants, Inc. and its New York engineering and geology affiliate, Beech and Bonaparte Engineering, P.C. (collectively, Geosyntec) are submitting this letter report on the evaluation of the role of the heating ventilation and air conditioning (HVAC) system operation in mitigating the vapor intrusion (VI) potential at Elmira High School (EHS, formerly known as Southside High School) on the Former Sperry Remington Site – North Portion (Site #c808022) (Site) located at 777 South Main Street in Elmira, Chemung County, New York. The evaluation was requested by the New York State Department of Environmental Conservation (NYSDEC).

INTRODUCTION

The EHS property has been the subject of multiple environmental investigations between 1998 and 2018. NYSDEC and the New York State Department of Health (NYSDOH) conducted investigations in 1997 and 2000 to evaluate whether VI was occurring or had the potential to affect indoor air quality at the school. Investigation results from this work indicated volatile organic compounds (VOCs) were present below the building but were not considered to be a concern for indoor air quality at the school because exposure at the reported levels in indoor air were not expected to be a health concern (NYSDOH, 2003).

In March 2010, NYSDOH issued a Health Consultation Report (NYSDOH, 2010) that evaluated historic indoor and outdoor air quality results as well as sub-slab vapor samples collected by Elmira City School District (ECSD) in 2009. NYSDOH concluded that “most of the compounds present in the indoor air of the school are at concentrations consistent with levels usually found in the indoor air of buildings not affected by environmental contamination and do not represent a

concern”, but that “several compounds were detected at levels above those commonly found in indoor air...” and that in some locations “chlorinated solvents and Freons were found at relatively elevated levels in the air beneath the school.” NYSDOH recommended that:

- The school's heating, ventilating and air-conditioning system continue to be operated in a manner to prevent sub-slab air from being drawn into the building (particularly at times when the school is occupied);
- Routine monitoring (e.g., of the pressure differentials between the sub-slab and building interior) be continued to verify that this mitigation measure continues to be effective;
- Additional sampling be completed to evaluate the indoor air quality and the pressure differentials between the inside and outside of the building in the area of Room-127. The samples should be collected during periods when the school's heating, ventilating and air-conditioning system is operating in a positive pressure mode to obtain a more representative sample of the exposure scenario; and
- If necessary, adjustments be made to the school's heating, ventilating and air-conditioning system in the area of Room-127 to reduce the concentration of trichloroethene (TCE) in the indoor air to within background ranges.

Since 2010, ECSD has enhanced the HVAC systems at the school and has continued to operate the HVAC system during periods of building occupancy, monitor indoor air quality and collect differential pressure data. In addition, ECSD installed several sub-slab depressurization systems (SSDSs) to mitigate the VI potential during construction of the K-Wing Science Addition in 2009, renovation of the gymnasium in 2010, and construction of a cafeteria addition in 2013.

In the summer of 2014, Geosyntec performed a comprehensive assessment of the VI potential at twenty-three (23) potential areas of concern (PAOCs) below the school that had been selected by NYSDEC (Geosyntec, 2014). The assessment program included:

- Collection of field-based screening level data suitable for comparison with NYSDOH VI guidance matrices from samples of indoor air and sub-slab soil vapor;
- Collection of laboratory-based chemical data;
- Collection of high volume sampling (HVS) flow and vacuum data to assess the transmissive properties of the sub-slab fill material;
- Collection of differential pressure data to assess the impacts of operation of the school HVAC system on cross-slab air pressures and;

- Completion of a building reconnaissance to assess potential impacts of activities and materials inside the building that could influence indoor air concentrations of VOCs.

As a result of the Geosyntec VI assessment an additional sub-slab vapor mitigation was installed beneath the F Wing to address sub-slab TCE and cis-1,2-dichloroethene (cis-1,2-DCE) concentrations that exceeded two hundred fifty (250) micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), the value at which New York State Vapor Intrusion Guidance Matrix 1 (NYSDOH, 2006) recommends mitigation to address potential exposures due to vapor intrusion. It should be noted that this system was installed as a precautionary measure even though there were no exceedances of the NYSDOH Guideline Value of TCE in air.

In May 2018, NYSDEC requested a supplemental VI evaluation of EHS to confirm that the current SSDSs are operating at the optimal settings and to evaluate the need (if necessary) for upgrades or changes in the operating procedures, including operation of the HVAC system (NYSDEC, 2018a). Unisys submitted a letter report to the NYSDEC on June 8, 2018 that addressed operation of the SSDSs (Beech and Bonaparte, 2018a). On June 18, 2018, Unisys submitted a Supplemental Vapor Intrusion Assessment (SVIA) Work Plan to the NYSDEC (Beech and Bonaparte, 2018b). The SVIA Work Plan was approved by the NYSDEC on June 21, 2018 (NYSDEC, 2018b) and field work associated with the SVIA Work Plan commenced on June 27, 2018.

The validated SVIA indoor air, outdoor air and sub-slab sampling results are included as Appendix A. Based on the sub-slab results a subslab vapor mitigation system is being installed beneath the Music Wing where sub-slab TCE and cis-1,2-DCE concentrations exceeded sixty (60) $\mu\text{g}/\text{m}^3$, the value at which New York State Vapor Intrusion Guidance Matrix A (NYSDOH, 2017) recommends mitigation to address potential exposures due to vapor intrusion. No other compounds were detected in any indoor air or sub-slab samples at concentrations that required additional measures to mitigate the VI potential. It should be noted that this system is being installed as a precautionary measure even though there were no exceedances of the NYSDOH Guideline Value of TCE in air at that location or elsewhere. On August 8, 2018 Unisys submitted a proposed SSDS mitigation design to NYSDEC to address the vapor intrusion potential in the Music Wing. NYSDEC approved the design on August 17, 2018 and requested Unisys prepare a stand-alone letter report to address whether ongoing operation of the EHS HVAC system in “building occupied” (occupied) status on a 24 hour per day, seven day per week basis is needed to inhibit VI for potential constituents of concern in the areas within and beyond those being mitigated by SSDS.

This HVAC letter report is intended to address NYSDEC’s August 17, 2018 HVAC evaluation request. A comprehensive report that documents all of the activities described in the SVIA Work Plan will be submitted to the NYSDEC after the proposed mitigation system has been installed in the Music Wing and post-mitigation indoor sampling results have been evaluated.

EVALUATION OF THE ROLE OF HVAC OPERATION

The ECSD is currently running the HVAC system at EHS as if the building were occupied on a 24 hour/day seven day/week basis as required by the NYSDEC and NYSDOH (personal communication from M. Dunn, ECSD). There are potential benefits to operating the HVAC system in that configuration: in some locations, it creates or enhances positive cross-slab pressures that reduce the potential for VI; and, it potentially reduces the concentrations of VOCs in the indoor air as a result of dilution associated with an increase in the percentage of make-up air (i.e., fresh air). There are, however, significant drawbacks to full-time HVAC operation in occupied mode: it creates an operating condition that the existing HVAC system was not specifically designed to perform (personal communication from M. Dunn, ECSD).

Impact of HVAC Operation on Differential Pressures

The differential pressure monitoring results obtained as part of the SVIA are summarized in **Table 1**. Differential pressures at a given point were measured over an approximately five (5) to ten (10)-minute period when the HVAC system was operating in unoccupied mode on June 28, 2018 and again when the HVAC system was operating in occupied mode on June 29, 2018. Cross-slab pressure monitoring logs from Room 100 and Room 151 are presented on **Figure 1** and **Figure 2**, respectively. Most of the measured pressures were positive, indicating that the areas of the building where the probes were located were positively pressurized at the time of the measurement. At most locations, the measured pressures were about the same whether the HVAC was in occupied or unoccupied mode. The pressure logs from Room 100 and Room 151 indicate that the measured pressures are stable over a period of hours but can exhibit departures from the mean over short time periods. Consequently, the short-term pressure monitoring results in **Table 1** may not fully represent long term average conditions.

The pressure monitoring results from areas at or near the SSDSs continue to reflect the presence of a robust vacuum field in the areas where SSDSs were installed to mitigate the potential for VI. The June 2018 cross-slab differential pressure measurements from the temporary sub-slab points installed in Room 120 and Room 135 indicate that the capture zones associated with the F Wing and Cafeteria Retrofit SSDSs, respectively, extend beyond the previously designated boundaries of those systems. The results demonstrate that operation of the HVAC system in occupied mode does not substantially change the magnitude of the measured differential pressures in the SSDSs and is not necessary to maintain their effectiveness.

Impact of HVAC Operation on Indoor Air Quality

A detailed analysis of the distribution of all the VOCs detected in indoor air, outdoor air and sub-slab vapor is beyond the intended scope of this report. Detections of compounds in indoor air,

outdoor air, sub-slab (conventional, HVS and SSDS stack) samples are summarized in **Appendix A** and a discussion of the key findings is provided below.

NYSDOH VI Matrix A, B and C Compounds

NYSDOH Matrix A Compounds include: TCE, cis-1,2-DCE, 1,1-Dichloroethene (1,1-DCE), and Carbon Tetrachloride (CT). Matrix B Compounds include: Tetrachloroethene (PCE), 1,1,1-Trichloroethane (TCA) and Methylene Chloride (MC). Vinyl Chloride (VC) is the only compound currently assigned to Matrix C. Neither 1,1-DCE nor VC was detected in any sample. They are not discussed further.

TCE and cis-1,2-DCE were the only two (2) of the eight (8) Matrix compounds that were detected in the indoor air and sub-slab samples at concentrations with a Matrix-based recommended action of mitigation.

Trichloroethene

TCE detections in indoor air, sub-slab, and HVS samples are summarized in **Table 3**. None of the detected TCE concentrations in indoor air exceeded the NYSDOH Guideline value of two (2) $\mu\text{g}/\text{m}^3$. TCE was detected in indoor samples at three (3) locations when the HVAC was operating in unoccupied mode and in three (3) samples when the HVAC was operating in occupied mode, it was never detected in both samples from the same room. The only detection of TCE in a sub-slab sample outside of the existing or planned SSDS capture zones was at Room 109 at a concentration of 11 $\mu\text{g}/\text{m}^3$, which is less than sixty (60) $\mu\text{g}/\text{m}^3$, the value at which New York State Vapor Intrusion Guidance Matrix A (NYSDOH, 2017) recommends mitigation to address potential exposures due to vapor intrusion. TCE was not detected in either indoor air sample from Room 109.

These results indicate that operation of the HVAC system in occupied mode has no discernable benefit in inhibiting VI or reducing exposures to TCE in indoor air.

Cis-1,2-dichloroethene

Cis,1,2-DCE detections in indoor air, sub-slab, and HVS samples are summarized in **Table 4**. None of the detected concentrations of cis-1,2-DCE in indoor air exceeded the NYSDOH Guideline value of two (2) $\mu\text{g}/\text{m}^3$. Cis-1,2-DCE was detected in one (1) of the two (2) duplicate (side by side) Room 100 indoor air samples collected with the HVAC in occupied mode at an estimated concentration of 0.15 $\mu\text{g}/\text{m}^3$, which is slightly over the detection limit, but was not detected in the companion sample at a reporting level of 0.12 $\mu\text{g}/\text{m}^3$. A sub-slab sample was not collected at Room 100 in 2018, but sub-slab and HVS samples were collected at the hallway adjacent to the east side of the room in 2014. The conventional 2014 sub-slab concentration was

non-detect at $4.3 \mu\text{g}/\text{m}^3$ and the initial and final HVS sample concentrations were non-detect at $6.7 \mu\text{g}/\text{m}^3$ and non-detect at $4.3 \mu\text{g}/\text{m}^3$, respectively. As a result, the presence of cis-1,2-DCE in indoor air in Room 100 is unlikely to be due to vapor intrusion.

Cis-1,2-DCE was detected in the Room 149 HVAC unoccupied indoor air sample at a concentration of $1.6 \mu\text{g}/\text{m}^3$ but was not detected in the companion HVAC occupied sample at a reporting level of $0.13 \mu\text{g}/\text{m}^3$. The presence of cis-1,2-DCE in indoor air in Room 149 is unlikely to be due to vapor intrusion because it was not detected in any of the sub-slab samples collected from Room 151 or Room 148 where the reporting limits ranged from 4.4 to $4.8 \mu\text{g}/\text{m}^3$.

These results indicate that operation of the HVAC system in occupied mode has no discernable benefit in inhibiting VI at either location.

Carbon Tetrachloride

CT detections in indoor air, sub-slab, and HVS samples are summarized in **Table 5**. CT was detected in almost all of the indoor air and outdoor air samples at concentrations ranging from $0.34 \mu\text{g}/\text{m}^3$ to $0.62 \mu\text{g}/\text{m}^3$. It was not present in any of the sub-slab samples (which had reporting limits ranging from 6.6 to $14 \mu\text{g}/\text{m}^3$). The presence of CT is attributed to background sources. The HVAC operating condition did not appear to make a discernable difference on CT concentrations in air.

These results indicate that operation of the HVAC system in occupied mode has no discernable benefit in inhibiting VI or reducing exposures to CT in indoor air.

Tetrachloroethene

PCE detections in indoor air, sub-slab, and HVS samples are summarized in **Table 6**. PCE was detected in many of the indoor air samples at concentrations ranging from $0.21 \mu\text{g}/\text{m}^3$ to $1.9 \mu\text{g}/\text{m}^3$, and in the outdoor air samples at concentrations ranging from $0.29 \mu\text{g}/\text{m}^3$ to $0.5 \mu\text{g}/\text{m}^3$. These concentrations are more than an order of magnitude lower than the NYSDOH PCE Air Guideline value of thirty (30) $\mu\text{g}/\text{m}^3$. Most of the detected concentrations in indoor samples were similar to those in outdoor air. PCE was only detected in two (2) sub-slab samples at concentrations ranging from $11 \mu\text{g}/\text{m}^3$ to $14 \mu\text{g}/\text{m}^3$. PCE's presence in indoor and outdoor air samples is attributed to background sources, not vapor intrusion.

These results indicate that operation of the HVAC system in occupied mode has no discernable benefit in inhibiting VI.

1,1,1-Trichloroethane

TCA detections in indoor air, sub-slab, and HVS samples are summarized in **Table 7**. TCA was only detected in indoor air samples collected in Room 139. The detected concentrations were $0.59 \mu\text{g}/\text{m}^3$ when the HVAC system was operating in unoccupied mode and $0.27 \mu\text{g}/\text{m}^3$ when the HVAC system was operating in occupied mode.

TCA's presence in indoor samples is attributed to background sources, not vapor intrusion because TCA was not present in the sub-slab. Operation of the HVAC system in occupied mode has no discernable benefit in inhibiting VI.

Methylene Chloride

MC detections in indoor air, sub-slab, and HVS samples are summarized in **Table 8**. MC was detected in indoor air samples from Room 133, Room 139, Room 149 and the Cafeteria when the HVAC system was operating in unoccupied mode (at concentrations ranging from 1.1 to $1.6 \mu\text{g}/\text{m}^3$), but not when it was operating in occupied mode. Conversely, MC was detected in indoor air samples from Room 168 and Room 148 at concentrations of $2.4 \mu\text{g}/\text{m}^3$ and $8.6 \mu\text{g}/\text{m}^3$, respectively, when the HVAC system was operating in occupied mode, but was not detected when the system was operating in unoccupied mode. MC was also detected at a concentration of $4.2 \mu\text{g}/\text{m}^3$ in the outdoor air sample from the K Wing roof when the HVAC system was operating in occupied mode. MC was not detected in any of the sub-slab samples at reporting limits ranging from 38 to $42 \mu\text{g}/\text{m}^3$. MC's presence in indoor samples is attributed to background sources, not vapor intrusion.

These results indicate that operation of the HVAC system in occupied mode has no discernable benefit in inhibiting VI or reducing exposures to MC in indoor air.

Other Compounds of Interest

Although they are not assigned to a particular NYSDOH Vapor Intrusion Matrix, the distribution of detected concentrations of Freon 12, Chloroform, Acetone, Ethanol and Toluene in the sub-slab, indoor air and outdoor air samples provide useful lines of evidence for assessing the vapor intrusion potential and the role of HVAC operation at various locations.

Freon 12

Freon 12 detections in indoor air, sub-slab, and HVS samples are summarized in **Table 9**. Freon 12 was detected in every sample collected. The measured concentrations of Freon 12 in the sub-slab samples ranged from $7.7 \mu\text{g}/\text{m}^3$ to an estimated concentration of $2800 \mu\text{g}/\text{m}^3$. The concentrations of Freon 12 in paired indoor air (HVAC unoccupied) and sub-slab samples are not

correlated ($R^2=0.28$) (**Figure 3**). The lack of correlation indicates that the presence of Freon 12 in indoor air is primarily due to background sources rather than vapor intrusion.

Operation of the HVAC system in occupied mode has no discernable benefit in inhibiting VI but does appear to reduce the measured concentration of Freon 12 in indoor air at the sampled locations (**Figure 4**).

Chloroform

Chloroform detections in indoor air, sub-slab, and HVS samples are summarized in **Table 10**. Chloroform was detected in many of the indoor air samples at concentrations ranging from 0.2 $\mu\text{g}/\text{m}^3$ to 51 $\mu\text{g}/\text{m}^3$. Chloroform was only detected in the sub-slab in a sample from the Cafeteria retrofit SSDS (10 $\mu\text{g}/\text{m}^3$) and in one of the sub-slab samples from Room 135 at an estimated concentration of 15 $\mu\text{g}/\text{m}^3$, but not in the duplicate sub-slab sample or the HVS samples from that location. Chloroform was present at noticeably higher concentrations in samples collected from rooms near the pool (Room 145 and the Gym). It was present at low concentrations (0.2 to 0.4 $\mu\text{g}/\text{m}^3$) in the outdoor air samples from the K Wing roof. These results indicate that the presence of chloroform in the indoor air is due to background sources, including sources associated with chlorination of the pool.

Operation of the HVAC system in occupied mode has no discernable benefit in inhibiting VI but does appear to reduce the measured concentration of chloroform in indoor air at the sampled locations (**Figure 5**).

Acetone

Acetone detections in indoor air, sub-slab, and HVS samples are summarized in **Table 11**. Acetone was detected in 58 of 63 samples at concentrations ranging from 11 $\mu\text{g}/\text{m}^3$ to an estimated concentration of 1400 $\mu\text{g}/\text{m}^3$. Acetone is a common background compound in air and vapor samples. **Figure 6** is a plot depicting the detected concentration of acetone in indoor air and sub-slab samples along with its reported median and 90% NYSDOH background concentrations in indoor air (NYSDOH, 2006, Appendix C). The lack of an apparent correlation between the indoor air and sub-slab concentrations of acetone and the fact that all of the detected indoor air concentrations and most of the detected sub-slab concentrations are below the 90 percentile of the NYSDOH 2003 background value indicates that the presence of acetone in these samples is largely due to background sources.

Operation of the HVAC system in occupied mode has no discernable benefit in inhibiting VI but does appear to reduce the measured concentration of acetone in indoor air at many of the sampled locations (**Figure 7**).

Ethanol

Ethanol detections in indoor air, sub-slab, and HVS samples are summarized in **Table 12**. Ethanol was detected in 56 of 63 samples at concentrations ranging from 3.2 $\mu\text{g}/\text{m}^3$ to an estimated concentration of 810 $\mu\text{g}/\text{m}^3$. **Figure 8** is a plot depicting the detected concentration of ethanol in indoor air and sub-slab samples along with its reported median and 90% NYSDOH background concentrations in indoor air (NYSDOH, 2006, Appendix C). The lack of an apparent correlation between the indoor air and sub-slab concentrations of ethanol and the fact that all of the indoor air samples and almost all of the sub-slab samples have detected concentrations of ethanol that are lower than the median NYSDOH 2003 background concentration value indicates that the presence of ethanol in these samples is largely due to background sources.

Operation of the HVAC system in occupied mode has no discernable benefit in inhibiting VI but does appear to reduce the measured concentration of ethanol in indoor air at many of the sampled locations (**Figure 9**).

