

**From:** Brand, Jeff <Jeff.Brand@stantec.com>  
**Sent:** Friday, June 25, 2021 1:27 PM  
**To:** Reif, Maizie L - DNR  
**Cc:** John Lefebvre; Caine, Lynelle  
**Subject:** FW: Former Wausaukee Laundromat, 816 North Avenue, Wausaukee, WI (BRRTS #02-38-549224)  
**Attachments:** 2021.06.23 Figure 3\_Site Layout with Vapor Sample Locations.pdf; Tables\_1a\_1b\_Sub\_Slab\_Vapor\_sampling\_results.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Stantec is providing a project status update for the former Wausaukee Laundromat (BRRTS #02-38-549224), 816 North Avenue, Wausaukee, Wisconsin (the Site). This email presents the results of vapor investigation activities completed at the Site to date.

### **Vapor Investigation / Sampling**

In April 2021 Stantec secured access to the Siem Residence and the Ranger Family Restaurant to conduct vapor intrusion sampling. On June 2, 2021 Stantec completed the installation of two sub-slab vapor points. One vapor point was installed within the former Wausaukee Laundromat along the west central portion of the building (VP1). The second vapor point was installed within the Ranger Family Restaurant along the south central portion of the basement (VP2). Vapor point locations can be found on the attached Figure 3. The sub-slab vapor points consisted of a prefabricated stainless-steel Vapor Pin® equipped with a silicone sleeve which were inserted into a 5/8-inch diameter hole drilled through the concrete slab of each property building using a rotary hammer drill. After installing the vapor points, a soil gas air sample was collected from each location using a laboratory-supplied certified clean 6-liter, stainless-steel, cylindrical Summa® canister equipped with a stainless-steel flow controller to maintain a constant flow for an approximate 30-minute sampling period. The air samples were submitted for laboratory analysis for tetrachloroethene (PCE), trichloroethene (TCE), vinyl chloride, cis-1,2-dichloroethene, and trans-1,2-dichloroethene using EPA Modified Method TO-15.

On the same day, Stantec initiated ambient (indoor air) samples within the Siem residential property, the former Wausaukee Laundromat, and the Ranger Family Restaurant. Two ambient air samples were collected from the Siem residence. One sample was collected in the eastern half of the basement (IA-1) which has a dirt floor. The second sample was collected on the first floor of the residence (IA-2) along the north central portion of home. This portion of the home was built directly on the ground surface with no basement or concrete slab beneath. Likewise, an ambient air sample was also collected within the former Wausaukee Laundromat (IA-3) along the south central portion of the site building. Finally, two ambient air samples were collected from the Ranger Family Restaurant building. One sample was collected from the central portion of the restaurant's first floor within the kitchen (IA-4) and one within the restaurant's basement between two existing sanitary sewer drains (IA-5). It should be noted that the restaurant's basement only covers the southern half of the site building. Ambient air samples were collected from each location using a laboratory-supplied certified clean 6-liter, stainless-steel, cylindrical Summa® canister equipped with a stainless-steel flow controller to maintain a constant flow for an approximate 24-hour sampling period. The air samples were collected the following day on June 3, 2021 and submitted for laboratory analysis for PCE, TCE, vinyl chloride, cis-1,2-dichloroethene, and trans-1,2-dichloroethene using EPA Modified Method TO-15. Ambient (indoor air) sample locations can be found on the attached Figure 3.

Finally, on June 2, 2021, Stantec also collected a headspace air sample from the sanitary sewer manhole located at the intersection of Division Street and North Avenue (HA-1). The air sample was collected from the location using a laboratory-supplied certified clean 6-liter, stainless-steel, cylindrical Summa® canister equipped with a stainless-steel flow controller to maintain a constant flow for an approximate 30-minute

sampling period. The air sample was submitted for laboratory analysis for PCE, TCE, vinyl chloride, cis-1,2-dichloroethene, and trans-1,2-dichloroethene using EPA Modified Method TO-15. The headspace air sample location can be found on the attached Figure 3.