Toluene

Toluene detections in indoor air, sub-slab, and HVS samples are summarized in **Table 13**. Toluene was detected in 51 of 63 samples at concentrations ranging from 0.5 $\mu\text{g}/\text{m}^3$ to an estimated concentration of 2900 $\mu\text{g}/\text{m}^3$. **Figure 10** is a plot depicting the detected concentration of toluene in indoor air and sub-slab samples along with its reported median and 90% NYSDOH 2003 background concentrations in indoor air (NYSDOH, 2006 Appendix C). The lack of an apparent correlation between the indoor air and sub-slab concentrations of toluene and the fact that almost all of the indoor air samples and sub-slab samples have detected concentrations of toluene that are lower than the median NYSDOH 2003 background concentration value indicate that the presence of toluene in these samples is largely due to background sources.

Operation of the HVAC system in occupied mode has no discernable benefit in inhibiting VI but does appear to reduce the measured concentration of toluene in indoor air at many of the sampled locations (**Figure 11**).

CONCLUSIONS

Conclusions of the evaluation are as follows:

- The VI potential at EHS is well understood and any areas where there were sub-slab detections that created a potential for VI-related exposures above NYSDOH Matrix values are being addressed by existing or proposed SSDS mitigation, even in situations where indoor air readings at these locations are below the NYSDOH Guideline values;

- Differential pressure monitoring has demonstrated that the SSDS have continuously maintained a depressurized condition in the sub-slab in their vicinity and that the operation of the HVAC system is not necessary to maintain the efficacy of the SSDS;
- Post-mitigation chemical monitoring results have demonstrated that the SSDS effectively control the potential for VI-related exposures to VOCs at the school. Thus, there is no longer a need for full time operation of the HVAC system in occupied mode to mitigate potential VI-related exposures; and
- Operation of the HVAC system in occupied mode appears to reduce the concentration of some compounds in indoor air, but the detected indoor air concentrations were substantially lower than the NYSDOH established guideline values under both HVAC system operating conditions.

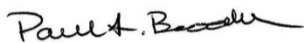
Given these results, NYSDEC and NYSDOH may wish to consult with the ECSD to reassess the need for ongoing full-time operation of the HVAC system in a building occupied condition.

CLOSING

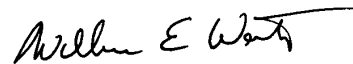
Geosyntec appreciates the opportunity to submit this evaluation to the NYSDEC, NYSDOH and ECSD. If you have any questions, please contact Mr. Kevin Krueger of Unisys at (651) 687-2210.

Sincerely,

Geosyntec Consultants, Inc.



Paul Brookner, P.G.
Sr. Principal/Project Director
Geosyntec Consultants, Inc.



William E Wertz, Ph.D., P.G.
Task Manager
Beech and Bonaparte Engineering P.C.

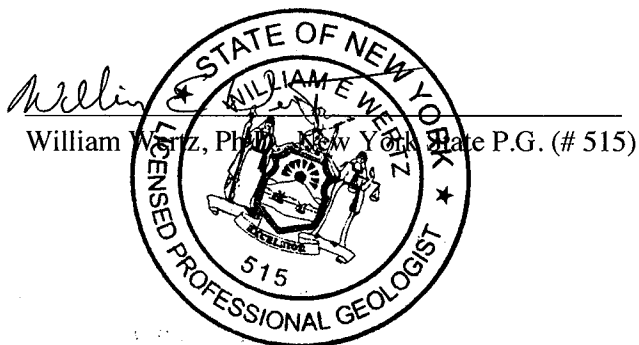
Mr. Michael J. Cruden, P.E.

19 August 2018

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Certification

I William Wertz certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Role of HVAC Operation on Mitigating Vapor Intrusion Former Sperry Remington Site – North Portion (#c808022) letter report dated 22 August 2018 was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).



REFERENCES

- Beech and Bonaparte, 2018a, Engineering P.C., Sub-Slab Depressurization Systems Evaluation Former Sperry Remington Site – North Portion (#c808022), 777 South Main Street, City of Elmira, Chemung County, NY.
- Beech and Bonaparte, 2018b, Engineering P.C., Supplemental Vapor Intrusion Assessment Work Plan Former Sperry Remington Site – North Portion (#c808022), 777 South Main Street, City of Elmira, Chemung County, NY.
- Geosyntec Consultants, Inc., 2014, Vapor Intrusion Assessment and Mitigation Report, Elmira High School, Former Sperry Remington Site – North Portion, 777 South Main Street, City of Elmira, Chemung County, NY, NYSDEC PROJECT 808022.
- NYSDEC, 2018a, Letter M. Cruden (NYSDEC) to K. Krueger (Unisys) requesting additional remedial investigation activities at the Former Sperry Remington Site No. C808022.
- NYSDEC, 2018b, Letter M. Cruden (NYSDEC) to K. Krueger (Unisys) approving the SVIA Work Plan Former Sperry Remington Site No. C808022.
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- NYSDOH, 2006, Guidance for Evaluating Vapor Intrusion in The State of New York.
- NYSDOH, 2010, Letter Health Consultation: Evaluation of Exposure Related to Soil Vapor Intrusion Mitigation Verification – December 2009, Southside High School, Elmira, Chemung County, New York.
- NYSDOH, 2017, Soil Vapor Intrusion Updates, May 2017: Updates to Soil Vapor / Indoor Air Decision Matrices,
https://www.health.ny.gov/environmental/indoors/vapor_intrusion/update.htm, accessed August 17, 2018.

Attachments:	Table 1	Measured Cross-slab Differential Pressures
	Table 2	Measured Cross-slab Differential Pressures Near SSDS
	Table 3	Indoor Air Outdoor Air and Sub-slab Sampling Results for TCE
	Table 4	Indoor Air Outdoor Air and Sub-slab Sampling Results for cis-1,2-DCE
	Table 5	Indoor Air Outdoor Air and Sub-slab Sampling Results for Carbon Tetrachloride
	Table 6	Indoor Air Outdoor Air and Sub-slab Sampling Results for PCE
	Table 7	Indoor Air Outdoor Air and Sub-slab Sampling Results for TCA
	Table 8	Indoor Air Outdoor Air and Sub-slab Sampling Results for Methylene Chloride
	Table 9	Indoor Air Outdoor Air and Sub-slab Sampling Results for Freon 12
	Table 10	Indoor Air Outdoor Air and Sub-slab Sampling Results for Chloroform
	Table 11	Indoor Air Outdoor Air and Sub-slab Sampling Results for Acetone
	Table 12	Indoor Air Outdoor Air and Sub-slab Sampling Results for Ethanol
	Table 13	Indoor Air Outdoor Air and Sub-slab Sampling Results for Toluene
	Figure 1	Cross-slab Differential Pressure Room 100
	Figure 2	Cross-slab Differential Pressure Room 151
	Figure 3	Detected Concentrations of Freon 12 Indoor vs Sub-slab
	Figure 4	Detected Concentrations of Freon 12 in Air
	Figure 5	Detected Concentrations of Chloroform in Air
	Figure 6	Detected Concentrations of Acetone Indoor vs Sub-slab
	Figure 7	Detected Concentrations of Acetone in Air
	Figure 8	Detected Concentrations of Ethanol Indoor vs Sub-slab
	Figure 9	Detected Concentrations of Ethanol in Air
	Figure 10	Detected Concentrations of Toluene Indoor vs Sub-slab
	Figure 11	Detected Concentrations of Toluene in Air

Appendix A Summary Table of Detected Concentrations

Copies to:

Bernette Schilling, NYSDEC Region 8
Timothy Schneider, NYSDEC Region 8
Ben Conlon, NYSDEC
Heidi Dudek, NYSDEC
Justin Deming, NYSDOH
Dawn Hettrick, NYSDOH

Kevin Krueger, Unisys
Michael G. Murphy, Beveridge & Diamond
Michael Dunn– ECSD
Hillary Austin – ECSD
Tom Johnson, Sterling Environmental

TABLES

Table 1
Measured Cross-slab Differential Pressures

Former Sperry Remington Site - North Portion
Elmira, New York

Differential Pressure Monitoring Points					
Location	Permanent or Temporary	HVAC Unoccupied	HVAC Unoccupied	HVAC Occupied	HVAC Occupied
	Permanent or Temporary	6/28/18 Time	Result Pa	6/29/18 Time	Result Pa
Room 127	Permanent	9:32	14.7	8:16	18.7 to 19.1
Gymnasium (SV Gym West)	Permanent	15:50	87	9:00	87.1 to 87.9
Cafeteria Addition (MAG-NW1)	Permanent	15:42	301	8:35	300
Cafeteria Retrofit (Mag-SE1)	Permanent	15:44	303	8:38	300
K Wing (K04 Stack -Un) (SV K04-Occ)	Permanent	9:24	36.4	9:42	34.4 to 35.5
Rm 100 (SV-LIB)	Permanent	see continuous pressure log			
Rm 139 (Near SV-WS)	Permanent	9:11	0 to 0.1	8:47	0.1 to 0.3
Rm 145 (Near SV-NR)	Temporary	12:06	(-0.1) to 2	9:05	0.1 to 0.9
Rm 103	Temporary	13:07	0 to 0.4	9:26	1.4 to 1.6
Rm 168	Temporary	12:45	1.8 to 1.8	8:55	0.0 to 0.6
Rm 133	Temporary	13:32	0.4 to 0.5	9:12	(-2.3) to 0.8
Rm 109	Temporary	13:38	(-0.1) to 0.1	9:22	3.8 to 4.1
Rm 120	Temporary	14:06	0.2 to 0.4	8:22	4.2 to 4.4
Rm 122	Temporary	13:52	23.3 to 24	9:17	21.4 to 22.5
Rm 151 A. (SV-151 A)	Permanent	see continuous pressure log			
Rm 148	Temporary	14:18	0.2 to 0.4	9:08	(-0.1) to (-0.2)
Rm 135	Temporary	14:47	6.0 to 6.8	8:42	2.8 to 3.2

Table 2
Measured Cross-slab Differential Pressures Near SSDS

Former Sperry Remington Site - North Portion
Elmira, New York

SSDS Differential Pressure Monitoring Results May vs June 2018					
Location	Monitoring Point Type	HVAC Unoccupied	HVAC Unoccupied	HVAC Occupied	HVAC Occupied
		5/25/18	6/28/18	5/24/18	6/29/18
		Result Pa	Result Pa	Result Pa	Result Pa
Room 127	Permanent	14.2	14.7	18.1	18.7 to 19.1
Gymnasium (SV Gym West)	Permanent	80	87	84.9	87.1 to 87.9
Cafeteria Addition (MAG-NW1)	Permanent	237	301	217	300
Cafeteria Retrofit (Mag-SE1)	Permanent	274	303	280	300
K Wing (K04 Stack -Un) (SV K04-Occ)	Permanent	13.6	36.4	17	34.4 to 35.5
Rm 120	Temporary		0.2 to 0.4		4.2 to 4.4
Rm 135	Temporary		6.0 to 6.8		2.8 to 3.2
Positive values indicate that the interior is positively pressurized with respect to the sub-slab					

Table 3
Indoor Air Outdoor Air and Sub-slab Sampling Results for TCE
June 2018
Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for TCE					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-Oa-127-UN	0.18	0.34	J
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-127-UN-DUP	0.16	0.2	J
F Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-127-OCC	0.18	0.73	
F Wing	F Wing Stack	EHS-062818-EF-FWING	5.9	340	
Room 127	HVAC Unoccupied	EHS-062818-IA-127-UN	0.17	0.23	
Room 127	HVAC Occupied	EHS-062918-IA-127-OCC	0.16		ND
Room 120	HVAC Unoccupied	EHS-062818-IA-120-UN	0.17	0.48	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC	0.16		ND
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC-DUP	0.16		ND
Room 120	Sub-slab	EHS-062818-SS-120-UN	6		ND
Room 122	HVAC Unoccupied	EHS-062818-IA-122-UN	0.18		ND
Room 122	HVAC Occupied	EHS-062918-IA-122-OCC	0.16		ND
Room 122	Sub-slab	EHS-062818-SS-122-UN	5.9		ND
Room 133	HVAC Unoccupied	EHS-062818-IA-133-UN	0.17		ND
Room 133	HVAC Occupied	EHS-062918-IA-133-OCC	0.16		ND
Room 133	Sub-slab	EHS-062818-SS-133-UN	6.3		ND
Room 100	HVAC Unoccupied	EHS-062818-IA-100-UN	0.17		ND
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC	0.16		ND
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC-DUP	0.16	0.16	J
Room 103	HVAC Unoccupied	EHS-062818-IA-103-UN	0.18		ND
Room 103	HVAC Occupied	EHS-062918-IA-103-OCC	0.17		ND
Room 103	Sub-slab	EHS-062818-SS-103-UN	6.2		ND
Room 104	HVAC Unoccupied	EHS-062818-IA-104-UN	0.17		ND
Room 104	HVAC Occupied	EHS-062918-IA-104-OCC	0.16	0.26	
Room 109	HVAC Unoccupied	EHS-062818-IA-109-UN	0.16		ND
Room 109	HVAC Occupied	EHS-062918-IA-109-OCC	0.17		ND
Room 109	Sub-slab	EHS-062818-SS-109-UN	6.3	11	
Cafeteria	HVAC Unoccupied	EHS-062818-IA-CAF-UN	0.16		ND
Cafeteria	HVAC Occupied	EHS-062918-IA-CAF-OCC	0.17		ND
Cafeteria SSDS	Retrofit Stack	EHS-062818-EF-CAFR	6		ND
Cafeteria SSDS	Expansion Stack	EHS-062818-EF-CAFA	6.5	26	

Table 3 (continued)
Indoor Air Outdoor Air and Sub-slab Sampling Results for TCE
June 2018
Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for TCE					
		CLIENTSAMPID	REPLMT (ug/m3)	Result	Q
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN	0.17		ND
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN-DUP	0.16		ND
Room 135 Cafeteria	HVAC Occupied	EHS-062918-IA-135-OCC	0.17		ND
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN	5.6		ND
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN-DUP	12		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-1	6.4		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-2	6.5		ND
Room 138 A	HVAC Unoccupied	EHS-062818-IA-138A-UN	0.16		ND
Room 138 A	HVAC Occupied	EHS-062918-IA-138A-OCC	0.17		ND
Room 139	HVAC Unoccupied	EHS-062818-IA-139-UN	0.17		ND
Room 139	HVAC Occupied	EHS-062918-IA-139-OCC	0.16		ND
Room 145	HVAC Unoccupied	EHS-062818-IA-145-UN	0.17		ND
Room 145	HVAC Occupied	EHS-062918-IA-145-OCC	0.16		ND
K Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-K-UN	0.16		ND
K Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-K-OCC	0.28		ND
K Wing Hallway	HVAC Unoccupied	EHS-062818-IA-K-UN	0.16		ND
K Wing Hallway	HVAC Occupied	EHS-062918-IA-K-OCC	0.17		ND
K Wing SSDS	K Wing Stack	EHS-062818-EF-KWING	6.2	31	
Gym	HVAC Unoccupied	EHS-062818-IA-GYM-UN	0.16		ND
Gym	HVAC Occupied	EHS-062918-IA-GYM-OCC	0.17		ND
Gym SSDS	Gym Stack	EHS-062818-EF-GYM	5.9	19	
Room 168	HVAC Unoccupied	EHS-062818-IA-164-UN	0.18		ND
Room 168	HVAC Occupied	EHS-062918-IA-164-OCC	0.3		ND
Room 168	Sub-slab	EHS-062818-SS-164-UN	5.9		ND
Room 149	HVAC Unoccupied	EHS-062818-IA-151A-UN	0.16	0.77	
Room 149	HVAC Occupied	EHS-062918-IA-151A-OCC	0.18		ND
Room 151	Sub-slab	EHS-062818-SS-151-UN	6		ND
Room 151	HVS	EHS-062918-HVS-151-1	6.5		ND
Room 151	HVS	EHS-062918-HVS-151-2	6.4		ND
Room 148	HVAC Unoccupied	EHS-062818-IA-148-UN	0.17		ND
Room 148	HVAC Occupied	EHS-062918-IA-148-OCC	0.16	0.37	
Room 148	Sub-slab	EHS-062818-SS-148-UN	5.9	160	
Room 148	HVS	EHS-062918-HVS-148-1	6.3	380	
Room 148	HVS	EHS-062918-HVS-148-2	6.5	380	

Table 4
Indoor Air Outdoor Air and Sub-slab Sampling Results for cis-1,2-DCE
June 2018
Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for cis-1,2DCE					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-Oa-127-UN	0.14		ND
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-127-UN-DUP	0.12		ND
F Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-127-OCC	0.13	0.36	
F Wing	F Wing Stack	EHS-062818-EF-FWING	4.4	67	
Room 127	HVAC Unoccupied	EHS-062818-IA-127-UN	0.12		ND
Room 127	HVAC Occupied	EHS-062918-IA-127-OCC	0.12		ND
Room 120	HVAC Unoccupied	EHS-062818-IA-120-UN	0.12		ND
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC	0.12		ND
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC-DUP	0.12		ND
Room 120	Sub-slab	EHS-062818-SS-120-UN	4.4		ND
Room 122	HVAC Unoccupied	EHS-062818-IA-122-UN	0.13		ND
Room 122	HVAC Occupied	EHS-062918-IA-122-OCC	0.12		ND
Room 122	Sub-slab	EHS-062818-SS-122-UN	4.4		ND
Room 133	HVAC Unoccupied	EHS-062818-IA-133-UN	0.12		ND
Room 133	HVAC Occupied	EHS-062918-IA-133-OCC	0.12		ND
Room 133	Sub-slab	EHS-062818-SS-133-UN	4.6		ND
Room 100	HVAC Unoccupied	EHS-062818-IA-100-UN	0.12		ND
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC	0.12		ND
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC-DUP	0.12	0.15	J
Room 103	HVAC Unoccupied	EHS-062818-IA-103-UN	0.13		ND
Room 103	HVAC Occupied	EHS-062918-IA-103-OCC	0.12		ND
Room 103	Sub-slab	EHS-062818-SS-103-UN	4.5		ND
Room 104	HVAC Unoccupied	EHS-062818-IA-104-UN	0.12		ND
Room 104	HVAC Occupied	EHS-062918-IA-104-OCC	0.12		ND
Room 109	HVAC Unoccupied	EHS-062818-IA-109-UN	0.12		ND
Room 109	HVAC Occupied	EHS-062918-IA-109-OCC	0.12		ND
Room 109	Sub-slab	EHS-062818-SS-109-UN	4.6		ND
Cafeteria	HVAC Unoccupied	EHS-062818-IA-CAF-UN	0.12		ND
Cafeteria	HVAC Occupied	EHS-062918-IA-CAF-OCC	0.12		ND
Cafeteria SSDS	Retrofit Stack	EHS-062818-EF-CAFR	4.4		ND
Cafeteria SSDS	Expansion Stack	EHS-062818-EF-CAFA	4.8		ND

Table 4 (continued)
Indoor Air Outdoor Air and Sub-slab Sampling Results for cis-1,2-DCE
June 2018
Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for cis-1,2DCE					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN	0.12		ND
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN-DUP	0.12		ND
Room 135 Cafeteria	HVAC Occupied	EHS-062918-IA-135-OCC	0.12		ND
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN	4.1		ND
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN-DUP	8.9		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-1	4.7		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-2	4.8		ND
Room 138 A	HVAC Unoccupied	EHS-062818-IA-138A-UN	0.12		ND
Room 138 A	HVAC Occupied	EHS-062918-IA-138A-OCC	0.12		ND
Room 139	HVAC Unoccupied	EHS-062818-IA-139-UN	0.13		ND
Room 139	HVAC Occupied	EHS-062918-IA-139-OCC	0.12		ND
Room 145	HVAC Unoccupied	EHS-062818-IA-145-UN	0.12		ND
Room 145	HVAC Occupied	EHS-062918-IA-145-OCC	0.12		ND
K Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-K-UN	0.12		ND
K Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-K-OCC	0.21		ND
K Wing Hallway	HVAC Unoccupied	EHS-062818-IA-K-UN	0.12		ND
K Wing Hallway	HVAC Occupied	EHS-062918-IA-K-OCC	0.12		ND
K Wing SSDS	K Wing Stack	EHS-062818-EF-KWING	4.5		ND
Gym	HVAC Unoccupied	EHS-062818-IA-GYM-UN	0.12		ND
Gym	HVAC Occupied	EHS-062918-IA-GYM-OCC	0.12		ND
Gym SSDS	Gym Stack	EHS-062818-EF-GYM	4.4		ND
Room 168	HVAC Unoccupied	EHS-062818-IA-164-UN	0.13		ND
Room 168	HVAC Occupied	EHS-062918-IA-164-OCC	0.22		ND
Room 168	Sub-slab	EHS-062818-SS-164-UN	4.4		ND
Room 149	HVAC Unoccupied	EHS-062818-IA-151A-UN	0.12	1.6	
Room 149	HVAC Occupied	EHS-062918-IA-151A-OCC	0.13		ND
Room 151	Sub-slab	EHS-062818-SS-151-UN	4.4		ND
Room 151	HVS	EHS-062918-HVS-151-1	4.8		ND
Room 151	HVS	EHS-062918-HVS-151-2	4.7		ND
Room 148	HVAC Unoccupied	EHS-062818-IA-148-UN	0.13		ND
Room 148	HVAC Occupied	EHS-062918-IA-148-OCC	0.12		ND
Room 148	Sub-slab	EHS-062818-SS-148-UN	4.4		ND
Room 148	HVS	EHS-062918-HVS-148-1	4.6		ND
Room 148	HVS	EHS-062918-HVS-148-2	4.8		ND

Table 5
Indoor Air Outdoor Air and Sub-slab Sampling Results for Carbon Tetrachloride
June 2018

Former Sperry Remington Site - North Portion
 Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Carbon Tetrachloride					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-Oa-127-UN	0.22	0.49	
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-127-UN-DUP	0.19	0.51	
F Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-127-OCC	0.21	0.48	
F Wing	F Wing Stack	EHS-062818-EF-FWING	6.9		ND
Room 127	HVAC Unoccupied	EHS-062818-IA-127-UN	0.2	0.38	
Room 127	HVAC Occupied	EHS-062918-IA-127-OCC	0.19	0.48	
Room 120	HVAC Unoccupied	EHS-062818-IA-120-UN	0.2	0.34	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC	0.19	0.49	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC-DUP	0.19	0.5	
Room 120	Sub-slab	EHS-062818-SS-120-UN	7		ND
Room 122	HVAC Unoccupied	EHS-062818-IA-122-UN	0.21	0.35	
Room 122	HVAC Occupied	EHS-062918-IA-122-OCC	0.19	0.5	
Room 122	Sub-slab	EHS-062818-SS-122-UN	6.9		ND
Room 133	HVAC Unoccupied	EHS-062818-IA-133-UN	0.2	0.47	
Room 133	HVAC Occupied	EHS-062918-IA-133-OCC	0.19	0.39	
Room 133	Sub-slab	EHS-062818-SS-133-UN	7.3		ND
Room 100	HVAC Unoccupied	EHS-062818-IA-100-UN	0.2	0.43	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC	0.18	0.5	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC-DUP	0.19	0.5	
Room 103	HVAC Unoccupied	EHS-062818-IA-103-UN	0.21	0.42	
Room 103	HVAC Occupied	EHS-062918-IA-103-OCC	0.2	0.48	
Room 103	Sub-slab	EHS-062818-SS-103-UN	7.2		ND
Room 104	HVAC Unoccupied	EHS-062818-IA-104-UN	0.2	0.45	
Room 104	HVAC Occupied	EHS-062918-IA-104-OCC	0.19	0.49	
Room 109	HVAC Unoccupied	EHS-062818-IA-109-UN	0.19	0.4	
Room 109	HVAC Occupied	EHS-062918-IA-109-OCC	0.2	0.46	
Room 109	Sub-slab	EHS-062818-SS-109-UN	7.3		ND
Cafeteria	HVAC Unoccupied	EHS-062818-IA-CAF-UN	0.19	0.39	
Cafeteria	HVAC Occupied	EHS-062918-IA-CAF-OCC	0.2	0.48	
Cafeteria SSDS	Retrofit Stack	EHS-062818-EF-CAFR	7		ND
Cafeteria SSDS	Expansion Stack	EHS-062818-EF-CAFA	7.6		ND

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Table 5 (continued)
Indoor Air Outdoor Air and Sub-slab Sampling Results for Carbon Tetrachloride
June 2018

Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Carbon Tetrachloride					
		CLIENTSAMPID	REPLMT (ug/m3)	Result	Q
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN	0.2	0.48	
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN-DUP	0.19	0.46	
Room 135 Cafeteria	HVAC Occupied	EHS-062918-IA-135-OCC	0.2	0.4	
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN	6.6		ND
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN-DUP	14		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-1	7.5		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-2	7.6		ND
Room 138 A	HVAC Unoccupied	EHS-062818-IA-138A-UN	0.19	0.49	
Room 138 A	HVAC Occupied	EHS-062918-IA-138A-OCC	0.2	0.36	
Room 139	HVAC Unoccupied	EHS-062818-IA-139-UN	0.2	0.43	
Room 139	HVAC Occupied	EHS-062918-IA-139-OCC	0.19	0.38	
Room 145	HVAC Unoccupied	EHS-062818-IA-145-UN	0.2	0.5	
Room 145	HVAC Occupied	EHS-062918-IA-145-OCC	0.19	0.44	
K Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-K-UN	0.19	0.52	
K Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-K-OCC	0.33	0.47	J
K Wing Hallway	HVAC Unoccupied	EHS-062818-IA-K-UN	0.19	0.42	
K Wing Hallway	HVAC Occupied	EHS-062918-IA-K-OCC	0.2	0.42	
K Wing SSDS	K Wing Stack	EHS-062818-EF-KWING	7.2		ND
Gym	HVAC Unoccupied	EHS-062818-IA-GYM-UN	0.19	0.57	
Gym	HVAC Occupied	EHS-062918-IA-GYM-OCC	0.2	0.44	
Gym SSDS	Gym Stack	EHS-062818-EF-GYM	6.9		ND
Room 168	HVAC Unoccupied	EHS-062818-IA-164-UN	0.21	0.49	
Room 168	HVAC Occupied	EHS-062918-IA-164-OCC	0.35		ND
Room 168	Sub-slab	EHS-062818-SS-164-UN	6.9		ND
Room 149	HVAC Unoccupied	EHS-062818-IA-151A-UN	0.19	0.45	
Room 149	HVAC Occupied	EHS-062918-IA-151A-OCC	0.21	0.37	
Room 151	Sub-slab	EHS-062818-SS-151-UN	7		ND
Room 151	HVS	EHS-062918-HVS-151-1	7.6		ND
Room 151	HVS	EHS-062918-HVS-151-2	7.5		ND
Room 148	HVAC Unoccupied	EHS-062818-IA-148-UN	0.2	0.38	
Room 148	HVAC Occupied	EHS-062918-IA-148-OCC	0.19	0.62	
Room 148	Sub-slab	EHS-062818-SS-148-UN	6.9		ND
Room 148	HVS	EHS-062918-HVS-148-1	7.3		ND
Room 148	HVS	EHS-062918-HVS-148-2	7.6		ND

Table 6
Indoor Air Outdoor Air and Sub-slab Sampling Results for PCE
June 2018
Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for PCE					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-Oa-127-UN	0.23	0.54	
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-127-UN-DUP	0.21	0.5	
F Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-127-OCC	0.22		ND
F Wing	F Wing Stack	EHS-062818-EF-FWING	7.5		ND
Room 127	HVAC Unoccupied	EHS-062818-IA-127-UN	0.21		ND
Room 127	HVAC Occupied	EHS-062918-IA-127-OCC	0.2		ND
Room 120	HVAC Unoccupied	EHS-062818-IA-120-UN	0.21		ND
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC	0.21		ND
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC-DUP	0.21		ND
Room 120	Sub-slab	EHS-062818-SS-120-UN	7.6		ND
Room 122	HVAC Unoccupied	EHS-062818-IA-122-UN	0.22		ND
Room 122	HVAC Occupied	EHS-062918-IA-122-OCC	0.21		ND
Room 122	Sub-slab	EHS-062818-SS-122-UN	7.5		ND
Room 133	HVAC Unoccupied	EHS-062818-IA-133-UN	0.21	0.21	
Room 133	HVAC Occupied	EHS-062918-IA-133-OCC	0.2		ND
Room 133	Sub-slab	EHS-062818-SS-133-UN	7.9		ND
Room 100	HVAC Unoccupied	EHS-062818-IA-100-UN	0.21		ND
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC	0.2		ND
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC-DUP	0.2		ND
Room 103	HVAC Unoccupied	EHS-062818-IA-103-UN	0.23		ND
Room 103	HVAC Occupied	EHS-062918-IA-103-OCC	0.21	0.26	
Room 103	Sub-slab	EHS-062818-SS-103-UN	7.8		ND
Room 104	HVAC Unoccupied	EHS-062818-IA-104-UN	0.21	0.65	
Room 104	HVAC Occupied	EHS-062918-IA-104-OCC	0.2		ND
Room 109	HVAC Unoccupied	EHS-062818-IA-109-UN	0.21		ND
Room 109	HVAC Occupied	EHS-062918-IA-109-OCC	0.21		ND
Room 109	Sub-slab	EHS-062818-SS-109-UN	7.9		ND
Cafeteria	HVAC Unoccupied	EHS-062818-IA-CAF-UN	0.21	0.58	
Cafeteria	HVAC Occupied	EHS-062918-IA-CAF-OCC	0.21		ND
Cafeteria SSDS	Retrofit Stack	EHS-062818-EF-CAFR	7.6		ND
Cafeteria SSDS	Expansion Stack	EHS-062818-EF-CAFA	8.2		ND

Table 6 (continued)
Indoor Air Outdoor Air and Sub-slab Sampling Results for PCE
June 2018
Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for PCE					
		CLIENTSAMPID	REPLMT (ug/m3)	Result	Q
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN	0.21	0.32	
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN-DUP	0.21	0.25	
Room 135 Cafeteria	HVAC Occupied	EHS-062918-IA-135-OCC	0.21		ND
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN	7.1		ND
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN-DUP	15		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-1	8.1		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-2	8.2		ND
Room 138 A	HVAC Unoccupied	EHS-062818-IA-138A-UN	0.21		ND
Room 138 A	HVAC Occupied	EHS-062918-IA-138A-OCC	0.21		ND
Room 139	HVAC Unoccupied	EHS-062818-IA-139-UN	0.22	0.29	
Room 139	HVAC Occupied	EHS-062918-IA-139-OCC	0.21		ND
Room 145	HVAC Unoccupied	EHS-062818-IA-145-UN	0.21	0.22	
Room 145	HVAC Occupied	EHS-062918-IA-145-OCC	0.2		ND
K Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-K-UN	0.21	0.29	
K Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-K-OCC	0.36	0.4	J
K Wing Hallway	HVAC Unoccupied	EHS-062818-IA-K-UN	0.21	0.26	
K Wing Hallway	HVAC Occupied	EHS-062918-IA-K-OCC	0.21		ND
K Wing SSDS	K Wing Stack	EHS-062818-EF-KWING	7.8		ND
Gym	HVAC Unoccupied	EHS-062818-IA-GYM-UN	0.2	0.33	
Gym	HVAC Occupied	EHS-062918-IA-GYM-OCC	0.21		ND
Gym SSDS	Gym Stack	EHS-062818-EF-GYM	7.5		ND
Room 168	HVAC Unoccupied	EHS-062818-IA-164-UN	0.22		ND
Room 168	HVAC Occupied	EHS-062918-IA-164-OCC	0.38		ND
Room 168	Sub-slab	EHS-062818-SS-164-UN	7.5	11	
Room 149	HVAC Unoccupied	EHS-062818-IA-151A-UN	0.2	1.9	
Room 149	HVAC Occupied	EHS-062918-IA-151A-OCC	0.23		ND
Room 151	Sub-slab	EHS-062818-SS-151-UN	7.6	14	
Room 151	HVS	EHS-062918-HVS-151-1	8.2		ND
Room 151	HVS	EHS-062918-HVS-151-2	8.1		ND
Room 148	HVAC Unoccupied	EHS-062818-IA-148-UN	0.22		ND
Room 148	HVAC Occupied	EHS-062918-IA-148-OCC	0.2		ND
Room 148	Sub-slab	EHS-062818-SS-148-UN	7.5		ND
Room 148	HVS	EHS-062918-HVS-148-1	7.9		ND
Room 148	HVS	EHS-062918-HVS-148-2	8.2		ND

Table 7
Indoor Air Outdoor Air and Sub-slab Sampling Results for TCA
June 2018

Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for TCA					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-Oa-127-UN	0.19		ND
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-127-UN-DUP	0.17		ND
F Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-127-OCC	0.18		ND
F Wing	F Wing Stack	EHS-062818-EF-FWING	6		ND
Room 127	HVAC Unoccupied	EHS-062818-IA-127-UN	0.17		ND
Room 127	HVAC Occupied	EHS-062918-IA-127-OCC	0.16		ND
Room 120	HVAC Unoccupied	EHS-062818-IA-120-UN	0.17		ND
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC	0.17		ND
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC-DUP	0.16		ND
Room 120	Sub-slab	EHS-062818-SS-120-UN	6.1		ND
Room 122	HVAC Unoccupied	EHS-062818-IA-122-UN	0.18		ND
Room 122	HVAC Occupied	EHS-062918-IA-122-OCC	0.17		ND
Room 122	Sub-slab	EHS-062818-SS-122-UN	6		ND
Room 133	HVAC Unoccupied	EHS-062818-IA-133-UN	0.17		ND
Room 133	HVAC Occupied	EHS-062918-IA-133-OCC	0.16		ND
Room 133	Sub-slab	EHS-062818-SS-133-UN	6.4		ND
Room 100	HVAC Unoccupied	EHS-062818-IA-100-UN	0.17		ND
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC	0.16		ND
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC-DUP	0.16		ND
Room 103	HVAC Unoccupied	EHS-062818-IA-103-UN	0.18		ND
Room 103	HVAC Occupied	EHS-062918-IA-103-OCC	0.17		ND
Room 103	Sub-slab	EHS-062818-SS-103-UN	6.2		ND
Room 104	HVAC Unoccupied	EHS-062818-IA-104-UN	0.17		ND
Room 104	HVAC Occupied	EHS-062918-IA-104-OCC	0.16		ND
Room 109	HVAC Unoccupied	EHS-062818-IA-109-UN	0.17		ND
Room 109	HVAC Occupied	EHS-062918-IA-109-OCC	0.17		ND
Room 109	Sub-slab	EHS-062818-SS-109-UN	6.4		ND
Cafeteria	HVAC Unoccupied	EHS-062818-IA-CAF-UN	0.17		ND
Cafeteria	HVAC Occupied	EHS-062918-IA-CAF-OCC	0.17		ND
Cafeteria SSDS	Retrofit Stack	EHS-062818-EF-CAFR	6.1		ND
Cafeteria SSDS	Expansion Stack	EHS-062818-EF-CAFA	6.6		ND

Table 7 (continued)
Indoor Air Outdoor Air and Sub-slab Sampling Results for TCA
June 2018
Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for TCA					
		CLIENTSAMPID	REPLMT (ug/m3)	Result	Q
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN	0.17		ND
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN-DUP	0.16		ND
Room 135 Cafeteria	HVAC Occupied	EHS-062918-IA-135-OCC	0.17		ND
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN	5.7		ND
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN-DUP	12		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-1	6.5		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-2	6.6		ND
Room 138 A	HVAC Unoccupied	EHS-062818-IA-138A-UN	0.17		ND
Room 138 A	HVAC Occupied	EHS-062918-IA-138A-OCC	0.17		ND
Room 139	HVAC Unoccupied	EHS-062818-IA-139-UN	0.18	0.59	
Room 139	HVAC Occupied	EHS-062918-IA-139-OCC	0.17	0.27	
Room 145	HVAC Unoccupied	EHS-062818-IA-145-UN	0.17		ND
Room 145	HVAC Occupied	EHS-062918-IA-145-OCC	0.16		ND
K Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-K-UN	0.16		ND
K Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-K-OCC	0.29		ND
K Wing Hallway	HVAC Unoccupied	EHS-062818-IA-K-UN	0.16		ND
K Wing Hallway	HVAC Occupied	EHS-062918-IA-K-OCC	0.17		ND
K Wing SSDS	K Wing Stack	EHS-062818-EF-KWING	6.2		ND
Gym	HVAC Unoccupied	EHS-062818-IA-GYM-UN	0.16		ND
Gym	HVAC Occupied	EHS-062918-IA-GYM-OCC	0.17		ND
Gym SSDS	Gym Stack	EHS-062818-EF-GYM	6		ND
Room 168	HVAC Unoccupied	EHS-062818-IA-164-UN	0.18		ND
Room 168	HVAC Occupied	EHS-062918-IA-164-OCC	0.31		ND
Room 168	Sub-slab	EHS-062818-SS-164-UN	6		ND
Room 149	HVAC Unoccupied	EHS-062818-IA-151A-UN	0.16		ND
Room 149	HVAC Occupied	EHS-062918-IA-151A-OCC	0.18		ND
Room 151	Sub-slab	EHS-062818-SS-151-UN	6.1		ND
Room 151	HVS	EHS-062918-HVS-151-1	6.6		ND
Room 151	HVS	EHS-062918-HVS-151-2	6.5		ND
Room 148	HVAC Unoccupied	EHS-062818-IA-148-UN	0.18		ND
Room 148	HVAC Occupied	EHS-062918-IA-148-OCC	0.16		ND
Room 148	Sub-slab	EHS-062818-SS-148-UN	6		ND
Room 148	HVS	EHS-062918-HVS-148-1	6.4		ND
Room 148	HVS	EHS-062918-HVS-148-2	6.6		ND

Table 8
Indoor Air Outdoor Air and Sub-slab Sampling Results for Methylene Chloride
June 2018

Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Methylene Chloride					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-Oa-127-UN	1.2		ND
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-127-UN-DUP	1.1		ND
F Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-127-OCC	1.2		ND
F Wing	F Wing Stack	EHS-062818-EF-FWING	38		ND
Room 127	HVAC Unoccupied	EHS-062818-IA-127-UN	1.1		ND
Room 127	HVAC Occupied	EHS-062918-IA-127-OCC	1		ND
Room 120	HVAC Unoccupied	EHS-062818-IA-120-UN	1.1		ND
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC	1.1		ND
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC-DUP	1		ND
Room 120	Sub-slab	EHS-062818-SS-120-UN	39		ND
Room 122	HVAC Unoccupied	EHS-062818-IA-122-UN	1.1		ND
Room 122	HVAC Occupied	EHS-062918-IA-122-OCC	1.1		ND
Room 122	Sub-slab	EHS-062818-SS-122-UN	38		ND
Room 133	HVAC Unoccupied	EHS-062818-IA-133-UN	1.1	1.1	
Room 133	HVAC Occupied	EHS-062918-IA-133-OCC	1		ND
Room 133	Sub-slab	EHS-062818-SS-133-UN	40		ND
Room 100	HVAC Unoccupied	EHS-062818-IA-100-UN	1.1		ND
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC	1		ND
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC-DUP	1		ND
Room 103	HVAC Unoccupied	EHS-062818-IA-103-UN	1.2		ND
Room 103	HVAC Occupied	EHS-062918-IA-103-OCC	1.1		ND
Room 103	Sub-slab	EHS-062818-SS-103-UN	40		ND
Room 104	HVAC Unoccupied	EHS-062818-IA-104-UN	1.1		ND
Room 104	HVAC Occupied	EHS-062918-IA-104-OCC	1		ND
Room 109	HVAC Unoccupied	EHS-062818-IA-109-UN	1.1		ND
Room 109	HVAC Occupied	EHS-062918-IA-109-OCC	1.1		ND
Room 109	Sub-slab	EHS-062818-SS-109-UN	40		ND
Cafeteria	HVAC Unoccupied	EHS-062818-IA-CAF-UN	1.1	1.6	
Cafeteria	HVAC Occupied	EHS-062918-IA-CAF-OCC	1.1		ND
Cafeteria SSDS	Retrofit Stack	EHS-062818-EF-CAFR	39		ND
Cafeteria SSDS	Expansion Stack	EHS-062818-EF-CAFA	42		ND

Table 8 (continued)
Indoor Air Outdoor Air and Sub-slab Sampling Results for Methylene Chloride
June 2018

Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Methylene Chloride					
		CLIENTSAMPID	REPLMT (ug/m3)	Result	Q
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN	1.1		ND
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN-DUP	1		ND
Room 135 Cafeteria	HVAC Occupied	EHS-062918-IA-135-OCC	1.1		ND
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN	36		ND
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN-DUP	78		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-1	41		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-2	42		ND
Room 138 A	HVAC Unoccupied	EHS-062818-IA-138A-UN	1.1		ND
Room 138 A	HVAC Occupied	EHS-062918-IA-138A-OCC	1.1		ND
Room 139	HVAC Unoccupied	EHS-062818-IA-139-UN	1.1	1.2	
Room 139	HVAC Occupied	EHS-062918-IA-139-OCC	1.1		ND
Room 145	HVAC Unoccupied	EHS-062818-IA-145-UN	1.1		ND
Room 145	HVAC Occupied	EHS-062918-IA-145-OCC	1		ND
K Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-K-UN	1		ND
K Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-K-OCC	1.8	4.2	J
K Wing Hallway	HVAC Unoccupied	EHS-062818-IA-K-UN	1		ND
K Wing Hallway	HVAC Occupied	EHS-062918-IA-K-OCC	1.1		ND
K Wing SSDS	K Wing Stack	EHS-062818-EF-KWING	40		ND
Gym	HVAC Unoccupied	EHS-062818-IA-GYM-UN	1		ND
Gym	HVAC Occupied	EHS-062918-IA-GYM-OCC	1.1		ND
Gym SSDS	Gym Stack	EHS-062818-EF-GYM	38		ND
Room 168	HVAC Unoccupied	EHS-062818-IA-164-UN	1.1		ND
Room 168	HVAC Occupied	EHS-062918-IA-164-OCC	2	2.4	
Room 168	Sub-slab	EHS-062818-SS-164-UN	38		ND
Room 149	HVAC Unoccupied	EHS-062818-IA-151A-UN	1	1.2	
Room 149	HVAC Occupied	EHS-062918-IA-151A-OCC	1.2		ND
Room 151	Sub-slab	EHS-062818-SS-151-UN	39		ND
Room 151	HVS	EHS-062918-HVS-151-1	42		ND
Room 151	HVS	EHS-062918-HVS-151-2	41		ND
Room 148	HVAC Unoccupied	EHS-062818-IA-148-UN	1.1		ND
Room 148	HVAC Occupied	EHS-062918-IA-148-OCC	1	8.6	
Room 148	Sub-slab	EHS-062818-SS-148-UN	38		ND
Room 148	HVS	EHS-062918-HVS-148-1	40		ND
Room 148	HVS	EHS-062918-HVS-148-2	42		ND

Table 9
Indoor Air Outdoor Air and Sub-slab Sampling Results for Freon 12
June 2018
Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Freon 12					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-Oa-127-UN	0.17	2.4	
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-127-UN-DUP	0.15	2.4	
F Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-127-OCC	0.16	2.5	
F Wing	F Wing Stack	EHS-062818-EF-FWING	5.4	140	
Room 127	HVAC Unoccupied	EHS-062818-IA-127-UN	0.15	22	
Room 127	HVAC Occupied	EHS-062918-IA-127-OCC	0.15	6.8	
Room 120	HVAC Unoccupied	EHS-062818-IA-120-UN	0.16	39	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC	0.15	4.3	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC-DUP	0.15	4.3	
Room 120	Sub-slab	EHS-062818-SS-120-UN	5.5	1100	
Room 122	HVAC Unoccupied	EHS-062818-IA-122-UN	0.16	30	
Room 122	HVAC Occupied	EHS-062918-IA-122-OCC	0.15	12	
Room 122	Sub-slab	EHS-062818-SS-122-UN	5.4	630	
Room 133	HVAC Unoccupied	EHS-062818-IA-133-UN	0.16	22	
Room 133	HVAC Occupied	EHS-062918-IA-133-OCC	0.15	5.5	
Room 133	Sub-slab	EHS-062818-SS-133-UN	5.8	770	
Room 100	HVAC Unoccupied	EHS-062818-IA-100-UN	0.16	24	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC	0.14	3.7	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC-DUP	0.15	3.6	
Room 103	HVAC Unoccupied	EHS-062818-IA-103-UN	0.17	32	
Room 103	HVAC Occupied	EHS-062918-IA-103-OCC	0.16	4.1	
Room 103	Sub-slab	EHS-062818-SS-103-UN	5.7	12	
Room 104	HVAC Unoccupied	EHS-062818-IA-104-UN	0.15	51	
Room 104	HVAC Occupied	EHS-062918-IA-104-OCC	0.15	22	
Room 109	HVAC Unoccupied	EHS-062818-IA-109-UN	0.15	25	
Room 109	HVAC Occupied	EHS-062918-IA-109-OCC	0.16	7.3	
Room 109	Sub-slab	EHS-062818-SS-109-UN	5.8	240	
Cafeteria	HVAC Unoccupied	EHS-062818-IA-CAF-UN	0.15	7.9	
Cafeteria	HVAC Occupied	EHS-062918-IA-CAF-OCC	0.15	2.7	
Cafeteria SSDS	Retrofit Stack	EHS-062818-EF-CAFR	5.5	31	
Cafeteria SSDS	Expansion Stack	EHS-062818-EF-CAFA	6	45	

Table 9 (Continued)
Indoor Air Outdoor Air and Sub-slab Sampling Results for Freon 12
June 2018

Former Sperry Remington Site - North Portion
 Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Freon 12					
		CLIENTSAMPID	REPLMT (ug/m3)	Result	Q
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN	0.16	14	
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN-DUP	0.15	14	
Room 135 Cafeteria	HVAC Occupied	EHS-062918-IA-135-OCC	0.16	3.2	
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN	5.2	13	
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN-DUP	11	11	
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-1	5.9	8	
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-2	6	7.7	
Room 138 A	HVAC Unoccupied	EHS-062818-IA-138A-UN	0.15	26	
Room 138 A	HVAC Occupied	EHS-062918-IA-138A-OCC	0.15	2.9	
Room 139	HVAC Unoccupied	EHS-062818-IA-139-UN	0.16	41	
Room 139	HVAC Occupied	EHS-062918-IA-139-OCC	0.15	4.4	
Room 145	HVAC Unoccupied	EHS-062818-IA-145-UN	0.15	7.2	
Room 145	HVAC Occupied	EHS-062918-IA-145-OCC	0.15	3.7	
K Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-K-UN	0.15	2.5	
K Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-K-OCC	0.26	2.9	J
K Wing Hallway	HVAC Unoccupied	EHS-062818-IA-K-UN	0.15	7.6	
K Wing Hallway	HVAC Occupied	EHS-062918-IA-K-OCC	0.15	3.1	
K Wing SSDS	K Wing Stack	EHS-062818-EF-KWING	5.7	56	
Gym	HVAC Unoccupied	EHS-062818-IA-GYM-UN	0.15	6.9	
Gym	HVAC Occupied	EHS-062918-IA-GYM-OCC	0.15	3.6	
Gym SSDS	Gym Stack	EHS-062818-EF-GYM	5.4	150	
Room 168	HVAC Unoccupied	EHS-062818-IA-164-UN	0.16	40	
Room 168	HVAC Occupied	EHS-062918-IA-164-OCC	0.28	3	
Room 168	Sub-slab	EHS-062818-SS-164-UN	5.4	17	
Room 149	HVAC Unoccupied	EHS-062818-IA-151A-UN	0.15	14	
Room 149	HVAC Occupied	EHS-062918-IA-151A-OCC	0.17	3.1	
Room 151	Sub-slab	EHS-062818-SS-151-UN	5.5	8.9	
Room 151	HVS	EHS-062918-HVS-151-1	6	12	
Room 151	HVS	EHS-062918-HVS-151-2	5.9	12	
Room 148	HVAC Unoccupied	EHS-062818-IA-148-UN	0.16	32	
Room 148	HVAC Occupied	EHS-062918-IA-148-OCC	0.15	4.2	
Room 148	Sub-slab	EHS-062818-SS-148-UN	5.4	810	
Room 148	HVS	EHS-062918-HVS-148-1	5.8	1800	
Room 148	HVS	EHS-062918-HVS-148-2	6	2800	J

Table 10
Indoor Air Outdoor Air and Sub-slab Sampling Results for Chloroform
June 2018

Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Chloroform					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-Oa-127-UN	0.17		ND
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-127-UN-DUP	0.15		ND
F Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-127-OCC	0.16		ND
F Wing	F Wing Stack	EHS-062818-EF-FWING	5.4		ND
Room 127	HVAC Unoccupied	EHS-062818-IA-127-UN	0.15	2.4	
Room 127	HVAC Occupied	EHS-062918-IA-127-OCC	0.14	0.42	
Room 120	HVAC Unoccupied	EHS-062818-IA-120-UN	0.15	1.2	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC	0.15	0.17	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC-DUP	0.15	0.17	
Room 120	Sub-slab	EHS-062818-SS-120-UN	5.5		ND
Room 122	HVAC Unoccupied	EHS-062818-IA-122-UN	0.16	3.4	
Room 122	HVAC Occupied	EHS-062918-IA-122-OCC	0.15	0.31	
Room 122	Sub-slab	EHS-062818-SS-122-UN	5.4		ND
Room 133	HVAC Unoccupied	EHS-062818-IA-133-UN	0.15	11	
Room 133	HVAC Occupied	EHS-062918-IA-133-OCC	0.14	0.63	
Room 133	Sub-slab	EHS-062818-SS-133-UN	5.7		ND
Room 100	HVAC Unoccupied	EHS-062818-IA-100-UN	0.15	4.4	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC	0.14	0.42	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC-DUP	0.14	0.4	
Room 103	HVAC Unoccupied	EHS-062818-IA-103-UN	0.16	1.7	
Room 103	HVAC Occupied	EHS-062918-IA-103-OCC	0.15	0.18	
Room 103	Sub-slab	EHS-062818-SS-103-UN	5.6		ND
Room 104	HVAC Unoccupied	EHS-062818-IA-104-UN	0.15	0.38	
Room 104	HVAC Occupied	EHS-062918-IA-104-OCC	0.15	0.19	
Room 109	HVAC Unoccupied	EHS-062818-IA-109-UN	0.15	0.64	
Room 109	HVAC Occupied	EHS-062918-IA-109-OCC	0.15	0.17	
Room 109	Sub-slab	EHS-062818-SS-109-UN	5.7		ND
Cafeteria	HVAC Unoccupied	EHS-062818-IA-CAF-UN	0.15	7.1	
Cafeteria	HVAC Occupied	EHS-062918-IA-CAF-OCC	0.15	0.45	
Cafeteria SSDS	Retrofit Stack	EHS-062818-EF-CAFR	5.5	10	
Cafeteria SSDS	Expansion Stack	EHS-062818-EF-CAFA	5.9		ND

Table 10 (continued)
Indoor Air Outdoor Air and Sub-slab Sampling Results for Chloroform
June 2018

Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Chloroform					
		CLIENTSAMPID	REPLMT (ug/m3)	Result	Q
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN	0.15	16	
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN-DUP	0.15	16	
Room 135 Cafeteria	HVAC Occupied	EHS-062918-IA-135-OCC	0.15	0.85	
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN	5.1	15	
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN-DUP	11		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-1	5.8		ND
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-2	5.9		ND
Room 138 A	HVAC Unoccupied	EHS-062818-IA-138A-UN	0.15	15	
Room 138 A	HVAC Occupied	EHS-062918-IA-138A-OCC	0.15	0.69	
Room 139	HVAC Unoccupied	EHS-062818-IA-139-UN	0.16	15	
Room 139	HVAC Occupied	EHS-062918-IA-139-OCC	0.15	1.5	
Room 145	HVAC Unoccupied	EHS-062818-IA-145-UN	0.15	48	
Room 145	HVAC Occupied	EHS-062918-IA-145-OCC	0.15	5.3	
K Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-K-UN	0.15	0.17	
K Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-K-OCC	0.26	0.43	J
K Wing Hallway	HVAC Unoccupied	EHS-062818-IA-K-UN	0.15	4.7	
K Wing Hallway	HVAC Occupied	EHS-062918-IA-K-OCC	0.15	1.1	
K Wing SSDS	K Wing Stack	EHS-062818-EF-KWING	5.6		ND
Gym	HVAC Unoccupied	EHS-062818-IA-GYM-UN	0.14	51	
Gym	HVAC Occupied	EHS-062918-IA-GYM-OCC	0.15	3.1	
Gym SSDS	Gym Stack	EHS-062818-EF-GYM	5.4	36	
Room 168	HVAC Unoccupied	EHS-062818-IA-164-UN	0.16	7.6	
Room 168	HVAC Occupied	EHS-062918-IA-164-OCC	0.27	0.5	
Room 168	Sub-slab	EHS-062818-SS-164-UN	5.4		ND
Room 149	HVAC Unoccupied	EHS-062818-IA-151A-UN	0.14	5.3	
Room 149	HVAC Occupied	EHS-062918-IA-151A-OCC	0.16	0.34	
Room 151	Sub-slab	EHS-062818-SS-151-UN	5.5		ND
Room 151	HVS	EHS-062918-HVS-151-1	5.9		ND
Room 151	HVS	EHS-062918-HVS-151-2	5.8		ND
Room 148	HVAC Unoccupied	EHS-062818-IA-148-UN	0.16	1.2	
Room 148	HVAC Occupied	EHS-062918-IA-148-OCC	0.15	0.53	
Room 148	Sub-slab	EHS-062818-SS-148-UN	5.4		ND
Room 148	HVS	EHS-062918-HVS-148-1	5.7		ND
Room 148	HVS	EHS-062918-HVS-148-2	5.9		ND

Table 11
Indoor Air Outdoor Air and Sub-slab Sampling Results for Acetone
June 2018

Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Acetone					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-Oa-127-UN	2	12	
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-127-UN-DUP	1.8	11	
F Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-127-OCC	2	14	
F Wing	F Wing Stack	EHS-062818-EF-FWING	26	110	
Room 127	HVAC Unoccupied	EHS-062818-IA-127-UN	1.8	26	
Room 127	HVAC Occupied	EHS-062918-IA-127-OCC	1.8	16	
Room 120	HVAC Unoccupied	EHS-062818-IA-120-UN	1.9	22	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC	1.8	11	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC-DUP	1.8	12	
Room 120	Sub-slab	EHS-062818-SS-120-UN	27	140	
Room 122	HVAC Unoccupied	EHS-062818-IA-122-UN	1.9	32	
Room 122	HVAC Occupied	EHS-062918-IA-122-OCC	1.8	15	
Room 122	Sub-slab	EHS-062818-SS-122-UN	26	88	
Room 133	HVAC Unoccupied	EHS-062818-IA-133-UN	1.9	29	
Room 133	HVAC Occupied	EHS-062918-IA-133-OCC	1.8	29	
Room 133	Sub-slab	EHS-062818-SS-133-UN	28	160	
Room 100	HVAC Unoccupied	EHS-062818-IA-100-UN	1.9	42	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC	1.7	16	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC-DUP	1.8	16	
Room 103	HVAC Unoccupied	EHS-062818-IA-103-UN	2	27	
Room 103	HVAC Occupied	EHS-062918-IA-103-OCC	1.9	19	
Room 103	Sub-slab	EHS-062818-SS-103-UN	27	120	
Room 104	HVAC Unoccupied	EHS-062818-IA-104-UN	1.8	26	
Room 104	HVAC Occupied	EHS-062918-IA-104-OCC	1.8	16	
Room 109	HVAC Unoccupied	EHS-062818-IA-109-UN	1.8	17	
Room 109	HVAC Occupied	EHS-062918-IA-109-OCC	1.9	13	
Room 109	Sub-slab	EHS-062818-SS-109-UN	28	160	
Cafeteria	HVAC Unoccupied	EHS-062818-IA-CAF-UN	1.8	31	
Cafeteria	HVAC Occupied	EHS-062918-IA-CAF-OCC	1.8	18	
Cafeteria SSDS	Retrofit Stack	EHS-062818-EF-CAFR	27	55	
Cafeteria SSDS	Expansion Stack	EHS-062818-EF-CAFA	29		ND

Table 11 (continued)
Indoor Air Outdoor Air and Sub-slab Sampling Results for Acetone
June 2018

Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Acetone					
		CLIENTSAMPID	REPLMT (ug/m3)	Result	Q
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN	1.9	28	
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN-DUP	1.8	28	
Room 135 Cafeteria	HVAC Occupied	EHS-062918-IA-135-OCC	1.9	23	
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN	25	360	J
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN-DUP	53	1400	J
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-1	28	100	
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-2	29	64	
Room 138 A	HVAC Unoccupied	EHS-062818-IA-138A-UN	1.8	84	
Room 138 A	HVAC Occupied	EHS-062918-IA-138A-OCC	1.8	17	
Room 139	HVAC Unoccupied	EHS-062818-IA-139-UN	1.9	45	
Room 139	HVAC Occupied	EHS-062918-IA-139-OCC	1.8	26	
Room 145	HVAC Unoccupied	EHS-062818-IA-145-UN	1.8	41	
Room 145	HVAC Occupied	EHS-062918-IA-145-OCC	1.8	22	
K Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-K-UN	1.8	13	
K Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-K-OCC	3.2	25	J
K Wing Hallway	HVAC Unoccupied	EHS-062818-IA-K-UN	1.8	26	
K Wing Hallway	HVAC Occupied	EHS-062918-IA-K-OCC	1.8	31	
K Wing SSDS	K Wing Stack	EHS-062818-EF-KWING	27		ND
Gym	HVAC Unoccupied	EHS-062818-IA-GYM-UN	1.8	34	
Gym	HVAC Occupied	EHS-062918-IA-GYM-OCC	1.8	13	
Gym SSDS	Gym Stack	EHS-062818-EF-GYM	26		ND
Room 168	HVAC Unoccupied	EHS-062818-IA-164-UN	1.9	55	
Room 168	HVAC Occupied	EHS-062918-IA-164-OCC	3.3	20	
Room 168	Sub-slab	EHS-062818-SS-164-UN	26	74	
Room 149	HVAC Unoccupied	EHS-062818-IA-151A-UN	1.8	87	
Room 149	HVAC Occupied	EHS-062918-IA-151A-OCC	2	23	
Room 151	Sub-slab	EHS-062818-SS-151-UN	27	37	
Room 151	HVS	EHS-062918-HVS-151-1	29	130	
Room 151	HVS	EHS-062918-HVS-151-2	28	43	
Room 148	HVAC Unoccupied	EHS-062818-IA-148-UN	1.9	26	
Room 148	HVAC Occupied	EHS-062918-IA-148-OCC	1.8	36	
Room 148	Sub-slab	EHS-062818-SS-148-UN	26	81	
Room 148	HVS	EHS-062918-HVS-148-1	28		ND
Room 148	HVS	EHS-062918-HVS-148-2	29		ND

Table 12
Indoor Air Outdoor Air and Sub-slab Sampling Results for Ethanol
June 2018

Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Ethanol					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-Oa-127-UN	1.6	3.8	
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-127-UN-DUP	1.4	3.3	
F Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-127-OCC	1.6	12	
F Wing	F Wing Stack	EHS-062818-EF-FWING	8.3	20	
Room 127	HVAC Unoccupied	EHS-062818-IA-127-UN	1.5	36	
Room 127	HVAC Occupied	EHS-062918-IA-127-OCC	1.4	16	
Room 120	HVAC Unoccupied	EHS-062818-IA-120-UN	1.5	21	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC	1.4	6.8	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC-DUP	1.4	7	
Room 120	Sub-slab	EHS-062818-SS-120-UN	8.4	130	
Room 122	HVAC Unoccupied	EHS-062818-IA-122-UN	1.5	62	
Room 122	HVAC Occupied	EHS-062918-IA-122-OCC	1.4	10	
Room 122	Sub-slab	EHS-062818-SS-122-UN	8.3	160	
Room 133	HVAC Unoccupied	EHS-062818-IA-133-UN	1.5	51	
Room 133	HVAC Occupied	EHS-062918-IA-133-OCC	1.4	48	
Room 133	Sub-slab	EHS-062818-SS-133-UN	8.8	80	
Room 100	HVAC Unoccupied	EHS-062818-IA-100-UN	1.5	62	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC	1.4	14	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC-DUP	1.4	15	
Room 103	HVAC Unoccupied	EHS-062818-IA-103-UN	1.6	24	
Room 103	HVAC Occupied	EHS-062918-IA-103-OCC	1.5	6.4	
Room 103	Sub-slab	EHS-062818-SS-103-UN	8.6	210	
Room 104	HVAC Unoccupied	EHS-062818-IA-104-UN	1.5	8.7	
Room 104	HVAC Occupied	EHS-062918-IA-104-OCC	1.4	6.7	
Room 109	HVAC Unoccupied	EHS-062818-IA-109-UN	1.4	17	
Room 109	HVAC Occupied	EHS-062918-IA-109-OCC	1.5	7.7	
Room 109	Sub-slab	EHS-062818-SS-109-UN	8.8	130	
Cafeteria	HVAC Unoccupied	EHS-062818-IA-CAF-UN	1.4	36	
Cafeteria	HVAC Occupied	EHS-062918-IA-CAF-OCC	1.5	7.6	
Cafeteria SSDS	Retrofit Stack	EHS-062818-EF-CAFR	8.4		ND
Cafeteria SSDS	Expansion Stack	EHS-062818-EF-CAFA	9.1		ND