### **Findings / Results**

PCE and TCE were detected in sub-slab vapor samples collected from both the former Wausauke Laundromat and the Ranger Family Restaurant. Although detected, sample concentrations were below the target vapor risk screening levels for residential, small commercial, and large commercial/industrial sites. Similarly, PCE was also detected within ambient and headspace air samples collected from the Siem basement, restaurant basement, restaurant first-floor kitchen, and the sanitary sewer manhole. However, PCE concentrations were detected below indoor air vapor action levels for residential, small commercial, and large commercial/industrial sites. Air sample results can be found on the attached Tables 1a and 1b.

A second round of air sampling is scheduled to be completed during the heating season later this year.

Overall, the results show TCE and/or PCE concentrations showing up at all three properties. However, all results have been below vapor screening and vapor action levels. Stantec will notify both the Siem property owner as well and the Ranger Family Restaurant. We will explain that TCE and/or PCE concentrations were detected but are below screening levels and that no action is needed at this time. Further, we will let them know that another round of air sampling will be completed to confirm results later in the year during the heating season. Please contact myself or Lynelle if you would have any questions regarding the results or notifications.

Thanks.

#### **Jeff Brand**

Environmental Scientist

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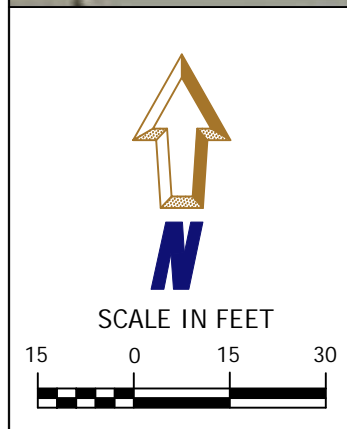
Stantec

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| LEGEND |   |
|--------|---|
|        | APPROXIMATE PROPERTY LINE (BRRTS #02-38-549224) |
|        | MANHOLE   |
|        | SUB-SLAB VAPOR POINT SAMPLE LOCATION            |
|        | INDOOR AIR SAMPLE LOCATION                      |
|        | HEADSPACE AIR SAMPLE LOCATION                   |

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|----------------|---------------|----------------------|
| DATE: 06/23/21 | DRAWN BY: JRB | PROJECT MANAGER: LPC |
|----------------|---------------|----------------------|

**SITE LAYOUT WITH VAPOR SAMPLE LOCATIONS**

FORMER WAUSAUKEE LAUNDROMAT  
 816 NORTH AVENUE  
 WAUSAUKEE, WISCONSIN

|                           |          |
|---------------------------|----------|
| PROJECT NUMBER: 193708272 | FIGURE 3 |
|---------------------------|----------|

1.a. Sub-Slab Vapor Sampling Analytical Results Table - VOCs, Former Wausaukee Laundromat, 816 N Avenue, Wausaukee, Wisconsin

| Sample Point                                       | Cannister Number | Location            | Vacuum Testing of Sampling Fittings**<br>(Pass/Fail) | Water Dam (Pass/Fail) | Date Sampled | Date Analyzed | Sample Duration (minutes)   | cis-1,2-Dichloroethylene | Tetrachloroethene (PCE) | trans-1,2-Dichloroethylene | Trichloroethene (TCE) | Vinyl Chloride |
|--|------------------|---------------------|--|-----------------------|--------------|---------------|-----------------------------|--------------------------|-------------------------|----------------------------|-----------------------|----------------|
| Target Vapor Risk Screening Levels (VRSLs) (µg/m³) |                  |                     |  |                       |              |               | Residential                 | NE                       | 1,400                   | NE                         | 70                    | 57             |
|  |                  |                     |  |                       |              |               | Small Commercial            | NE                       | 6,000                   | NE                         | 290                   | 930            |
|  |                  |                     |  |                       |              |               | Large Commercial/Industrial | NE                       | 18,000                  | NE                         | 880                   | 2,800          |
| VP-1   | 4074             | Laundromat Sub-Slab | Pass   | Pass                  | 6/2/2021     | 6/7/2021      | 30                          | <0.13                    | 390                     | <0.35                      | 1.9                   | <0.072         |
| VP-2   | 5961             | Restaurant Sub-Slab | Pass   | Pass                  | 6/2/2021     | 6/7/2021      | 30                          | <0.13                    | 480                     | <0.35                      | 0.49 J                | <0.072         |