Table 12 (continued)
Indoor Air Outdoor Air and Sub-slab Sampling Results for Ethanol
June 2018

Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Ethanol					
		CLIENTSAMPID	REPLMT (ug/m3)	Result	Q
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN	1.5	26	
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN-DUP	1.4	25	
Room 135 Cafeteria	HVAC Occupied	EHS-062918-IA-135-OCC	1.5	12	
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN	7.9	210	J
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN-DUP	17	810	J
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-1	9	29	
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-2	9.1	20	
Room 138 A	HVAC Unoccupied	EHS-062818-IA-138A-UN	1.4	60	
Room 138 A	HVAC Occupied	EHS-062918-IA-138A-OCC	1.5	17	
Room 139	HVAC Unoccupied	EHS-062818-IA-139-UN	1.5	32	
Room 139	HVAC Occupied	EHS-062918-IA-139-OCC	1.4	15	
Room 145	HVAC Unoccupied	EHS-062818-IA-145-UN	1.5	52	
Room 145	HVAC Occupied	EHS-062918-IA-145-OCC	1.4	13	
K Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-K-UN	1.4	3.2	
K Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-K-OCC	2.5	15	J
K Wing Hallway	HVAC Unoccupied	EHS-062818-IA-K-UN	1.4	25	
K Wing Hallway	HVAC Occupied	EHS-062918-IA-K-OCC	1.5	11	
K Wing SSDS	K Wing Stack	EHS-062818-EF-KWING	8.6		ND
Gym	HVAC Unoccupied	EHS-062818-IA-GYM-UN	1.4		ND
Gym	HVAC Occupied	EHS-062918-IA-GYM-OCC	1.5	3.7	
Gym SSDS	Gym Stack	EHS-062818-EF-GYM	8.3		ND
Room 168	HVAC Unoccupied	EHS-062818-IA-164-UN	1.5	99	
Room 168	HVAC Occupied	EHS-062918-IA-164-OCC	2.6	12	
Room 168	Sub-slab	EHS-062818-SS-164-UN	8.3	120	
Room 149	HVAC Unoccupied	EHS-062818-IA-151A-UN	1.4	17	
Room 149	HVAC Occupied	EHS-062918-IA-151A-OCC	1.6	6.1	
Room 151	Sub-slab	EHS-062818-SS-151-UN	8.4	77	
Room 151	HVS	EHS-062918-HVS-151-1	9.1	9.1	
Room 151	HVS	EHS-062918-HVS-151-2	9		ND
Room 148	HVAC Unoccupied	EHS-062818-IA-148-UN	1.5	13	
Room 148	HVAC Occupied	EHS-062918-IA-148-OCC	1.4	14	
Room 148	Sub-slab	EHS-062818-SS-148-UN	8.3	86	
Room 148	HVS	EHS-062918-HVS-148-1	8.8	12	
Room 148	HVS	EHS-062918-HVS-148-2	9.1		ND

Table 13
Indoor Air Outdoor Air and Sub-slab Sampling Results for Toluene
June 2018

Former Sperry Remington Site - North Portion
Elmira, New York

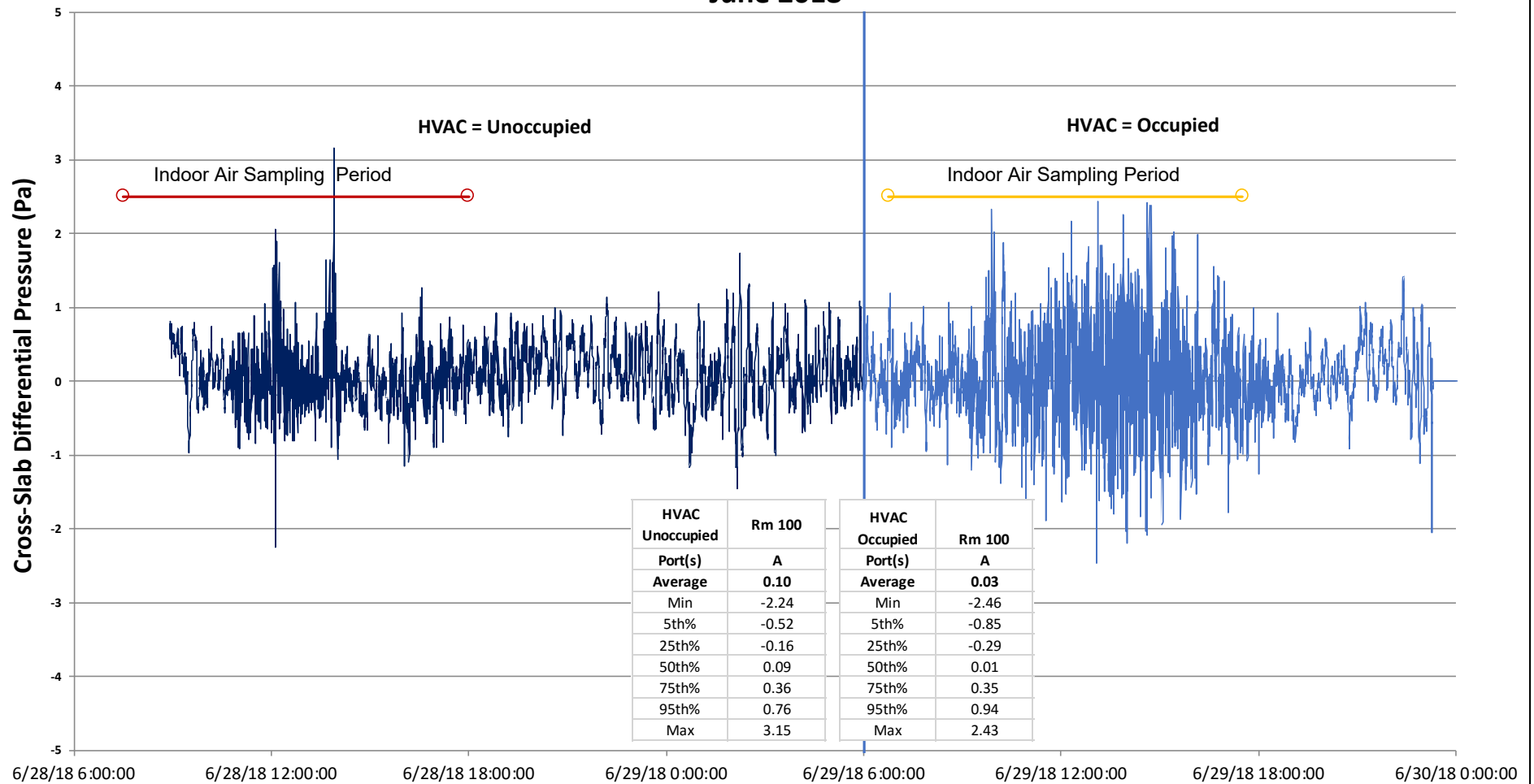
Indoor Air - Outdoor Air - Subslab Results for Toluene					
		CLIENTSAMPID	REPLMT (ug/m3)	Result (ug/m3)	Q
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-Oa-127-UN	0.13	0.74	
F Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-127-UN-DUP	0.12	0.7	
F Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-127-OCC	0.12	0.56	
F Wing	F Wing Stack	EHS-062818-EF-FWING	4.1	5.9	
Room 127	HVAC Unoccupied	EHS-062818-IA-127-UN	0.12	5.1	
Room 127	HVAC Occupied	EHS-062918-IA-127-OCC	0.11	1.4	
Room 120	HVAC Unoccupied	EHS-062818-IA-120-UN	0.12	2.2	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC	0.12	0.9	
Room 120	HVAC Occupied	EHS-062918-IA-120-OCC-DUP	0.11	1.7	
Room 120	Sub-slab	EHS-062818-SS-120-UN	4.2		ND
Room 122	HVAC Unoccupied	EHS-062818-IA-122-UN	0.12	6.2	
Room 122	HVAC Occupied	EHS-062918-IA-122-OCC	0.12	1.4	
Room 122	Sub-slab	EHS-062818-SS-122-UN	4.1		ND
Room 133	HVAC Unoccupied	EHS-062818-IA-133-UN	0.12	3.1	
Room 133	HVAC Occupied	EHS-062918-IA-133-OCC	0.11	1.2	
Room 133	Sub-slab	EHS-062818-SS-133-UN	4.4		ND
Room 100	HVAC Unoccupied	EHS-062818-IA-100-UN	0.12	3.6	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC	0.11	0.85	
Room 100	HVAC Occupied	EHS-062918-IA-100-OCC-DUP	0.11	1.2	
Room 103	HVAC Unoccupied	EHS-062818-IA-103-UN	0.13	2.2	
Room 103	HVAC Occupied	EHS-062918-IA-103-OCC	0.12	0.76	
Room 103	Sub-slab	EHS-062818-SS-103-UN	4.3		ND
Room 104	HVAC Unoccupied	EHS-062818-IA-104-UN	0.12	1.3	
Room 104	HVAC Occupied	EHS-062918-IA-104-OCC	0.11	1.4	
Room 109	HVAC Unoccupied	EHS-062818-IA-109-UN	0.12	3.4	
Room 109	HVAC Occupied	EHS-062918-IA-109-OCC	0.12	2	
Room 109	Sub-slab	EHS-062818-SS-109-UN	4.4		ND
Cafeteria	HVAC Unoccupied	EHS-062818-IA-CAF-UN	0.12	6.8	
Cafeteria	HVAC Occupied	EHS-062918-IA-CAF-OCC	0.12	0.62	
Cafeteria SSDS	Retrofit Stack	EHS-062818-EF-CAFR	4.2		ND
Cafeteria SSDS	Expansion Stack	EHS-062818-EF-CAFA	4.6		ND

Table 13 (continued)
Indoor Air Outdoor Air and Sub-slab Sampling Results for Toluene
June 2018
Former Sperry Remington Site - North Portion
Elmira, New York

Indoor Air - Outdoor Air - Subslab Results for Toluene					
		CLIENTSAMPID	REPLMT (ug/m3)	Result	Q
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN	0.12	4.1	
Room 135 Cafeteria	HVAC Unoccupied	EHS-062818-IA-135-UN-DUP	0.11	4	
Room 135 Cafeteria	HVAC Occupied	EHS-062918-IA-135-OCC	0.12	0.85	
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN	3.9	540	J
Room 135 Cafeteria	Sub-slab	EHS-062818-SS-135-UN-DUP	8.4	2900	J
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-1	4.5	130	
Room 135 Cafeteria	HVS	EHS-062918-HVS-135-2	4.6	90	
Room 138 A	HVAC Unoccupied	EHS-062818-IA-138A-UN	0.12	5.6	
Room 138 A	HVAC Occupied	EHS-062918-IA-138A-OCC	0.12	0.76	
Room 139	HVAC Unoccupied	EHS-062818-IA-139-UN	0.12	17	
Room 139	HVAC Occupied	EHS-062918-IA-139-OCC	0.12	3.4	
Room 145	HVAC Unoccupied	EHS-062818-IA-145-UN	0.12	2.4	
Room 145	HVAC Occupied	EHS-062918-IA-145-OCC	0.11	0.96	
K Wing Outdoor Air	HVAC Unoccupied	EHS-062818-OA-K-UN	0.11	0.5	
K Wing Outdoor Air	HVAC Occupied	EHS-062918-OA-K-OCC	0.2	140	
K Wing Hallway	HVAC Unoccupied	EHS-062818-IA-K-UN	0.11	2.6	
K Wing Hallway	HVAC Occupied	EHS-062918-IA-K-OCC	0.12	0.83	
K Wing SSDS	K Wing Stack	EHS-062818-EF-KWING	4.3		ND
Gym	HVAC Unoccupied	EHS-062818-IA-GYM-UN	0.11	1	
Gym	HVAC Occupied	EHS-062918-IA-GYM-OCC	0.12	0.54	
Gym SSDS	Gym Stack	EHS-062818-EF-GYM	4.1	9.4	
Room 168	HVAC Unoccupied	EHS-062818-IA-164-UN	0.12	15	
Room 168	HVAC Occupied	EHS-062918-IA-164-OCC	0.21	9	
Room 168	Sub-slab	EHS-062818-SS-164-UN	4.1	6.9	
Room 149	HVAC Unoccupied	EHS-062818-IA-151A-UN	0.11	11	
Room 149	HVAC Occupied	EHS-062918-IA-151A-OCC	0.13	1.2	
Room 151	Sub-slab	EHS-062818-SS-151-UN	4.2		ND
Room 151	HVS	EHS-062918-HVS-151-1	4.6		ND
Room 151	HVS	EHS-062918-HVS-151-2	4.5		ND
Room 148	HVAC Unoccupied	EHS-062818-IA-148-UN	0.12	4.4	
Room 148	HVAC Occupied	EHS-062918-IA-148-OCC	0.11	23	
Room 148	Sub-slab	EHS-062818-SS-148-UN	4.1	10	
Room 148	HVS	EHS-062918-HVS-148-1	4.4	8.9	
Room 148	HVS	EHS-062918-HVS-148-2	4.6		ND

FIGURES

Elmira High School Room 100 Cross-slab Differential Pressure June 2018



Cross-slab Differential Pressure Room 100

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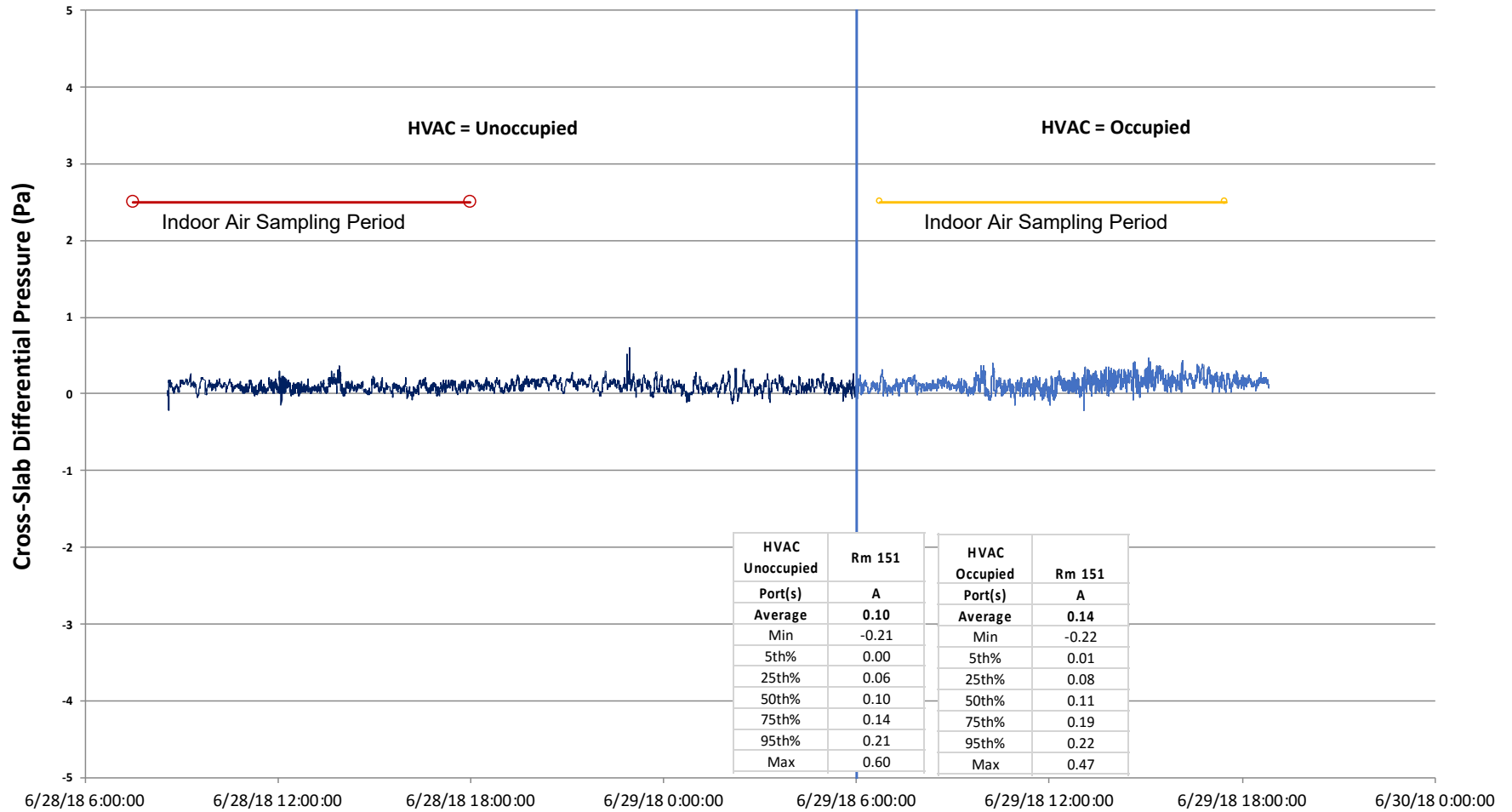
an affiliate of Geosyntec Consultants

Albany, NY

August 2018

Figure
1

Elmira High School Room 151 Cross-slab Differential Pressure June 2018



Cross-slab Differential Pressure Room 151

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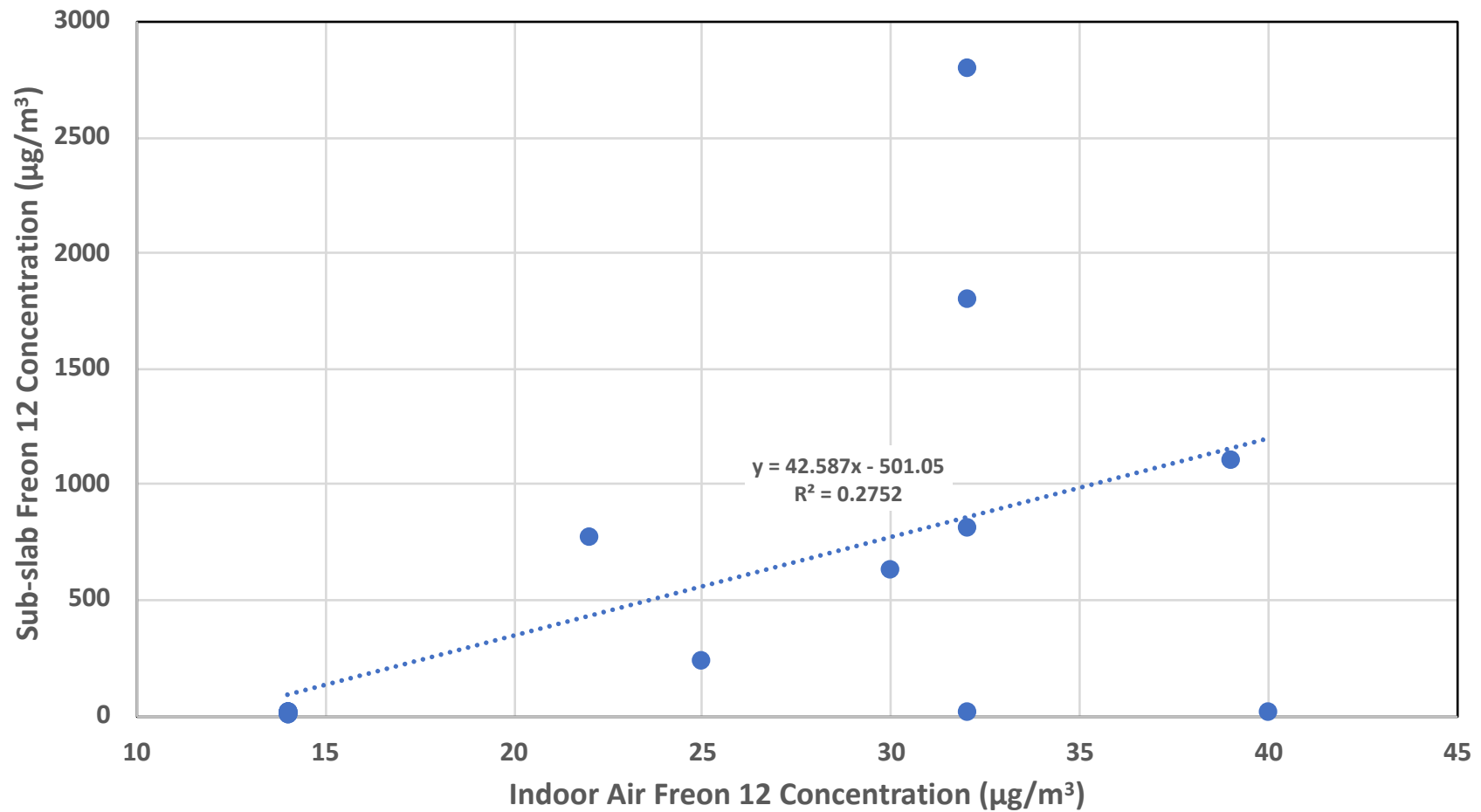
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August 2018

Figure
2

Indoor vs Sub-slab Concentrations of Freon 12



Detected Concentrations of Freon 12
Indoor vs Sub-slab

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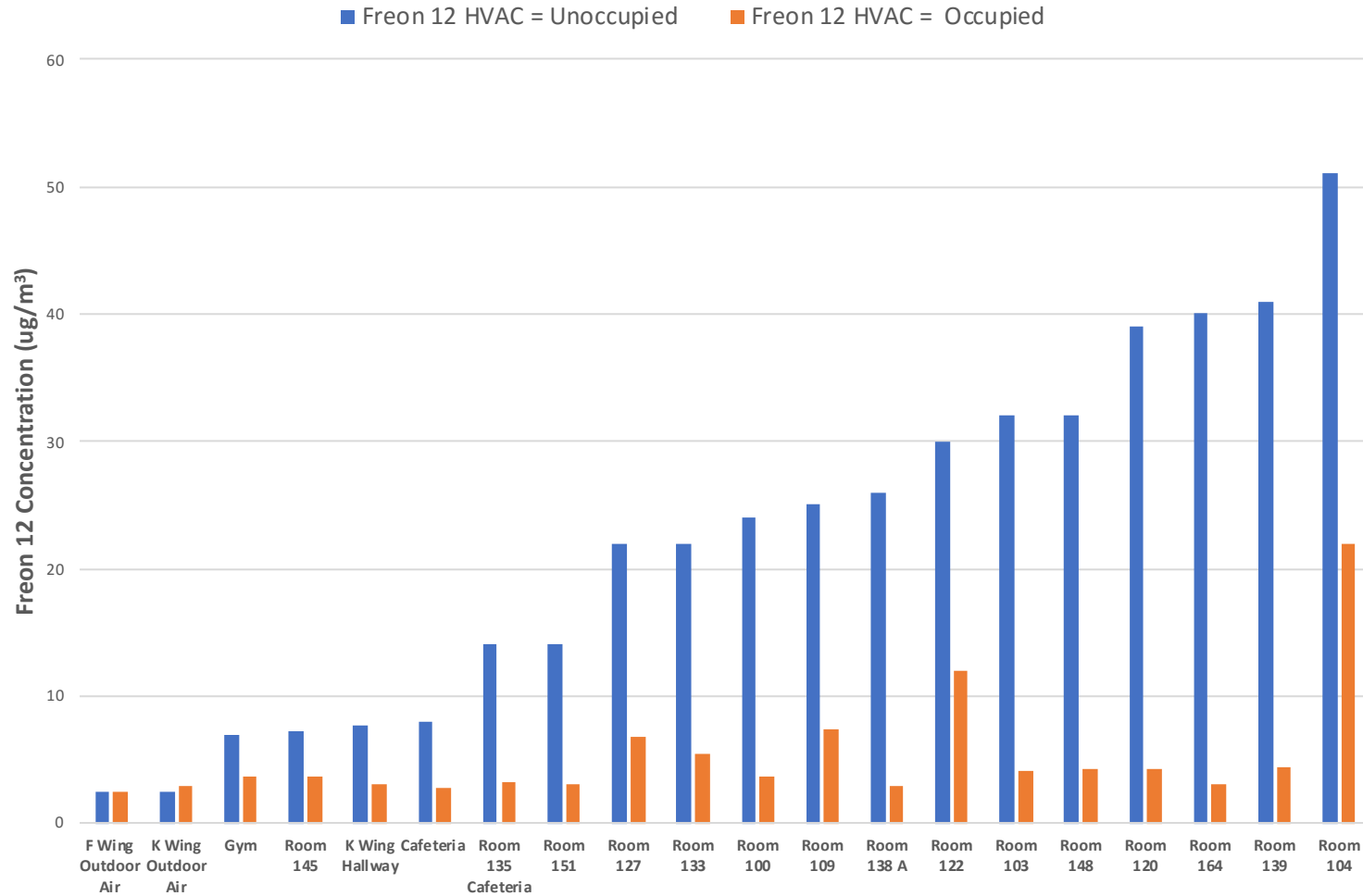
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Figure
3

HVAC Status vs Freon 12 Concentration in Air



Detected Concentrations of Freon 12 In Air

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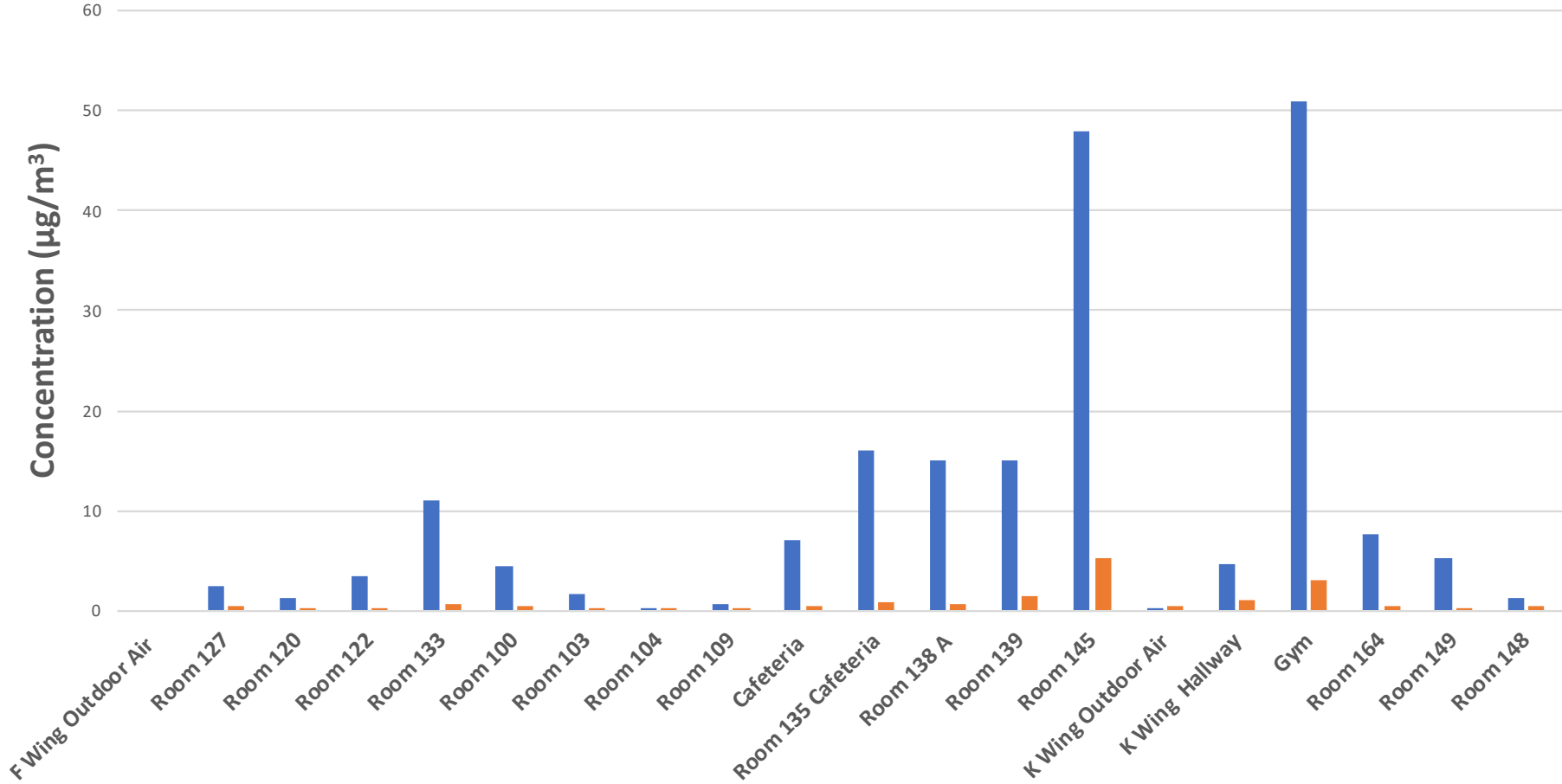
Albany, NY

August 2018

Figure
4

HVAC Status vs Chloroform Concentration in Air

■ HVAC Unoccupied ■ HVAC Occupied



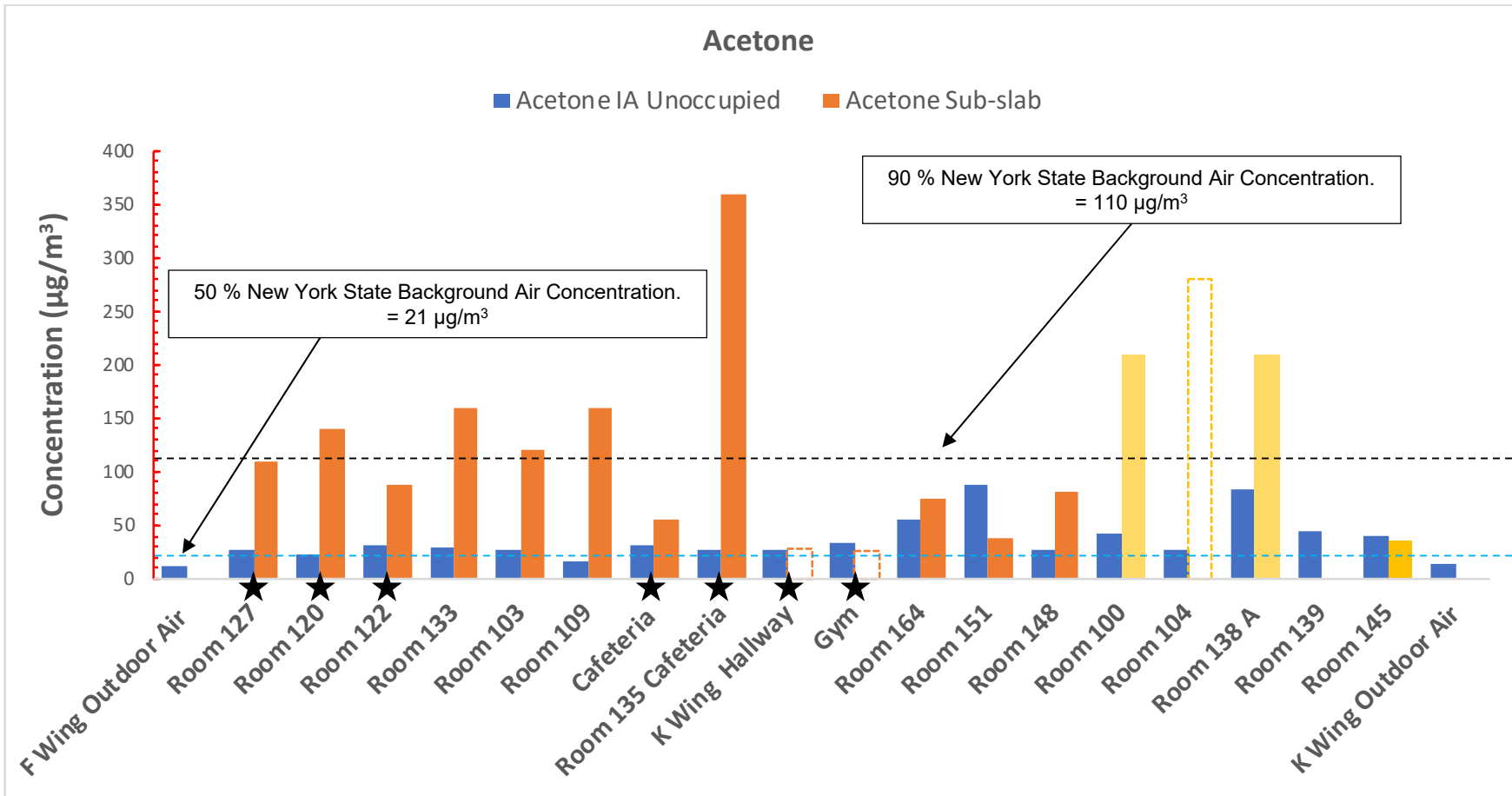
Detected Concentrations of Chloroform in Air

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August 2018

Figure
5



Legend

- Measured Indoor Air Concentration (2018)
- Measured Sub-slab Concentration (2018) ★ Captured by SSDS
- Measured Sub-slab Concentration (2014)
- Not Detected at the Depicted Reporting Limit

Detected Concentrations of Acetone Indoor vs Sub-slab

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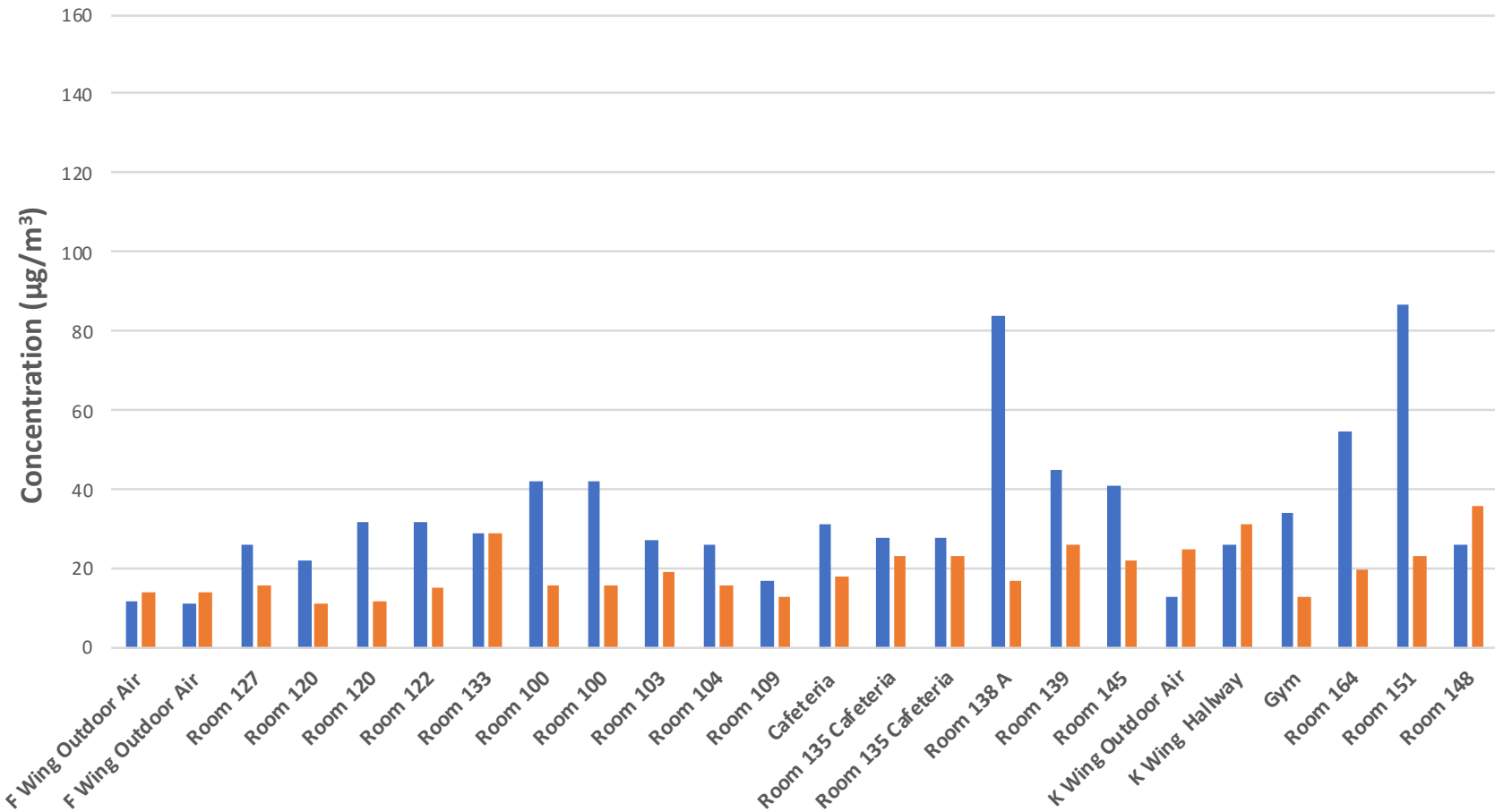
Albany, NY

August 2018

Figure
6

Acetone

■ Unoccupied ■ Occupied



Detected Concentrations of Acetone in Air

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engineering p.c.