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NE

= analyte detected exceeding the target sub-slab VRSL for residential buildings

= analyte detected exceeding the target sub-slab VRSL for small commercial buildings

= analyte detected exceeding the target sub-slab VRSL for large commercial/industrial buildings

= screening levels from USEPA Region 3 Screening Level Table - November 2017 and, if applicable, representing 1 in 100,000 cancer risk

= analyte not detected to a detection limit of x

= analyte exceeds the limit of detection but is below the limit of quantification

= a vacuum of greater than 50 inches of water was applied to the hoses and fittings used to collect each sample. A passing grade was given if no noticeable drop in vacuum was observed after at least

= not established

1.b. Indoor Air Vapor Sampling Analytical Results Table - VOCs, Former Wausaukee Laundromat, 816 N Avenue, Wausaukee, Wisconsin

| Sample Point                                | Cannister Number | Location                   | Shut-In Testing of Sampling Fittings ** (Pass/Fail) | Initial Vacuum Reading (mmHg) | Date Sampled | Date Analyzed | Sample Duration             | cis-1,2-Dichloroethylene | Tetrachloroethene (PCE) | trans-1,2-Dichloroethylene | Trichloroethene (TCE) | Vinyl Chloride |
|---|------------------|----------------------------|---|-------------------------------|--------------|---------------|-----------------------------|--------------------------|-------------------------|----------------------------|-----------------------|----------------|
| Indoor Air Vapor Action Level (VAL) (µg/m³) |                  |                            |   |                               |              |               | Residential                 | NE                       | 42                      | NE                         | 2.1                   | 1.7            |
|   |                  |                            |   |                               |              |               | Small Commercial            | NE                       | 180                     | NE                         | 8.8                   | 28             |
|   |                  |                            |   |                               |              |               | Large Commercial/Industrial | NE                       | 180                     | NE                         | 8.8                   | 28             |
| IA-1  | 5414             | Siem Basement (Dirt Floor) | Pass  | -30                           | 6/2/2021     | 6/5/2021      | 24-Hour                     | <0.13                    | 0.44 J                  | <0.35                      | <0.13                 | <0.072         |
| IA-2  | 4553             | Siem 1st Floor             | Pass  | -30                           | 6/2/2021     | 6/5/2021      | 24-Hour                     | <0.13                    | <0.18                   | <0.35                      | <0.13                 | <0.072         |
| IA-3  | 5460             | Laundromat                 | Pass  | -30                           | 6/2/2021     | 6/5/2021      | 24-Hour                     | <0.13                    | <0.18                   | <0.35                      | <0.13                 | <0.072         |
| IA-4  | 5416             | Restaurant Kitchen         | Pass  | -30                           | 6/2/2021     | 6/5/2021      | 24-Hour                     | <0.13                    | 0.60 J                  | <0.35                      | <0.13                 | <0.072         |
| IA-5  | 5400             | Restaurant Basement        | Pass  | -30                           | 6/2/2021     | 6/5/2021      | 24-Hour                     | <0.13                    | 23                      | <0.35                      | <0.13                 | <0.072         |
| HA-1  | 4781             | Sanitary Sewer Headspace   | Pass  | -30                           | 6/2/2021     | 6/5/2021      | 30-Minute                   | <0.13                    | 26                      | <0.35                      | <0.13                 | <0.072         |

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= analyte detected exceeding the indoor air VAL for residential buildings

= analyte detected exceeding the indoor air VAL for small commercial & large commercial/industrial buildings

= screening levels from USEPA Region 3 Screening Level Table - November 2017 and, if applicable, representing 1 in 100,000 cancer risk

= analyte not detected to a detection limit of x

= analyte exceeds the limit of detection but is below the limit of quantification

= not established

= cannister passed test if initial vacuum on sample cannister was greater than -25 mm of Mercury during initial shut in testing