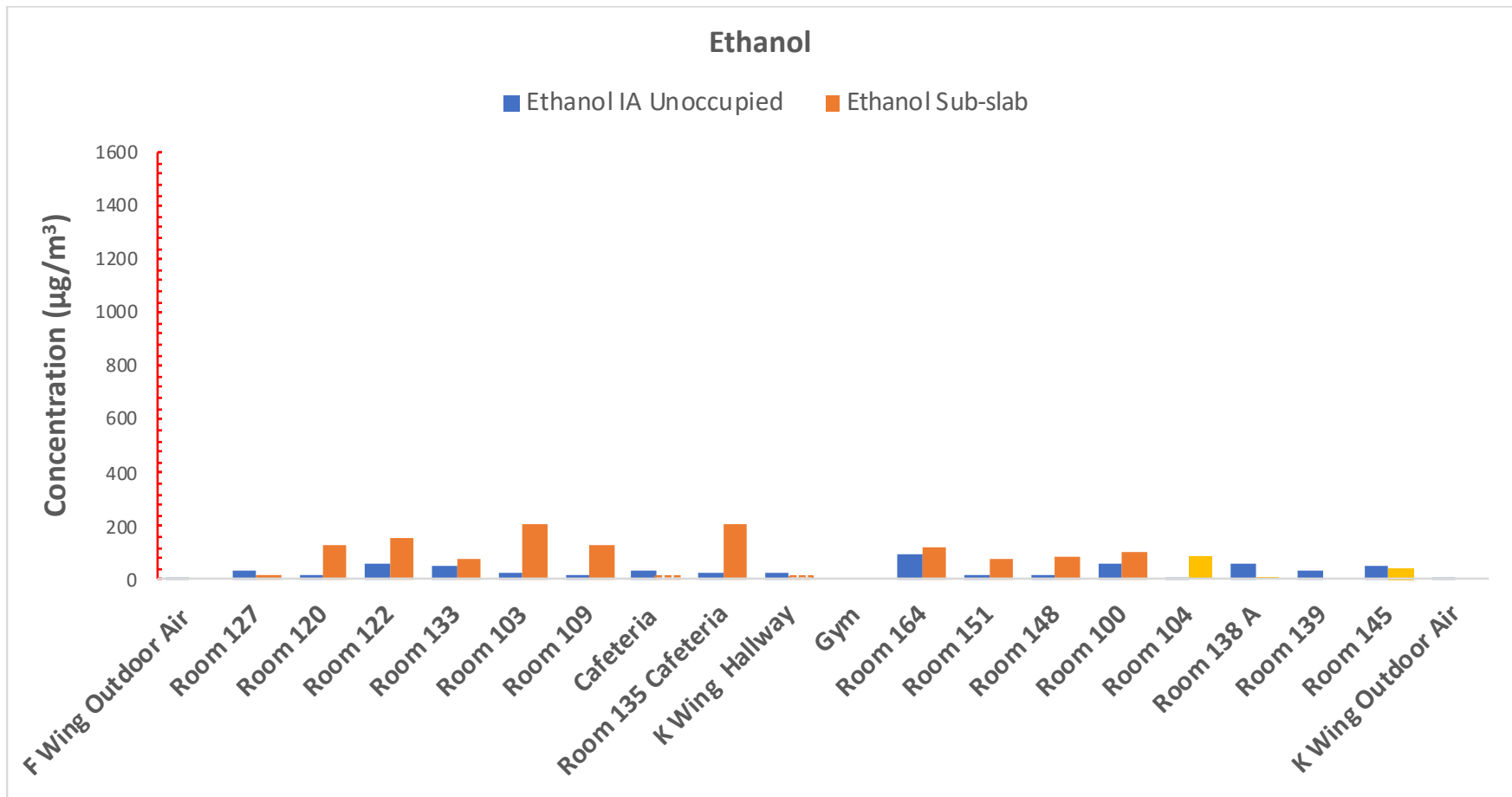
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Albany, NY

August 2018


Figure

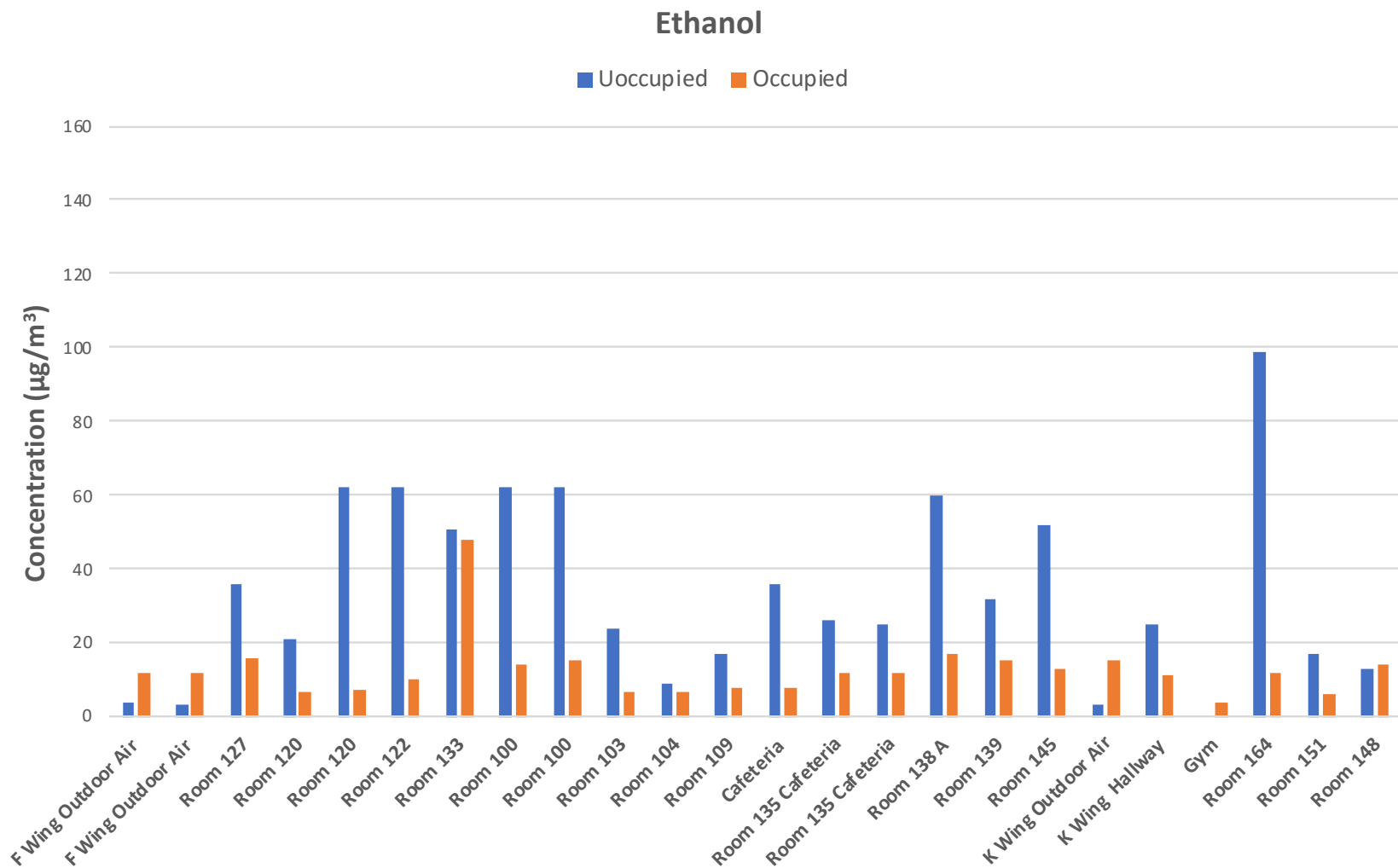
7



Legend

- Measured Indoor Air Concentration (2018)
- Measured Sub-slab Concentration (2018) ★ Captured by SSDS
- Measured Sub-slab Concentration (2014)
- Not Detected at the Depicted Reporting Limit

Detected Concentrations of Ethanol Indoor vs Sub-slab		
Beech and Bonaparte  engineering p.c. <i>an affiliate of Geosyntec Consultants</i>		Figure 8
Albany, NY	August 2018	



Detected Concentrations of Ethanol in Air

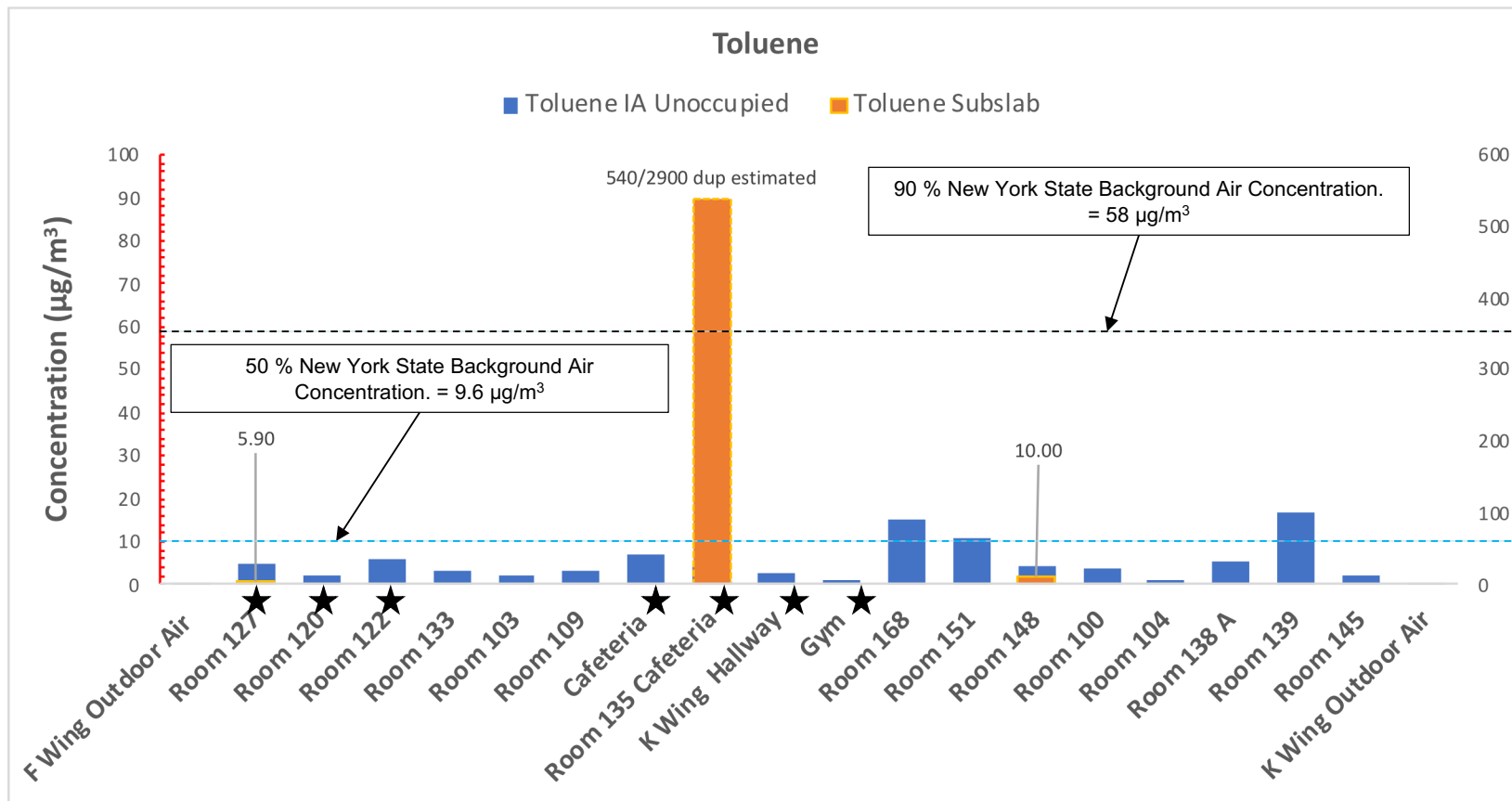
Beech and Bonaparte 
engineering p.c.

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Albany, NY

August 2018

Figure
9



Legend

- Measured Indoor Air Concentration (2018)
- Measured Subslab Concentration (2018) ★ Captured by SSDS
- Measured Subslab Concentration (2014)
- Not Detected at the Depicted Reporting Limit

Detected Concentrations of Toluene Indoor vs Subslab

Geosyntec
consultants

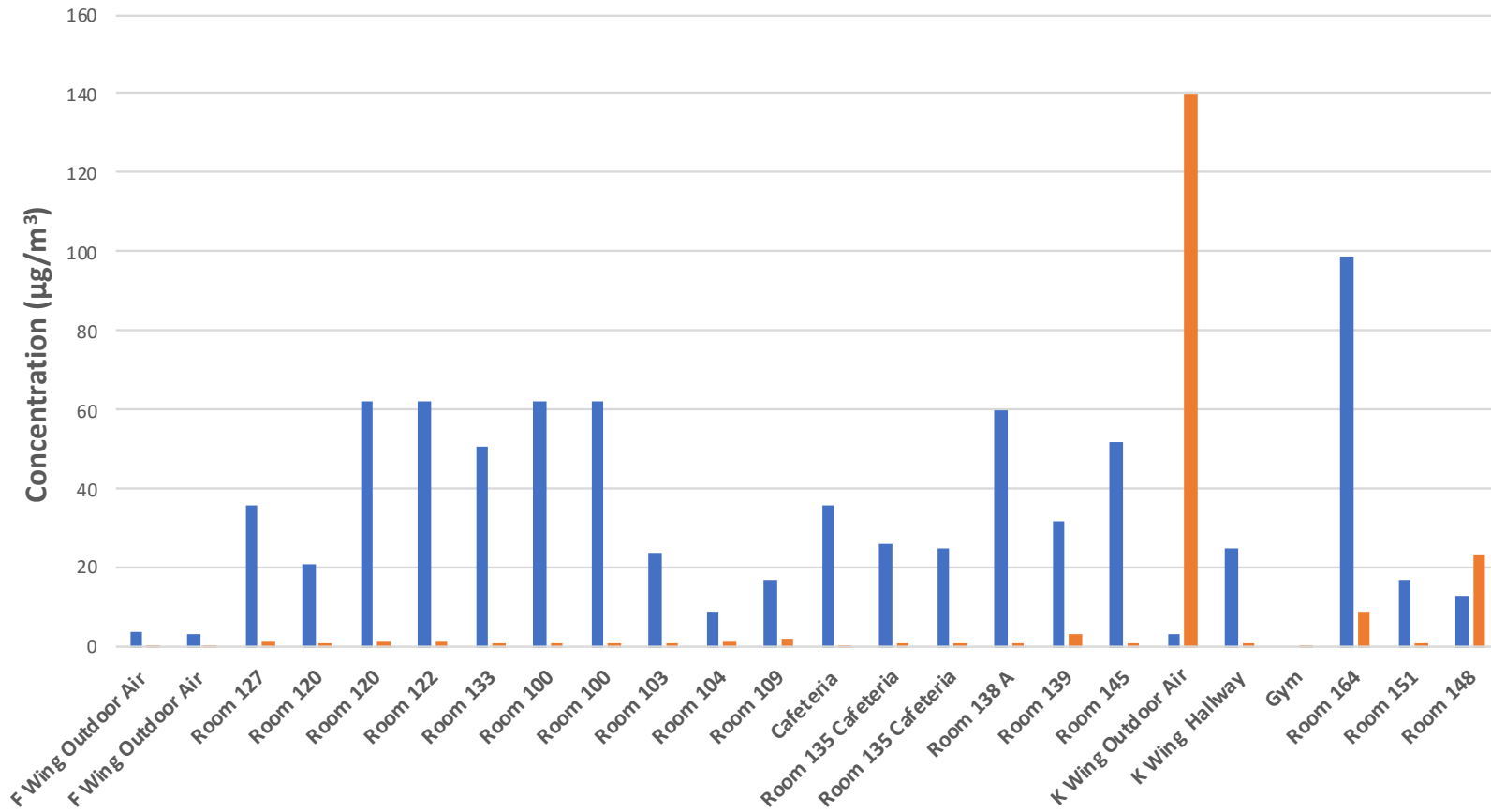
Figure
10

Albany, NY

August 2018

Toluene

■ Uoccupied ■ Occupied



Detected Concentrations of Toluene in Air

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Albany, NY

August 2018

Figure
11

APPENDIX A

Summary Table of Detected Concentrations

Appendix A
Summary Table of Detected Concentrations

Beech and Bonaparte

Location	Sample ID	1,1,1-Trichloroethane	Q	1,1,2,2-Tetrachloroethane	Q	1,2,4-Trimethylbenzene	Q	1,2-Dichloroethane	Q	1,2-Dichloropropane	Q	1,3,5-Trimethylbenzene	Q	1,4-Dioxane	Q	2,2,4-Trimethylpentane	Q
Cafeteria	EHS-062818-EF-CAFA																
Cafeteria	EHS-062818-EF-CAFR																
Cafeteria	EHS-062818-IA-CAF-UN					3.4		0.14				0.77		0.93			
Cafeteria	EHS-062918-IA-CAF-OCC																
F Wing	EHS-062818-EF-FWING																
Gym	EHS-062818-EF-GYM																
Gym	EHS-062818-IA-GYM-UN																
Gym	EHS-062918-IA-GYM-OCC																
K Wing	EHS-062818-EF-KWING																
K Wing	EHS-062818-IA-K-UN							0.16									
K Wing	EHS-062818-OA-K-UN																
K Wing	EHS-062918-IA-K-OCC																
K Wing	EHS-062918-OA-K-OCC					3.9		0.41	J							7.5	J
Room 100	EHS-062818-IA-100-UN							0.42						1.5			
Room 100	EHS-062918-IA-100-OCC																
Room 100	EHS-062918-IA-100-OCC-DUP																
Room 103	EHS-062818-IA-103-UN							0.22									
Room 103	EHS-062818-SS-103-UN																
Room 103	EHS-062918-IA-103-OCC																
Room 104	EHS-062818-IA-104-UN							0.16									
Room 104	EHS-062918-IA-104-OCC																
Room 109	EHS-062818-IA-109-UN							0.12									
Room 109	EHS-062818-SS-109-UN																
Room 109	EHS-062918-IA-109-OCC																
Room 120	EHS-062818-IA-120-UN							0.28									
Room 120	EHS-062818-SS-120-UN																
Room 120	EHS-062918-IA-120-OCC																
Room 120	EHS-062918-IA-120-OCC-DUP																
Room 122	EHS-062818-IA-122-UN							0.62									
Room 122	EHS-062818-SS-122-UN																
Room 122	EHS-062918-IA-122-OCC																
Room 127	EHS-062818-IA-127-UN							1.1									
Room 127	EHS-062818-OA-127-UN-DUP																
Room 127	EHS-062818-Oa-127-UN																
Room 127	EHS-062918-IA-127-OCC							0.27									
Room 127	EHS-062918-OA-127-OCC													4.2			
Room 133	EHS-062818-IA-133-UN							0.43						1.2			
Room 133	EHS-062818-SS-133-UN																
Room 133	EHS-062918-IA-133-OCC							0.3									
Room 135	EHS-062818-IA-135-UN					1.2		0.17									
Room 135	EHS-062818-IA-135-UN-DUP					1		0.18									
Room 135	EHS-062818-SS-135-UN																
Room 135	EHS-062818-SS-135-UN-DUP																
Room 135	EHS-062918-HVS-135-1																
Room 135	EHS-062918-HVS-135-2																
Room 135	EHS-062918-IA-135-OCC																
Room 138A	EHS-062818-IA-138A-UN					0.97		0.16									
Room 138A	EHS-062918-IA-138A-OCC																
Room 139	EHS-062818-IA-139-UN	0.59				2.7		0.16									
Room 139	EHS-062918-IA-139-OCC	0.27				0.73	J										
Room 145	EHS-062818-IA-145-UN							4.6									
Room 145	EHS-062918-IA-145-OCC			0.37				0.9									
Room 148	EHS-062818-IA-148-UN																
Room 148	EHS-062818-SS-148-UN																
Room 148	EHS-062918-HVS-148-1																
Room 148	EHS-062918-HVS-148-2																
Room 148	EHS-062918-IA-148-OCC					2		0.14		1.7						4.4	
Room 151	EHS-062818-SS-151-UN																
Room 151	EHS-062918-HVS-151-1																
Room 151	EHS-062918-HVS-151-2																
Room 149	EHS-062818-IA-151A-UN					1.5		0.15									
Room 149	EHS-062918-IA-151A-OCC			0.32													
Room 168	EHS-062818-IA-164-UN					1.6											
Room 168	EHS-062818-SS-164-UN																
Room 168	EHS-062918-IA-164-OCC					3.5		0.25									

Appendix A
Summary Table of Detected Concentrations

Beech and Bonaparte

Location	Sample ID	2-Butanone (Methyl Ethyl Ketone)	Q	2-Propanol	Q	4-Ethyltoluene	Q	4-Methyl-2- pentanone	Q	Acetone	Q	Benzene	Q	Bromodichloromethane	Q	Carbon Tetrachloride	Q
Cafeteria	EHS-062818-EF-CAFA																
Cafeteria	EHS-062818-EF-CAFR									55							
Cafeteria	EHS-062818-IA-CAF-UN	5		7.3		3.8	J	1.3	J	31		0.52		1.8		0.39	
Cafeteria	EHS-062918-IA-CAF-OCC	3.1								18						0.48	
F Wing	EHS-062818-EF-FWING	70		12				9.5		110							
Gym	EHS-062818-EF-GYM																
Gym	EHS-062818-IA-GYM-UN	3.6								34		0.33		15		0.57	
Gym	EHS-062918-IA-GYM-OCC									13				1	J	0.44	
K Wing	EHS-062818-EF-KWING																
K Wing	EHS-062818-IA-K-UN	2.6		12				1.2	J	26		0.4		1.2		0.42	
K Wing	EHS-062818-OA-K-UN									13		0.26				0.52	
K Wing	EHS-062918-IA-K-OCC	4.2		5.8						31		0.26				0.42	
K Wing	EHS-062918-OA-K-OCC	11	J	10	J	3		1.6	J	25	J	1	J			0.47	J
Room 100	EHS-062818-IA-100-UN	4		10				0.7	J	42		0.5				0.43	
Room 100	EHS-062918-IA-100-OCC			2.2	J					16		0.27				0.5	
Room 100	EHS-062918-IA-100-OCC-DUP			4.2	J					16		0.3				0.5	
Room 103	EHS-062818-IA-103-UN	3.8		4.2				0.69	J	27		0.37				0.42	
Room 103	EHS-062818-SS-103-UN	15								120							
Room 103	EHS-062918-IA-103-OCC	2.3	J	1.9						19		0.26				0.48	
Room 104	EHS-062818-IA-104-UN	3.4		2.8						26		0.31				0.45	
Room 104	EHS-062918-IA-104-OCC	2.7								16		0.28				0.49	
Room 109	EHS-062818-IA-109-UN			3.4						17		0.37				0.4	
Room 109	EHS-062818-SS-109-UN	37		23				8		160							
Room 109	EHS-062918-IA-109-OCC	2.4								13						0.46	
Room 120	EHS-062818-IA-120-UN	3.3		3.3						22		0.39				0.34	
Room 120	EHS-062818-SS-120-UN	14		17				23		140							
Room 120	EHS-062918-IA-120-OCC									11		0.27				0.49	
Room 120	EHS-062918-IA-120-OCC-DUP									12		0.26				0.5	
Room 122	EHS-062818-IA-122-UN	6.7		9.6				1.2	J	32		0.44				0.35	
Room 122	EHS-062818-SS-122-UN							10		88							
Room 122	EHS-062918-IA-122-OCC	2.9								15		0.29				0.5	
Room 127	EHS-062818-IA-127-UN	3.1		6.8				0.73	J	26		0.42				0.38	
Room 127	EHS-062818-OA-127-UN-DUP									11		0.29	J			0.51	
Room 127	EHS-062818-Oa-127-UN									12		0.4	J			0.49	
Room 127	EHS-062918-IA-127-OCC	3.4		2						16		0.3				0.48	
Room 127	EHS-062918-OA-127-OCC	3.2		2.1						14						0.48	
Room 133	EHS-062818-IA-133-UN	2.9		8.9						29		0.47		2.9		0.47	
Room 133	EHS-062818-SS-133-UN									160							
Room 133	EHS-062918-IA-133-OCC	4.1		6.3						29		0.25				0.39	
Room 135	EHS-062818-IA-135-UN	3.2		5.8		0.98	J	0.94	J	28		0.57		3.9		0.48	
Room 135	EHS-062818-IA-135-UN-DUP	3.3		5.2		0.92	J	1	J	28		0.6		4.4		0.46	
Room 135	EHS-062818-SS-135-UN	22		11		6.6	J			360	J						
Room 135	EHS-062818-SS-135-UN-DUP	26	J			42	J			1400	J	8	J				
Room 135	EHS-062918-HVS-135-1	23								100							
Room 135	EHS-062918-HVS-135-2									64							
Room 135	EHS-062918-IA-135-OCC	4.1		2.2						23						0.4	
Room 138A	EHS-062818-IA-138A-UN	41		4.9				1.7	J	84		0.94		3.5		0.49	
Room 138A	EHS-062918-IA-138A-OCC	4.4								17		0.98				0.36	
Room 139	EHS-062818-IA-139-UN	10		8.6		2	J	0.99	J	45		2.5		3.8		0.43	
Room 139	EHS-062918-IA-139-OCC	5.9		3.8						26		0.48				0.38	
Room 145	EHS-062818-IA-145-UN	4.2		15						41		0.44		11		0.5	
Room 145	EHS-062918-IA-145-OCC	3.8		4.4						22		0.36		1.4		0.44	
Room 148	EHS-062818-IA-148-UN	2.4		2.7						26		0.3				0.38	
Room 148	EHS-062818-SS-148-UN	14								81							
Room 148	EHS-062918-HVS-148-1																
Room 148	EHS-062918-HVS-148-2																
Room 148	EHS-062918-IA-148-OCC	7.6		6.8		1.7		0.96		36		0.62				0.62	
Room 151	EHS-062818-SS-151-UN									37							
Room 151	EHS-062918-HVS-151-1									130							
Room 151	EHS-062918-HVS-151-2									43							
Room 149	EHS-062818-IA-151A-UN	9.1		11		1		0.85	J	87		0.52		1.1		0.45	
Room 149	EHS-062918-IA-151A-OCC	4.5								23		0.35				0.37	
Room 168	EHS-062818-IA-164-UN	3.3		6		1.3				55		2.9		1.8		0.49	
Room 168	EHS-062818-SS-164-UN	17								74							
Room 168	EHS-062918-IA-164-OCC			6.2		2.5				20		0.5					

Appendix A
Summary Table of Detected Concentrations

Beech and Bonaparte

Location	Sample ID	Chloroform	Q	Chloromethane	Q	cis-1,2-Dichloroethene	Q	Cumene	Q	Cyclohexane	Q	Dibromochloromethane	Q	Ethanol	Q	Ethyl Benzene	Q
Cafeteria	EHS-062818-EF-CAFA																
Cafeteria	EHS-062818-EF-CAFR	10															
Cafeteria	EHS-062818-IA-CAF-UN	7.1								0.71				36		2.3	
Cafeteria	EHS-062918-IA-CAF-OCC	0.45												7.6		0.16	
F Wing	EHS-062818-EF-FWING					67								20			
Gym	EHS-062818-EF-GYM	36															
Gym	EHS-062818-IA-GYM-UN	51										4.6				0.15	
Gym	EHS-062918-IA-GYM-OCC	3.1												3.7			
K Wing	EHS-062818-EF-KWING																
K Wing	EHS-062818-IA-K-UN	4.7												25		2.1	
K Wing	EHS-062818-OA-K-UN	0.17												3.2			
K Wing	EHS-062918-IA-K-OCC	1.1		1.7										11			
K Wing	EHS-062918-OA-K-OCC	0.43 J								2.7 J				15 J		3.8 J	
Room 100	EHS-062818-IA-100-UN	4.4								1.6				62		0.45	
Room 100	EHS-062918-IA-100-OCC	0.42												14			
Room 100	EHS-062918-IA-100-OCC-DUP	0.4				0.15 J								15		0.15 J	
Room 103	EHS-062818-IA-103-UN	1.7								1				24		0.29	
Room 103	EHS-062818-SS-103-UN									32				210			
Room 103	EHS-062918-IA-103-OCC	0.18												6.4			
Room 104	EHS-062818-IA-104-UN	0.38												8.7		0.18	
Room 104	EHS-062918-IA-104-OCC	0.19												6.7		0.18	
Room 109	EHS-062818-IA-109-UN	0.64												17		0.21	
Room 109	EHS-062818-SS-109-UN													130			
Room 109	EHS-062918-IA-109-OCC	0.17												7.7		0.21	
Room 120	EHS-062818-IA-120-UN	1.2								1.3				21		0.28	
Room 120	EHS-062818-SS-120-UN									28				130			
Room 120	EHS-062918-IA-120-OCC	0.17												6.8			
Room 120	EHS-062918-IA-120-OCC-DUP	0.17												7		0.2 J	
Room 122	EHS-062818-IA-122-UN	3.4								4.3				62		0.6	
Room 122	EHS-062818-SS-122-UN													160			
Room 122	EHS-062918-IA-122-OCC	0.31												10		0.15	
Room 127	EHS-062818-IA-127-UN	2.4								1.4				36		0.31	
Room 127	EHS-062818-OA-127-UN-DUP													3.3			
Room 127	EHS-062818-Oa-127-UN													3.8			
Room 127	EHS-062918-IA-127-OCC	0.42												16		0.13	
Room 127	EHS-062918-OA-127-OCC					0.36								12			
Room 133	EHS-062818-IA-133-UN	11								0.62				51		0.38	
Room 133	EHS-062818-SS-133-UN													80		5.5	
Room 133	EHS-062918-IA-133-OCC	0.63												48		0.14	
Room 135	EHS-062818-IA-135-UN	16												26		0.75	
Room 135	EHS-062818-IA-135-UN-DUP	16		1.6 J										25		0.7	
Room 135	EHS-062818-SS-135-UN	15 J						25 J		18 J				210 J		26 J	
Room 135	EHS-062818-SS-135-UN-DUP							160 J		12 J				810 J		150 J	
Room 135	EHS-062918-HVS-135-1													29			
Room 135	EHS-062918-HVS-135-2													20			
Room 135	EHS-062918-IA-135-OCC	0.85												12		0.15	
Room 138A	EHS-062818-IA-138A-UN	15												60		0.7	
Room 138A	EHS-062918-IA-138A-OCC	0.69												17			
Room 139	EHS-062818-IA-139-UN	15								0.73				32		1.6	
Room 139	EHS-062918-IA-139-OCC	1.5												15		0.27	
Room 145	EHS-062818-IA-145-UN	48										2.9		52		0.31	
Room 145	EHS-062918-IA-145-OCC	5.3												13		0.13	
Room 148	EHS-062818-IA-148-UN	1.2												13		0.17	
Room 148	EHS-062818-SS-148-UN							11						86			
Room 148	EHS-062918-HVS-148-1													12			
Room 148	EHS-062918-HVS-148-2																
Room 148	EHS-062918-IA-148-OCC	0.53								2.4				14		1.6	
Room 151	EHS-062818-SS-151-UN													77			
Room 151	EHS-062918-HVS-151-1													9.1			
Room 151	EHS-062918-HVS-151-2																
Room 149	EHS-062818-IA-151A-UN	5.3		1.5		1.6				0.52				17		3.4	
Room 149	EHS-062918-IA-151A-OCC	0.34												6.1			
Room 168	EHS-062818-IA-164-UN	7.6								1.1				99		1.4	
Room 168	EHS-062818-SS-164-UN													120			
Room 168	EHS-062918-IA-164-OCC	0.5								1.2				12		1.4	

Appendix A
Summary Table of Detected Concentrations

Beech and Bonaparte

Location	Sample ID	Freon 11	Q	Freon 12	Q	Freon 113	Q	Heptane	Q	Hexane	Q	Methylene Chloride	Q	Propylbenzene	Q	Styrene	Q	Tetrachloroethene	Q	Tetrahydrofuran	Q
Cafeteria	EHS-062818-EF-CAFA			45																	
Cafeteria	EHS-062818-EF-CAFR			31																	
Cafeteria	EHS-062818-IA-CAF-UN	1.2		7.9				1.4		1.6		1.6		0.83		2.5		0.58			
Cafeteria	EHS-062918-IA-CAF-OCC	1.3		2.7																	
F Wing	EHS-062818-EF-FWING			140																	
Gym	EHS-062818-EF-GYM			150		330															
Gym	EHS-062818-IA-GYM-UN			6.9														0.33			
Gym	EHS-062918-IA-GYM-OCC	1.2		3.6																	
K Wing	EHS-062818-EF-KWING			56		37															
K Wing	EHS-062818-IA-K-UN	1.3		7.6				1.4		0.96								0.26			
K Wing	EHS-062818-OA-K-UN			2.5														0.29			
K Wing	EHS-062918-IA-K-OCC	1.2		3.1																	
K Wing	EHS-062918-OA-K-OCC			2.9 J				5 J		5.1 J		4.2 J				3.3 J		0.4 J			
Room 100	EHS-062818-IA-100-UN	1.5		24				1.8		0.59						0.88					
Room 100	EHS-062918-IA-100-OCC	1.4		3.7				0.78		0.86											
Room 100	EHS-062918-IA-100-OCC-DUP	1.3		3.6				0.8		0.82											
Room 103	EHS-062818-IA-103-UN	1.3		32				1.4		1.3											
Room 103	EHS-062818-SS-103-UN			12						43											
Room 103	EHS-062918-IA-103-OCC	1.3		4.1						0.79								0.26			
Room 104	EHS-062818-IA-104-UN	1.3		51				0.76		0.71								0.65			
Room 104	EHS-062918-IA-104-OCC	1.3		22																	
Room 109	EHS-062818-IA-109-UN	1.2		25																	
Room 109	EHS-062818-SS-109-UN			240						5.3											
Room 109	EHS-062918-IA-109-OCC	1.2		7.3																	
Room 120	EHS-062818-IA-120-UN	1.2		39						1.2											
Room 120	EHS-062818-SS-120-UN			1100						26											
Room 120	EHS-062918-IA-120-OCC	1.3		4.3																	
Room 120	EHS-062918-IA-120-OCC-DUP	1.3		4.3																	
Room 122	EHS-062818-IA-122-UN	1.2		30				2.3								1.3					
Room 122	EHS-062818-SS-122-UN			630																	
Room 122	EHS-062918-IA-122-OCC	1.3		12				0.73		0.61											
Room 127	EHS-062818-IA-127-UN	1.2		22				6.2		0.77											
Room 127	EHS-062818-OA-127-UN-DUP			2.4														0.5			
Room 127	EHS-062818-Oa-127-UN	1.4 J		2.4						0.66 J								0.54			
Room 127	EHS-062918-IA-127-OCC	1.3		6.8				0.9													
Room 127	EHS-062918-OA-127-OCC	1.3		2.5																	
Room 133	EHS-062818-IA-133-UN	1.4		22				1.1				1.1				0.94		0.21			
Room 133	EHS-062818-SS-133-UN			770												150					
Room 133	EHS-062918-IA-133-OCC	1.2		5.5																	
Room 135	EHS-062818-IA-135-UN	1.4		14				0.92		0.92						1.1		0.32			
Room 135	EHS-062818-IA-135-UN-DUP	1.3		14				1		1						0.97		0.25			
Room 135	EHS-062818-SS-135-UN			13				11 J		31				11 J							
Room 135	EHS-062818-SS-135-UN-DUP	25 J		11				28 J		32				78 J							
Room 135	EHS-062918-HVS-135-1	21		8																	
Room 135	EHS-062918-HVS-135-2	29		7.7																	
Room 135	EHS-062918-IA-135-OCC	1.2		3.2																	
Room 138A	EHS-062818-IA-138A-UN	1.6		26				1.8		1.6						0.81				140	
Room 138A	EHS-062918-IA-138A-OCC	1.2		2.9						1.3										7	
Room 139	EHS-062818-IA-139-UN	1.4		41				1.9		4.3		1.2				4.9		0.29		5.3	
Room 139	EHS-062918-IA-139-OCC	1.2		4.4				1.2		0.94						1.3				2.6	
Room 145	EHS-062818-IA-145-UN	1.2		7.2						0.82								0.22			
Room 145	EHS-062918-IA-145-OCC	1.3		3.7																	
Room 148	EHS-062818-IA-148-UN	1.2		32				0.92													
Room 148	EHS-062818-SS-148-UN			810																	
Room 148	EHS-062918-HVS-148-1			1800																	
Room 148	EHS-062918-HVS-148-2			2800 J																	
Room 148	EHS-062918-IA-148-OCC	1.1		4.2				1.6		0.78		8.6				1.2					
Room 151	EHS-062818-SS-151-UN			8.9														14			
Room 151	EHS-062918-HVS-151-1			12																74	
Room 151	EHS-062918-HVS-151-2			12																	
Room 149	EHS-062818-IA-151A-UN	1.2		14				2		1.7		1.2				0.94		1.9			
Room 149	EHS-062918-IA-151A-OCC	1.2		3.1																	
Room 168	EHS-062818-IA-164-UN	1.4		40				2.3		5.2											
Room 168	EHS-062818-SS-164-UN			17														11			
Room 168	EHS-062918-IA-164-OCC			3				2.3		1.7		2.4									

Appendix A
Summary Table of Detected Concentrations

Beech and Bonaparte

Location	Sample ID	Toluene	Q	Trichloroethene	Q	Xylene (m & p)	Q	o-Xylene	Q	m,p-Xylene	Q
Cafeteria	EHS-062818-EF-CAFA			26							
Cafeteria	EHS-062818-EF-CAFR										
Cafeteria	EHS-062818-IA-CAF-UN	6.8						3.2		9.2	
Cafeteria	EHS-062918-IA-CAF-OCC	0.62						0.22		0.58	
F Wing	EHS-062818-EF-FWING	5.9		340							
Gym	EHS-062818-EF-GYM	9.4		19							
Gym	EHS-062818-IA-GYM-UN	1						0.27		0.51	
Gym	EHS-062918-IA-GYM-OCC	0.54									
K Wing	EHS-062818-EF-KWING			31							
K Wing	EHS-062818-IA-K-UN	2.6						1.9		7.5	
K Wing	EHS-062818-OA-K-UN	0.5									
K Wing	EHS-062918-IA-K-OCC	0.83						0.16		0.45	
K Wing	EHS-062918-OA-K-OCC	140	J					4.9	J	12	J
Room 100	EHS-062818-IA-100-UN	3.6						0.6		1.6	
Room 100	EHS-062918-IA-100-OCC	0.85	J					0.14		0.35	
Room 100	EHS-062918-IA-100-OCC-DUP	1.2	J	0.16	J			0.19		0.44	
Room 103	EHS-062818-IA-103-UN	2.2						0.34		0.92	
Room 103	EHS-062818-SS-103-UN										
Room 103	EHS-062918-IA-103-OCC	0.76								0.36	
Room 104	EHS-062818-IA-104-UN	1.3						0.22		0.58	
Room 104	EHS-062918-IA-104-OCC	1.4		0.26				0.22		0.64	
Room 109	EHS-062818-IA-109-UN	3.4						0.26		0.7	
Room 109	EHS-062818-SS-109-UN			11							
Room 109	EHS-062918-IA-109-OCC	2						0.24		0.76	
Room 120	EHS-062818-IA-120-UN	2.2		0.48				0.37		1	
Room 120	EHS-062818-SS-120-UN										
Room 120	EHS-062918-IA-120-OCC	0.9	J					0.13	J	0.35	J
Room 120	EHS-062918-IA-120-OCC-DUP	1.7	J					0.3	J	0.7	J
Room 122	EHS-062818-IA-122-UN	6.2						0.61		1.5	
Room 122	EHS-062818-SS-122-UN										
Room 122	EHS-062918-IA-122-OCC	1.4						0.18		0.46	
Room 127	EHS-062818-IA-127-UN	5.1		0.23				0.37		1	
Room 127	EHS-062818-OA-127-UN-DUP	0.7		0.2	J					0.28	
Room 127	EHS-062818-Oa-127-UN	0.74		0.34	J						
Room 127	EHS-062918-IA-127-OCC	1.4						0.16		0.42	
Room 127	EHS-062918-OA-127-OCC	0.56		0.73							
Room 133	EHS-062818-IA-133-UN	3.1						0.47		1.3	
Room 133	EHS-062818-SS-133-UN										
Room 133	EHS-062918-IA-133-OCC	1.2						0.18		0.49	
Room 135	EHS-062818-IA-135-UN	4.1						0.97		2.7	
Room 135	EHS-062818-IA-135-UN-DUP	4						0.92		2.6	
Room 135	EHS-062818-SS-135-UN	540	J			69	J	25	J		
Room 135	EHS-062818-SS-135-UN-DUP	2900	J			410	J	150	J		
Room 135	EHS-062918-HVS-135-1	130								7.5	
Room 135	EHS-062918-HVS-135-2	90								7.6	
Room 135	EHS-062918-IA-135-OCC	0.85						0.24		0.58	
Room 138A	EHS-062818-IA-138A-UN	5.6						0.88		3	
Room 138A	EHS-062918-IA-138A-OCC	0.76						0.15		0.42	
Room 139	EHS-062818-IA-139-UN	17						2.2		6.1	
Room 139	EHS-062918-IA-139-OCC	3.4						0.37		0.97	
Room 145	EHS-062818-IA-145-UN	2.4						0.41		1	
Room 145	EHS-062918-IA-145-OCC	0.96						0.16		0.44	
Room 148	EHS-062818-IA-148-UN	4.4						0.22		0.58	
Room 148	EHS-062818-SS-148-UN	10		160							
Room 148	EHS-062918-HVS-148-1	8.9		380							
Room 148	EHS-062918-HVS-148-2			380							
Room 148	EHS-062918-IA-148-OCC	23		0.37				2.3		5	
Room 151	EHS-062818-SS-151-UN										
Room 151	EHS-062918-HVS-151-1										
Room 151	EHS-062918-HVS-151-2										
Room 149	EHS-062818-IA-151A-UN	11		0.77				5.2		15	
Room 149	EHS-062918-IA-151A-OCC	1.2						0.18		0.39	
Room 168	EHS-062818-IA-164-UN	15						1.7		5	
Room 168	EHS-062818-SS-164-UN	6.9									
Room 168	EHS-062918-IA-164-OCC	9						2.4		4.7	